
Research Articles

Attitudes of Students Toward the Credit Bank System and Mechanisms Driving Higher Education Sustainability for Esports Careers in Surat Thani Province

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Abstract

This qualitative study aimed to examine students' attitudes toward the credit bank system and identify mechanisms that may support sustainable higher education pathways to careers in the esports industry. The study focused on students in the lower northern region of Thailand and explored their perceptions of flexible learning, credit accumulation, and the development of esports-related competencies. Data were collected through semi-structured interviews with selected student informants. The interview data were analyzed thematically to identify key patterns and perspectives regarding the potential application of the credit bank system to esports-oriented education.

The findings revealed that most students expressed positive attitudes toward the credit bank system, particularly its potential to increase flexibility and learner autonomy. Students valued the opportunity to select courses according to their interests, abilities, and emerging labor-market demands. They perceived this flexibility as particularly relevant to the esports industry, which requires diverse competencies, including game design, game development,

event organization, teamwork, and competition management. Furthermore, students indicated that credits could potentially be accumulated through a range of esports-related learning experiences, including competitions, professional training, workshops, and project development. Such an approach was perceived as enabling students to integrate formal and experiential learning while developing practical skills and industry-relevant experience. Overall, the findings suggest that a flexible credit bank system could contribute to more personalized and career-oriented higher education by connecting students' learning pathways with the evolving requirements of the esports labor market. The study highlights the potential of credit accumulation mechanisms to support lifelong learning, competency development, and sustainable career preparation in the rapidly developing esports sector.

Keywords: Credit Bank System, Driving Sustainability, E-sports

Introduction

The rapid advancement of digital technology has transformed education, employment, and emerging industries, with esports becoming an increasingly important component of the digital economy. The expansion of esports has generated diverse career opportunities extending beyond professional players to include management, coaching, broadcasting, event organization, marketing, technology, and content production. Consequently, higher education institutions are increasingly expected to develop educational programs that provide students with both academic knowledge and industry-relevant competencies. Scott et al. (2021) emphasized that universities have responded to the growth of esports by developing academic programs, while also noting the need for greater clarity regarding curriculum content, learning outcomes, and alignment with the multidisciplinary nature of the esports industry. In Thailand, recent research has similarly highlighted the importance of understanding student factors influencing enrollment in esports-related higher education programs and the workforce requirements of the game and esports industries (Kunkum et al., 2025; Khanchai et al., 2025).

Esports education is particularly relevant to the development of 21st-century competencies. A systematic review by Zhong et al. (2022) found that esports participation can contribute to the development of skills relevant to contemporary society and employment, suggesting that structured educational pathways could potentially transform students' interests and experiences into recognized academic and professional competencies. However, the rapidly changing nature of the esports industry creates challenges for conventional higher education systems, particularly in relation to curriculum flexibility, competency recognition, and lifelong learning.

The credit bank system provides a potential mechanism for addressing these challenges by enabling learners to accumulate, transfer, and recognize learning achievements obtained through different educational pathways. In Thailand, research has demonstrated the potential of credit bank mechanisms to support lifelong learning and facilitate the management of flexible educational pathways (Siridhrungsri, 2020; Songsaen, 2023). More recently, Sreeenonchai and Sriburapapirom (2025) proposed a flexible learning system for Thai higher education that incorporates recognition of prior learning and credit bank implementation. Thammetar et al. (2025) further emphasized the potential of integrating academic credit bank systems with digital learning platforms to strengthen lifelong learning opportunities.

Despite these developments, a research gap remains concerning how the credit bank system can specifically support higher education pathways toward sustainable careers in esports. Existing studies have addressed esports curricula, student participation, workforce requirements, and flexible learning systems separately, but limited empirical attention has been given to their integration, particularly in the Thai and local contexts. Therefore, this study aims to examine students' attitudes toward the credit bank system and identify mechanisms that can support the sustainability of higher education pathways leading to esports careers in Surat Thani Province. The findings are expected to contribute to the development of flexible, student-centered, and industry-responsive higher education systems that better connect academic learning with emerging career opportunities in the esports industry.

Objective

To study the attitudes of students towards the credit system and the mechanisms for driving sustainability in higher education leading to a career in esports.

Literature Review

Higher Education, Lifelong Learning, and the Credit Bank System

The rapid transformation of higher education in the digital era has increased the need for flexible, learner-centered, and employment-oriented educational systems. Traditional higher education is generally organized around fixed programs and semesters, while technological change and emerging occupations require learners to continuously develop new knowledge and skills. In this context, the academic credit bank system has become an important mechanism for supporting flexible education and lifelong learning. The credit bank system allows learners to accumulate and potentially transfer academic credits obtained through different learning pathways. Siridhrungsri (2020) argues that this approach provides greater flexibility by recognizing learning acquired through formal and alternative educational experiences. Similarly, Songsaen (2023) emphasizes that credit bank mechanisms can connect different learning experiences and support individuals in continuing education according to their needs and circumstances. This flexibility is particularly relevant to emerging careers where professional competencies develop more rapidly than conventional curricula. In Thailand, Sereenonchai and Sriburapapirom (2025) emphasize flexible learning system design and lifelong learning as important directions for higher education. Thammetar et al. (2025) further demonstrate the potential of integrating credit accumulation with digital learning resources, particularly through Thailand's digital learning and MOOC ecosystem. These developments suggest that the credit bank system can function not merely as an administrative mechanism but as an institutional structure supporting lifelong learning, competency development, and educational sustainability.

Esports and Emerging Career Opportunities

The growth of esports has transformed competitive gaming into a complex technological, social, and economic industry. Career opportunities extend beyond professional players to include coaches, analysts, managers, broadcasters, event organizers, marketers, content creators, developers, and other digital professionals. Consequently, higher education institutions need to prepare students for diverse and rapidly changing occupational roles. Scott et al. (2021) emphasize the interdisciplinary nature of esports curricula and the need to develop competencies beyond gameplay, including communication, management, technology, business, and event production. In Thailand, Khanchai et al. (2025) highlight the importance of aligning higher education curricula with workforce requirements in the game and esports industries. Such alignment can enhance the relevance of university education and improve students' preparedness for employment.

Students' Attitudes Toward Esports Education and Career Pathways

Students' attitudes are critical to the acceptance and effectiveness of emerging educational programs. Positive perceptions of esports education may encourage participation, whereas uncertainty about career opportunities and the educational value of esports may discourage students. Kunkum et al. (2025) identify factors influencing students' enrollment decisions regarding higher education esports programs in Lower Northeastern Thailand, demonstrating the importance of understanding students' perceptions when developing esports-related educational pathways. The credit bank system may provide students with greater autonomy by allowing them to combine courses and learning experiences according to their career objectives. For esports-oriented students, this could include subjects in digital technology, communication, business, marketing, programming, media, event management, and game development. However, the effectiveness of such flexibility depends on students' awareness, acceptance, and understanding of the system. Examining students' attitudes is

therefore essential to determine whether the credit bank system can effectively support esports career development.

Esports Participation and Employability Skills

Esports participation may also contribute to the development of transferable competencies. Zhong et al. (2022), through a systematic review, identify associations between esports participation and skills such as communication, collaboration, problem-solving, strategic thinking, and digital competency. These capabilities are increasingly important for employability in the digital economy. From a higher education perspective, esports should therefore be viewed as more than recreational gaming. It can represent an interdisciplinary learning ecosystem connecting technological, managerial, creative, communicative, and entrepreneurial competencies. The credit bank system may provide an appropriate structure for recognizing and integrating these learning experiences into formal educational pathways.

Overall, the literature indicates that combining flexible credit accumulation, lifelong learning, industry-responsive curricula, and esports education may strengthen sustainable pathways from higher education to emerging esports careers. However, further research is needed to understand students' attitudes toward such mechanisms, particularly within the Thai higher education context.

Theoretical Framework

This study proposes that students' attitudes toward the credit bank system are influenced by educational flexibility, career relevance, skill development, and higher education sustainability. The framework integrates three key concepts: the credit bank system, flexible and sustainable higher education, and esports career development. The credit bank system supports flexible learning by allowing students to accumulate and transfer learning experiences. Flexible and sustainable higher education responds to technological changes, lifelong learning needs, and labor-market demands. Esports career development emphasizes

education that provides relevant knowledge and skills for employment in the growing esports industry. Therefore, positive perceptions of flexibility, accessibility, skill development, and career opportunities are expected to contribute to students' positive attitudes toward using the credit bank system as a pathway to esports careers.

Research Methodology

This study employed a qualitative research design to examine students' attitudes toward the credit bank system and mechanisms for promoting sustainability in higher education leading to careers in esports. The study focused on students' perceptions of curriculum flexibility, career-oriented learning, and credit accumulation for diverse educational and career opportunities.

Study Population and Participants. The participants consisted of 25 Grade 12 students from the lower northern region of Thailand, including Phitsanulok, Phetchabun, Sukhothai, Uttaradit, and Tak provinces. Participants were selected through purposive sampling based on their relevance to the research objectives and their knowledge or interest in higher education and esports-related career opportunities.

Research Instrument. Data were collected using a researcher-developed open-ended questionnaire/interview guide. The instrument was structured around three major dimensions: (1) curriculum flexibility, referring to students' perceptions of the ability to select courses according to their interests and the demands of the esports labor market; (2) career-oriented learning, concerning opportunities to develop specialized skills such as esports management, digital marketing, content creation, and streaming; and (3) credit accumulation, referring to the ability to accumulate and transfer credits for further education and career development.

Instrument Validation and Data Collection. The research instrument was reviewed by experts in education and esports to establish content validity and appropriateness. The questions were revised for clarity, relevance, and consistency with the research objectives before data collection. Data were collected between January 2024 and January 2025 through open-ended responses and interviews with the selected participants. Ethical principles,

including voluntary participation, informed consent, and confidentiality, were maintained throughout the research process.

Data Analysis. The collected qualitative data were analyzed using thematic analysis. Responses were organized, coded, categorized, and interpreted to identify recurring themes and patterns related to students' attitudes toward the credit bank system and mechanisms supporting sustainable higher education and esports career development. Triangulation and expert review were used to enhance the trustworthiness and credibility of the findings.

Results

The findings of this study are presented according to the research objectives, focusing on students' attitudes toward the credit bank system, curriculum flexibility, career-oriented learning, and credit accumulation as mechanisms for promoting sustainable higher education pathways toward careers in esports. The results combine descriptive findings from 25 respondents with qualitative evidence obtained from student interviews.

General Characteristics and Interest in Esports

The descriptive findings indicated that female respondents constituted the majority of the sample, with 15 students (60%), while the remaining 10 students (40%) were male. Regarding educational level, the largest group consisted of students in the fifth year of secondary education, representing 9 respondents (36%). These characteristics indicate that the participants were predominantly students approaching the transition from secondary education to higher education, making their perceptions of flexible and career-oriented educational pathways particularly relevant. In terms of interest in esports, 17 respondents (68%) reported a high level of interest, combining the categories of "very interested" and "interested." This finding demonstrates that esports was a relevant area of educational and career interest among the participants. In addition, 14 respondents (56%) reported having a fairly good understanding of the credit system. Although this suggests that more than half of the

participants possessed a basic understanding of credit-based learning, the finding also indicates a need to strengthen students' knowledge of how credit accumulation and transfer mechanisms can be applied to educational and career development.

Attitudes toward Curriculum Flexibility and the Credit System

The findings revealed generally positive attitudes toward curriculum flexibility and the credit system. Students perceived the credit system as a mechanism that could provide greater freedom in selecting courses and learning activities according to their individual interests, abilities, and future career goals. Rather than being restricted to a fixed curriculum, students believed that flexible learning pathways would allow them to develop specific competencies required by the rapidly changing esports industry. The quantitative findings support this perspective. Game design was identified as the course area with the highest level of interest, selected by 20 respondents (80%), followed by game development, selected by 18 respondents (72%). These findings suggest that students were particularly interested in technical and creative competencies directly connected to the esports and digital entertainment industries. The interview findings further indicated that students viewed curriculum flexibility as important because esports require a broad combination of skills. In addition to gaming abilities, students identified game design, game development, competition management, esports marketing, communication, team management, and data analysis as important areas of knowledge. Students therefore perceived flexible curricula as an opportunity to select learning experiences that correspond more closely with their personal strengths and career aspirations. Students also expressed the view that conventional curricula may not always respond sufficiently to the rapid technological changes occurring in esports. Flexible curricula were therefore perceived as a means of enabling students to select updated courses and activities that are more closely aligned with emerging occupational requirements. This included opportunities to participate in esports clubs, competitions, game development projects, training activities, and collaborative projects.

Learning Attitudes and Career-Oriented Education in Esports

The second major finding concerned students' attitudes toward learning that is directly aligned with career aspirations. The interviews indicated that students strongly associated the value of credit-based education with practical career preparation. They believed that esports-related education should provide knowledge and skills that can be directly applied to employment. Students identified game design, game development, esports competition management, marketing, communication, game analysis, team building, and data analysis as important competencies for future esports careers. These findings demonstrate that students did not perceive esports solely as competitive gaming. Instead, they recognized esports as a multidisciplinary industry requiring technical, managerial, creative, analytical, and communication skills. Students further believed that the credit system could connect academic learning with practical experiences. For example, participation in competitions, training programs, esports projects, and marketing-related activities could potentially contribute to students' learning and credit accumulation. Such an approach was viewed as beneficial because it would enable students to gain practical experience while simultaneously developing recognized educational outcomes. The interviews also revealed students' concerns regarding the relevance of some existing curricula to the labor market. Students suggested that esports-related courses should increasingly incorporate practical content, such as competition data analysis, digital marketing strategies, audience development, game development, and event management. Consequently, students viewed curriculum modernization as an important condition for ensuring that higher education remains responsive to changes in the esports industry.

Credit Accumulation and Diverse Learning Opportunities

Another important finding concerned students' attitudes toward accumulating credits through diverse educational and extracurricular activities. Students generally viewed credit accumulation as an opportunity to recognize learning that occurs beyond conventional classroom instruction. The quantitative findings showed that participating in esports competitions was the activity most frequently identified as suitable for recognition under the credit system, with 22 respondents (88%). This was followed by the creation of professional work, identified by 19 respondents (76%). These results demonstrate that students placed considerable value on practical experiences and tangible outputs as potential components of credit-based learning. The interview findings reinforced these results. Students believed that credits could be accumulated through activities such as esports competitions, professional projects, game development, game design, data analysis, training with esports teams, seminars, and other industry-related activities. Such opportunities were perceived as valuable because they allow students to develop competencies while gaining practical experience. Students also believed that accumulated credits could provide evidence of their learning and abilities when applying for further education or employment. In this respect, the credit system was viewed not merely as an administrative mechanism for recording academic achievement but as a potential tool for documenting progressive skill development. Furthermore, students perceived credit accumulation as supporting continuous learning. Because the esports industry is closely associated with rapidly changing technologies and occupational requirements, students believed that the ability to continuously accumulate and develop competencies would help them adapt to future changes in the industry.

Credit System as a Mechanism for Sustainable Higher Education and Esports Careers

The overall findings suggest that students perceive the credit system as having potential to support sustainability in higher education by connecting learning flexibility, practical experience, and career development. Students believed that flexible educational pathways could reduce the limitations associated with traditional curricula and provide opportunities for learners to construct educational experiences that correspond with their changing interests and career objectives. The findings also indicate that sustainability was understood not only in terms of completing a degree but also in terms of developing competencies that remain relevant over time. Students emphasized the importance of technological skills, practical experience, continuous learning, and adaptability. These factors were perceived as essential for maintaining employability in the rapidly developing esports industry.

Overall, the results demonstrate a positive attitude toward the integration of a credit bank system with flexible curricula and esports-oriented learning. Students viewed credit accumulation as a means of connecting classroom learning with real-world activities, while curriculum flexibility was perceived as enabling students to select educational experiences that correspond with their individual career aspirations. The combination of these mechanisms was considered capable of supporting continuous skill development, enhancing career preparation, and creating more flexible pathways between secondary education, higher education, and employment.

In summary, the quantitative and qualitative findings consistently indicate that students value a flexible, career-oriented credit system. The strongest areas of interest were game design and game development, while esports competitions and professional work were the activities most frequently considered appropriate for credit recognition. The interview findings further demonstrated that students expect higher education to provide practical, flexible, and continuously updated learning opportunities. Thus, the credit bank system, when combined with curriculum flexibility and recognition of diverse learning experiences, may serve as an

important mechanism for strengthening sustainable higher education pathways and preparing students for diverse careers within the esports industry

Discussion

The findings indicate that students generally recognize the importance of the credit bank system and mechanisms for promoting sustainable higher education pathways toward esports careers. These findings reflect the changing nature of the esports industry, increasing demand for specialized competencies, and the need for greater flexibility in higher education. Overall, the results suggest that a credit-based learning system can connect students' educational interests with emerging career opportunities in the esports sector.

First, students' positive attitudes toward the credit bank system are consistent with the principles of flexible and lifelong learning in Thai higher education. The system enables learners to accumulate and potentially transfer credits gained through different learning experiences, providing greater flexibility than conventional educational structures. Siridhrungsri (2020) and Songsaen (2023) emphasized that credit bank mechanisms can support the accumulation of learning outcomes, alternative learning pathways, and lifelong learning. Similarly, Sereenonchai and Sriburapapirom (2025) highlighted the importance of flexible educational systems that allow learners to adapt their learning pathways to changing personal and societal needs. These perspectives support the present findings that students may value the credit bank system as a means of managing education according to their interests, abilities, and career goals.

Second, the findings emphasize the importance of aligning higher education with workforce requirements in the esports industry. Khanchai et al. (2025) identified the need for Thai higher education curricula to respond to competencies demanded by the game and esports industries. Esports careers extend beyond professional gameplay to include game development, design, event management, content creation, marketing, communication, technology, and data-related occupations. Therefore, institutions should provide multidisciplinary learning opportunities that develop both industry-specific and transferable

competencies. This is consistent with Scott et al. (2021), who emphasized the importance of structured and multidisciplinary esports curricula in higher education. A credit bank system could allow students to combine esports courses with subjects such as business, marketing, communication, programming, digital media, and event management according to their career interests.

Third, the findings concerning students' interest in esports education are consistent with Kunkum et al. (2025), who examined factors influencing enrollment in esports-related higher education programs. Their findings highlight the importance of understanding students' motivations and providing educational pathways that correspond to diverse career aspirations. A flexible credit bank system can support this diversity by allowing students to construct individualized learning pathways rather than requiring all learners to follow identical programs.

The findings also suggest that credit accumulation can support competency development for esports careers. Zhong et al. (2022) reported that esports participation can contribute to the development of various 21st-century skills relevant to employability and digital careers. Furthermore, Thammetar et al. (2025) demonstrated the potential of integrating academic credit bank systems with digital learning and MOOC platforms to support lifelong learning. Such integration could enable students to accumulate recognized credits through online courses, professional training, workshops, and other learning experiences while continuously developing industry-relevant competencies.

Conclusion

This study aimed to examine students' attitudes toward the credit bank system and identify mechanisms for supporting sustainable higher education pathways toward careers in the esports industry. The findings indicate that students generally viewed the credit bank system positively, particularly its flexibility, learner autonomy, and ability to support individualized learning pathways. Students also recognized the value of accumulating credits through diverse learning experiences, including academic courses, training, competitions, workshops, and project-based activities.

The findings suggest that integrating formal and experiential learning within a credit bank framework could better align higher education with the evolving competency requirements of the esports industry. Such a system may support the development of practical skills, career readiness, and lifelong learning while providing students with greater opportunities to pursue their interests and abilities. Therefore, the credit bank system has significant potential as a flexible and sustainable mechanism for connecting higher education with emerging esports careers. The study highlights the importance of developing appropriate credit recognition and accumulation mechanisms to strengthen students' competencies and support sustainable career pathways in the rapidly growing esports sector.

Suggestions

Recommendations for the Public

For students and the general public, greater awareness of esports as a multidisciplinary career field should be promoted. Esports should not be viewed solely as competitive gaming but as an industry involving game development, content creation, event management, marketing, technology, teamwork, and business management. Public and educational institutions should therefore provide accessible information about career opportunities, relevant skills, and alternative learning pathways within the industry.

Recommendations for Future Research

Future studies should examine the implementation of credit bank systems in actual higher education settings and evaluate their effectiveness in improving students' competencies and employment outcomes. Quantitative and mixed-methods research involving larger and more diverse samples across different regions of Thailand would also strengthen the generalizability of the findings. Further research could investigate the perspectives of university administrators, educators, esports professionals, employers, and policymakers. In addition, longitudinal studies should examine whether credit-based esports

education contributes to students' long-term career development, lifelong learning, and sustainable employment.

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