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Integrated Education Programs and Their Role in Developing Creativity Competencies Among Students of the College of Physical Education and Sports Sciences

Peran Program Pendidikan Terpadu dalam Mengembangkan Kompetensi Kreativitas di Kalangan Mahasiswa Fakultas Pendidikan Jasmani dan Ilmu Olahraga

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ABSTRACT

The current research aims to assess the extent of integration within educational programs offered by colleges of physical education and sports sciences, as perceived by faculty members. It also explores the level of creative competencies exhibited by students in these colleges from the faculty's perspective. Furthermore, the research investigates the impact of integrated educational programs on enhancing students' creative capabilities. A descriptive research methodology was employed, incorporating both survey and correlational approaches. The study population consisted of faculty members from the colleges and departments of physical education and sports sciences at the Universities of Mosul and Al-Hamdaniya, encompassing four institutions (colleges and departments) and 296 faculty members. The primary research sample was randomly divided into three subgroups: an exploratory group, a preparation group, and a final application group, comprising 15, 168, and 112 participants, respectively. Data collection involved the development of two structured questionnaires: one focused on the characteristics of integrated education programs, and the other on students' creative competencies. These instruments were validated and administered to the designated samples. The collected data were analyzed using various statistical techniques, including means, standard deviations, Pearson correlation coefficients, the Spearman-Brown prophecy formula, and linear regression analysis. The findings revealed a statistically significant positive correlation between the implementation of integrated education programs and the development of creative competencies among students. The results suggest that such programs play a critical role in enhancing students' innovative thinking, athletic performance, and overall engagement by fostering a supportive and enriching educational environment, which positively impacts their performance during lessons.

Keywords: Integrated Education Programs, Creativity Competencies

INTRODUCTION

University education marks a transformative phase in an individual's life, offering valuable opportunities for both personal and professional development. During this period, students gain access to specialized and in-depth knowledge across various disciplines, allowing them to shape their academic and intellectual identities. Higher education institutions (Universities) are committed to fostering dynamic learning environments that promote critical thinking, intellectual independence, and meaningful

engagement with faculty and peers through dialogue and collaborative research. More than a process of knowledge acquisition, university education integrates theoretical learning with practical application. This holistic approach cultivates essential skills such as analytical reasoning, problem-solving, and strategic decision-making—skills that are crucial for career readiness and future challenges. Additionally, universities serve as hubs for innovation and research, offering students opportunities to contribute to scholarly publications and participate in projects that positively influence society. Therefore, university education is a long-term investment in human potential, empowering individuals to pursue their goals while expanding their understanding of the world. It plays a vital role in building a knowledgeable, progressive, and culturally enriched society.

Modern universities require progressive curricula that integrate diverse teaching methods and interdisciplinary approaches to create a well-rounded educational experience. Such curricula aim to address the varied needs of students by combining theoretical instruction with practical engagement, thereby improving learning outcomes and encouraging exploration from multiple perspectives. Achieving this vision demands the development of a flexible and responsive academic environment that aligns with the evolving expectations of today's learners. Rather than relying on traditional, compartmentalized instruction, contemporary educational programs should incorporate interactive and student-centered strategies—such as project-based learning, collaborative activities, and experiential methods. These approaches not only foster critical thinking and problem-solving skills but also support students' social and emotional growth. Furthermore, university programs should promote lifelong learning by equipping students with tools that enable a holistic understanding of knowledge.

The scope of education is no longer confined to conventional classrooms; it now encompasses alternative learning spaces such as science centers, libraries, and community venues, all of which enrich the educational journey. Embracing this broader vision reinforces the idea that learning continues beyond the academic setting and becomes an integral part of daily life. Integrated educational programs thus emerge as a powerful framework to address contemporary educational challenges. They prepare students not only for academic success but also for personal and social development, helping them become thoughtful and adaptive individuals. According to Wong-Ratcliff and Ho (2011), integrated education programs emphasize the value of individual differences and aim to cultivate inclusive learning environments that respect diversity. These programs operate on the belief that every student possesses the capacity to learn and contribute, regardless of their unique needs or abilities. As such, integrated education promotes equity and collaboration, laying the foundation for a more inclusive and cohesive society (Wong-Ratcliff & Ho, 2011, p. 103).

For the educational process to achieve its goals effectively, students must develop a range of skills, knowledge, and attitudes that empower them to think creatively and generate innovative solutions to both academic and real-world challenges. Among the most essential of these skills is creativity—a multifaceted process that involves critical thinking, imagination, and the ability to form unique connections between diverse ideas. In an era marked by rapid change and continuous advancement, fostering creativity in students is increasingly vital, as it serves as a foundation for their future success. Cultivating the next generation of innovative thinkers has become a central focus of educational systems worldwide. Creativity encompasses various dimensions, including analytical thinking, imaginative idea generation, and collaborative problem-solving.

Learning environments that promote experimentation, exploration, and hands-on application create fertile ground for students to develop and refine their creative abilities. In educational contexts, these abilities are often referred to as creative competencies—a set of skills that can be nurtured by cultivating a classroom culture that values curiosity, risk-taking, and flexible thinking.

To enhance these competencies, academic institutions must implement interactive teaching strategies such as group projects, open-ended tasks, and adaptable learning settings. Educators play a pivotal role in this process by establishing a supportive atmosphere where students feel confident expressing their ideas and exploring innovative approaches. Providing constructive feedback and encouraging active engagement are also key to unlocking students' creative potential. Creative competencies are thus critical components in preparing students for the demands of the modern world. They not only enhance individual problem-solving abilities but also foster adaptability and resilience in dynamic environments. As Łukasik et al. (2021) explain, creativity competencies encompass a spectrum of skills—including critical thinking, innovation, and cognitive flexibility—that enable individuals to think outside the box, generate novel ideas, and respond effectively to evolving circumstances. These competencies are integral to modern education, equipping learners with the tools necessary for success in both their personal and professional lives (Łukasik et al., 2021, p. 72).

Research Importance

This research highlights the critical role of integrated educational programs in enhancing the creative competencies of university students, particularly in the field of physical education and sports sciences. In a rapidly evolving world, fostering creativity is essential for preparing students to tackle academic and professional challenges with innovative solutions. The study underscores the need for modern curricula that blend theoretical knowledge with practical application, promote interdisciplinary learning, and create dynamic, inclusive environments where students can develop essential skills such as critical thinking, problem-solving, and adaptability. By focusing on creativity as a foundational element of student development, the research emphasizes the value of educational systems that prioritize interactive, flexible, and student-centered learning experiences. Moreover, it stresses the significant role educators play in nurturing creativity through supportive teaching strategies and classroom cultures that encourage experimentation and collaboration. Ultimately, this research contributes to the broader goal of equipping students with the creative competencies necessary for success in both academic and real-world contexts, while also supporting the development of an inclusive, innovative, and forward-thinking society.

Research Problem

Colleges of Physical Education and Sports Sciences play a crucial role in training future professionals capable of excelling in the sports field. However, based on the researcher's observations as a faculty member within these institutions, several issues hinder the effectiveness of their educational processes. One major challenge lies in the ambiguity surrounding the intended learning outcomes of various course curricula. This lack of clarity often leaves students uncertain about how to apply theoretical knowledge in practical, real-world situations, thereby creating a noticeable gap between theory and practice. As a result, learning tends to remain abstract, limiting students' ability to effectively implement what they've studied.

Additionally, the shortage of educational resources further compounds the issue. Inadequate access to modern sports equipment and suitable facilities restricts students'

opportunities to engage in hands-on practice, ultimately affecting their ability to develop and express innovative ideas. The reliance on outdated, traditional teaching strategies—mainly focused on rote learning—also inhibits the cultivation of critical thinking and creativity. Assessments often fail to measure students' full potential, overlooking their capacity for innovation and problem-solving. Another contributing factor is the lack of student involvement in the design of educational programs. When students are not actively engaged in shaping their academic experiences, the content often fails to meet their individual interests and aspirations, which can lead to disengagement and a sense of alienation. Furthermore, the limited professional development opportunities for faculty members restrict their ability to implement modern, integrated teaching methods that foster creativity and holistic learning. A general lack of shared understanding about the significance of creativity in sports education also persists, with many educators underestimating its importance. Societal and cultural influences further shape students' attitudes, where traditional norms may discourage creative expression and innovation. These complex challenges have led the researcher to formulate the following key questions to guide this study:

- To what extent are current educational programs in colleges of physical education and sports sciences integrated?
- Do students in these colleges possess creative competencies, and what is the level of these competencies?
- How do integrated educational programs contribute to the development of students' creative abilities, and what is the nature of this contribution?

METHOD

Research Methodology

According to Munot and Bairagi (2019), identifying an appropriate research methodology is a crucial step in addressing the research problem. It serves as a framework that informs the researcher about the types of data to be collected, the methods for gathering that data, and the statistical techniques suitable for analysis. This process helps ensure that the results obtained are accurate and grounded in reality (Munot & Bairagi, 2019, p. 70). In this study, the researcher adopted a descriptive approach, utilizing both the survey method and the correlational method. These methods were chosen because they align well with the nature of the research problem and effectively support the study's objectives.

Research Population

The target population for this study includes faculty members from colleges and departments of physical education and sports sciences located in the Nineveh Governorate for the academic year 2024–2025. The total number of participants is 296 faculty members. These individuals are affiliated with four academic units—colleges and departments—distributed across two universities in the region: the University of Mosul and the University of Hamdaniya. Detailed information about the research population is provided in Table (1).

Table 1: Presents the details of the research population.

No.	College / Department	University	Number of Instructors
1	College of Physical Education and Sports Sciences	Mosul	211

2	Department of Physical Education and Sports Sciences / College of Basic Education	Mosul	27
3	Department of Physical Education and Sports Sciences / College of Education for Women	Mosul	21
4	Department of Physical Education and Sports Sciences / College of Education	Al-Hamdaniya	37
Total			296

Main Research Sample

The entire research population, consisting of 296 faculty members, was selected as the main research sample using a comprehensive sampling technique. To facilitate the development and administration of the research questionnaires, the researcher divided the overall main research sample into three subgroups. The first subgroup was designated for conducting the exploratory study, the second was used for the preparation and refinement of the research instruments, and the third was allocated for the final application of the questionnaires. Details regarding the composition of the main research sample are provided in Table (2).

Table 2: Details of divisions of the main research sample.

Sample type	Number of Individuals	Percentage (%)
Exploratory Application	16	5.4
Preparation	168	56.8
Final Application	112	37.8
Total	**296**	**100**

Research Tools

In this research, the researcher employed a questionnaire as the primary tool for data collection, to address the research questions and achieve the stated objectives. According to Obaidat et al. (2015), the questionnaire is an effective method for gathering information, typically consisting of a series of statements or items that require responses from selected individuals within a given population (Obaidat et al., 2015, p. 106). Two separate questionnaires were developed for this research: the first aimed to assess the extent to which integrated educational programs are implemented in colleges and departments of physical education and sports sciences, while the second focused on evaluating the creative competencies of students within these institutions. The development of both questionnaires followed established scientific.

Drafting Items Research Questionnaire

To ensure the collection of precise and trustworthy data that genuinely reflects the participants' viewpoints, the questionnaire items were carefully crafted. The researcher conducted an extensive review of scholarly literature related to the concepts of integrated educational programs and creative competencies. Sources informing the development of the integrated education items included works by Bourke et al. (2022), Patra and Basantia (2021), Liu and Yan (2020), Usman et al. (2019), Esmaeilzadeh et al. (2019), Prajapati (2018), Heinrich (2017), Chetan (2016), Yang (2015), and Brauer and Ferguson (2015). For the creativity competencies component, references included Sacco et al. (2025), Haleuš and Faganel (2023), Ucan (2022), Lu and Kaiser (2022), Belur et al. (2022), Novakivska et al. (2021), Łukasik et al. (2021), Aziza (2019), Nagai et al. (2019), and Martinez-Villagrasa et al. (2018). Based on the insights from these sources, the researcher

developed two separate sets of statements—15 items for each questionnaire—tailored to measure the key variables under investigation.

Formulating Answer Alternatives for Questionnaire Items

Creating appropriate response options is essential to allow participants to express their views clearly and meaningfully. The researcher designed a set of response alternatives using a five-point Likert scale, enabling respondents to select the option that best aligns with their opinion on each item. This approach was chosen to capture data that accurately represents the perspectives of the sample. The scale and these alternatives and their weights are shown in Table (3).

Table 3: Shows the alternative answers to the items and their weights for the five-point Likert scale.

Alternatives	Always Applies	Often Applies	Sometimes Applies	Rarely Apply	Never Apply
Weights	5	4	3	2	1

Apparent Validity of Research Tools

According to Ahmed et al. (2022), apparent validity refers to an initial evaluation of how well a scale appears to measure the intended construct. It involves assessing whether the items are appropriately aligned with the underlying concept of the variable. This type of validity is typically determined through expert judgment, where specialists assess whether the content of the scale is suitable for the target population (Ahmed et al., 2022, p. 17).

To establish the apparent validity of both the Integrated Educational Programs Questionnaire and the Creativity Competencies Questionnaire in their preliminary versions, the researcher sought feedback from a panel of 11 experts specializing in teaching methods. These experts reviewed the clarity and relevance of the questionnaire items, as well as the appropriateness of the proposed response options. Following the review process, the researcher calculated the percentage of agreement among the experts for each item, using this measure to determine the overall level of consensus. These results are presented in Table (4). The expert panel also confirmed the appropriateness and validity of the response scale designed for the questionnaire items.

Table 4: Shows the results of the apparent validity of the research questionnaires.

Integrated Education Programs Questionnaire				**Creative Competencies Questionnaire**			
Item	Suitable	Not Suitable	Suitability Percentage	**Item**	Suitable	Not Suitable	Suitability Percentage
1	10	1	%90.90	**1**	11	-	%100
2	11	-	%100	**2**	10	1	%90.90
3	10	1	%90.90	**3**	11	-	%100
4	11	-	%100	**4**	11	-	%100
5	11	-	%100	**5**	9	2	%81.81
6	10	1	%90.90	**6**	10	1	%90.90
7	10	1	%90.90	**7**	9	2	%81.81
8	10	1	%90.90	**8**	9	2	%81.81

Integrated Education Programs Questionnaire				**Creative Competencies Questionnaire**			
Item	Suitable	Not Suitable	Suitability Percentage	**Item**	Suitable	Not Suitable	Suitability Percentage
9	10	1	%90.90	**9**	10	1	%90.90
10	10	1	%90.90	**10**	11	–	%100
11	11	–	%100	**11**	11	–	%100
12	11	–	%100	**12**	10	1	%90.90
13	10	1	%90.90	**13**	10	1	%90.90
14	11	–	%100	**14**	10	1	%90.90
15	10	1	%90.90	**15**	11	–	%100

Application of The Questionnaires to The Exploratory Sample

Once the initial drafts of the Integrated Educational Programs Questionnaire and the Creativity Competencies Questionnaire were completed, the researcher administered them to a randomly selected subgroup from the main research population. This exploratory sample consisted of 16 faculty members from colleges of physical education and sports sciences. The exploratory application was conducted on February 24, 2025. Following the administration, the researcher confirmed that the questionnaire items were clear and easily understood by the participants. Additionally, the average time required to complete both questionnaires was recorded, ranging between 12 to 15 minutes.

Application of The Questionnaires to The Preparation Sample

To finalize and refine the questionnaires, the researcher administered the preliminary versions of both tools to the preparation sample, which included 168 faculty members from various colleges and departments of physical education and sports sciences. This stage of the research was carried out between March 2 and March 5, 2025. Out of the distributed questionnaires, 149 were completed and returned, while 19 were not returned. The researcher proceeded to organize and encode the collected responses to perform the necessary statistical analyses aimed at confirming the validity and reliability of the tools.

Internal Consistency Validity

Internal consistency validity refers to the extent to which individual items within a scale accurately measure the underlying construct and demonstrate coherence with one another. It evaluates the degree of interrelatedness among the questionnaire items. One common method for assessing this consistency is the Pearson correlation coefficient, which measures the strength of the relationship between each item and the total score of the questionnaire. According to Alawi and Radwan (2008), a higher correlation between an item and the overall scale score indicates stronger internal consistency and greater reliability of the instrument (Alawi & Radwan, 2008, p. 371).

To assess the internal consistency of both the Integrated Educational Programs Questionnaire and the Creativity Competencies Questionnaire, the researcher calculated the Pearson correlation coefficients between the score of each item and the total score of the corresponding questionnaire. These calculations provided insight into how well each item aligned with the overall scale. The results of these analyses are presented in Table (5).

Table 5: Shows the results of the internal consistency of the research questionnaires.

Integrated Education Programs Questionnaire			**Creative Competencies Questionnaire**		
Item	Correlation with the total score	Significance level	**Item**	Correlation with the total score	Significance level
1	0.613	0.000	**1**	0.539	0.000
2	0.782	0.000	**2**	0.533	0.000
3	0.648	0.000	**3**	0.620	0.000
4	0.555	0.000	**4**	0.524	0.000
5	0.816	0.000	**5**	0.593	0.000
6	0.656	0.000	**6**	0.624	0.000
7	0.506	0.000	**7**	0.505	0.000
8	0.687	0.000	**8**	0.545	0.000
9	0.661	0.000	**9**	0.557	0.000
10	0.690	0.000	**10**	0.626	0.000
11	0.528	0.000	**11**	0.758	0.000
12	0.600	0.000	**12**	0.725	0.000
13	0.631	0.000	**13**	0.667	0.000
14	0.761	0.000	**14**	0.753	0.000
15	0.650	0.000	**15**	0.617	0.000

An examination of Table (5) reveals that all items within the Integrated Educational Programs Questionnaire, used in faculties and departments of physical education and sports sciences, demonstrated strong internal consistency with the overall scale. The Pearson correlation coefficients for these items ranged from 0.506 to 0.816. Similarly, the items in the Creativity Competencies Questionnaire, designed to assess students in the same academic fields, showed correlation values with the total score ranging from 0.505 to 0.758. All correlations were statistically significant at the 0.000 level, confirming the coherence of the items within each questionnaire. As a result, both instruments retained their original structure, each comprising 15 items.

Reliability Coefficient

To determine the reliability of both the Integrated Educational Programs Questionnaire and the Creativity Competencies Questionnaire used in colleges and departments of physical education and sports sciences, the researcher employed the split-half method. This approach involves dividing the questionnaire items into two groups—typically odd- and even-numbered items—and then calculating the correlation between the scores of the two halves to assess the consistency of the instrument. According to Miller and Lovler (2020), split-half reliability assesses the internal consistency of a scale by comparing the scores from the two halves. When both parts are equivalent in content and structure, this method provides an accurate measure of the scale's reliability (Miller & Lovler, 2020, p. 139).

In this study, each questionnaire—comprising 15 items—was split into two subsets: one containing the odd-numbered items and the other containing the even-numbered ones. The researcher then calculated the Pearson correlation coefficient between the two sets of scores to obtain the initial reliability value (half-reliability). To calculate the full reliability coefficient, the result was adjusted using the Guttman equation. The final reliability values for both tools are presented in Table (6).

Table 6: Shows the reliability of the research questionnaires.

Questionnaire	Half reliability	Total reliability	Processing
Integrated Education Programs	0.919	0.957	Guttman Formula
Creative Competencies	0.889	0.941	Guttman Formula

Final Form of the Research Questionnaires

Following the confirmation of both validity and reliability for the initial versions of the Integrated Educational Programs Questionnaire and the Creativity Competencies Questionnaire—designed for use in colleges and departments of physical education and sports sciences—the final format of each questionnaire was established with 15 items. Responses are collected using a five-point Likert scale, with the following options: Always applies, often applies, sometimes applies, rarely applies, and never applies. These options are assigned weights of 5, 4, 3, 2, and 1 for positively worded items. As such, a respondent's maximum possible score on either questionnaire is 75, while the minimum score is 15.

Final Administration of Research Questionnaires

Between March 18 and 20, 2025, the researcher conducted the final administration of two questionnaires: one focused on integrated education programs and the other on students' creative competencies, both within the context of physical education and sports sciences departments and colleges. The instruments were distributed to a sample of 112 faculty members from these academic units. By the end of the data collection period, 97 completed questionnaires were retrieved, while 15 participants did not submit their responses.

Statistical Methods

The researcher utilized the Statistical Package for the Social Sciences (SPSS) to conduct data analysis, applying various statistical techniques, including:

- Percentage to calculate conformity ratios.
- Pearson’s correlation coefficient to assess internal consistency.
- The split-half method and Guttman formula to evaluate reliability.
- Arithmetic means and standard deviation to determine levels using the category length approach.

To identify the levels of responses for individual items, dimensions, and the overall score of the Enlightened Leadership Questionnaire, the researcher employed the category length method, as detailed in Table (7).

Table 7: Shows the classification of levels according to category length.

Category Length (Raw)	Category Length (Calculated)	Interpretation Level
1 – (1 + 0.8)	1.00 – 1.80	Very Low
1.81 – (1.81 + 0.8)	1.81 – 2.60	Low
2.61 – (2.61 + 0.8)	2.61 – 3.40	Moderate
3.41 – (3.41 + 0.8)	3.41 – 4.20	High
4.21 – (4.21 + 0.8)	4.21 – 5.00	Very High

RESULTS AND DISCUSSION

Table (8) illustrates that the response levels to the statements in the Integrated Education Programs Questionnaire varied across close, ranging from very low to high. Specifically, statement (5) recorded a very low level, with an arithmetic mean of 1.62. Statements (3, 8, 10, and 14) were rated at a low level, with mean scores of 2.44, 2.30, 2.36, and 2.06, respectively. A group of statements—including (1, 2, 4, 6, 7, 9, 12, and 15)—fell into the medium range, with means of 2.96, 2.91, 2.76, 2.80, 2.68, 2.93, 3.33, and 2.84. Meanwhile, statements (11 and 13) received high-level ratings, achieving mean scores of 3.66 and 3.68. Overall, the questionnaire yielded an average performance level, with a total arithmetic mean of 2.75.

The researcher attributes this moderate result of the survey of integrated educational programs in colleges and departments of physical education and sports sciences to several factors. One possible explanation is the limited use of integrated assessment strategies within the programs, which may hinder the education system's ability to evaluate instructional effectiveness and student learning outcomes accurately. Moreover, educational institutions may rely too heavily on conventional testing methods, with insufficient integration of diverse assessment tools such as self-evaluation and peer review. Another contributing factor is the disconnect between theoretical content and practical application, which could negatively impact students' comprehension, particularly of abstract or conceptual material like mathematical principles.

Additionally, the current educational model employed across these colleges and departments may adopt a standardized approach that overlooks the varied needs of individual learners, thereby diminishing the overall quality of the learning experience. The lack of regular curriculum updates further compounds the issue, limiting the programs' alignment with contemporary trends and developments in physical education and sports sciences. Weaknesses in academic evaluation practices may also make it difficult to monitor student progress effectively. Finally, inadequate academic support, whether due to limited resources or ineffective support mechanisms, along with a lack of proper incentives for students with special needs, may contribute to reduced student motivation and achievement.

Prajapati (2018) describes integrated education programs as a contemporary educational approach designed to unify multiple academic disciplines within a cohesive learning framework. This method supports a more fluid and interconnected learning experience, making it easier for students to engage with and comprehend the material. Rather than treating each subject area in isolation, integrated education merges different scientific fields into a single, multidisciplinary curriculum. It emphasizes active learning strategies, encouraging students to participate through hands-on activities, collaborative projects, and group discussions, all of which contribute to deeper comprehension and increased engagement with the subject matter (Prajapati, 2018, p. 198).

Table 8: Levels of the integrated education programs questionnaire statements.

No.	Statement	Mean	Standard Deviation	Level
1	The college or department offers diverse teaching methods, including active and interactive learning, to enhance students' educational experience.	2.96	1.602	Moderate
2	It strives to create a learning environment that encourages student interaction and fosters a deep understanding of educational materials.	2.91	1.590	Moderate

3	It adopts multifaceted assessment strategies to ensure the measurement of teaching effectiveness and student success.	2.44	1.422	Low
4	It implements educational programs that connect scientific theories with practical skills in the field of sports.	2.76	1.505	Moderate
5	It considers cultural diversity and individual differences among students when designing curricula to create an inclusive environment.	1.62	1.064	Very Low
6	It uses modern technologies in teaching to enhance learning effectiveness and provide innovative educational resources.	2.80	1.462	Moderate
7	It supports extracurricular activities that enhance students' skills and facilitate social relationship development.	2.68	1.553	Moderate
8	It regularly reviews and updates curricula to align with the latest scientific developments and global standards.	2.30	1.298	Low
9	The college encourages students and faculty to engage in scientific research and promote a research-oriented culture.	2.93	1.460	Moderate
10	It implements a system to monitor students' academic performance through regular assessments and continuous follow-up.	2.36	1.512	Low
11	It supports balancing theoretical study and practical skills through field training.	3.66	1.528	High
12	It designs flexible educational programs that allow students to adapt to their individual learning styles.	3.33	1.422	Moderate
13	It provides postgraduate programs aimed at deepening knowledge and advancing scientific research in physical education fields.	3.68	1.389	High
14	It offers individual academic support for students who need extra help in specific areas.	2.06	1.361	Low
15	It offers scholarships and academic excellence awards to motivate students and encourage them to achieve their goals.	2.84	1.518	Moderate
Overall Score of Questionnaire Scale		2.75	1.413	Moderate

Table (9) indicates that the results of the Creativity Competencies Questionnaire fell primarily within the medium and low ranges. Specifically, statements (1, 2, 4, 5, 6, 9, 11, and 15) were rated at a medium level, with arithmetic means of 3.16, 2.99, 2.96, 2.86, 3.12, 3.16, 2.76, and 2.73, respectively. In contrast, statements (3, 7, 8, 10, 12, 13, and 14) received low-level ratings, with mean scores of 2.34, 2.16, 2.53, 2.37, 2.28, 2.40, and

2.48. On the whole, the questionnaire achieved an average level of performance, reflected by an overall mean of 2.68.

The researcher attributes these moderate results to several underlying factors. One of the most significant is the students' limited motivation to experiment with new ideas or engage in unfamiliar activities, particularly within the context of sports. This lack of curiosity and willingness to take risks may hinder the development of creative skills. Furthermore, many students appear to struggle with thinking innovatively and generating original ideas that could positively influence various areas of physical education and sports. This shortfall can impair their ability to effectively train or teach their peers due to underdeveloped creative thinking abilities. Another contributing factor may be poor time management skills, which limit students' capacity to dedicate sufficient time to creative pursuits or academic excellence. Additionally, the absence of effective strategies for handling high-pressure situations points to weaknesses in quick decision-making and problem-solving skills. Students also tend to undervalue the importance of seeking guidance from experts or specialists, which can restrict their exposure to diverse perspectives and hinder creative growth.

Moreover, many students feel uncomfortable expressing their ideas or suggestions openly, which contributes to an educational environment that lacks openness to innovation. This reluctance to share and discuss new concepts creates barriers to collaboration, stifles creativity, and limits leadership potential and resilience among students.

According to Aziza (2019), creativity competencies encompass a broad range of skills that enable individuals to think critically, innovate, and adapt to new environments. These include the ability to analyze situations objectively, generate original ideas, work effectively in teams, grasp foundational concepts, and maintain a strong drive for learning. Creativity also involves a willingness to take calculated risks, encouraging exploration and discovery in various fields (Aziza, 2019, p. 570).

Table 9: Levels of the Creative Competencies questionnaire statements.

No.	Statement	Mean	Standard Deviation	Level
1	Students demonstrate problem-solving skills during lessons and develop innovative solutions.	3.16	0.838	Moderate
2	They collaborate effectively in group activities, enhancing their creativity and idea-sharing abilities.	2.99	0.798	Moderate
3	They show a passion for exploration and trying new things to develop their creativity in various sports fields.	2.34	1.128	Low
4	They are proficient in using technology as a learning tool and in innovating new ways to present sports ideas.	2.96	1.082	Moderate
5	They present valuable projects that reflect their creativity and unique perspectives in physical education.	2.86	1.155	Moderate
6	They accept failure as part of the learning process and are willing to experiment and innovate.	3.12	1.113	Moderate

7	They generate new ideas for designing sports programs and activities that can lead to positive change.	2.16	1.071	Low
8	They contribute to peer learning due to their strong creative thinking abilities.	2.53	1.152	Low
9	They strive to identify their own needs and take initiative with their ideas rather than relying solely on given instructions.	3.16	1.089	Moderate
10	They use effective time management strategies and allocate time for creativity and diligence in their lessons.	2.37	1.228	Low
11	They demonstrate noticeable creativity even under pressure, showcasing their ability to think effectively in critical moments.	2.76	1.429	Moderate
12	They consult with a variety of experts and specialists to gain new and comprehensive perspectives.	2.28	1.328	Low
13	They create new educational activities and teaching methods that help peers better understand sports concepts.	2.40	1.196	Low
14	They feel comfortable expressing their ideas and suggestions, which fosters a culture of discussion and creativity in class.	2.48	1.374	Low
15	They take proactive steps in developing their ideas and demonstrate leadership and resilience.	2.73	1.517	Moderate
	Overall Score of Questionnaire Scale	2.68	1.214	Moderate

Table (10) reveals a statistically significant positive correlation between integrated education programs and students' creativity competencies, with a correlation coefficient of 0.613 and an F-value of 149.608 at a significance level of 0.000. The data also indicate that integrated education programs account for approximately 37.5% of the variance in creativity competencies ($R^2 = 0.375$). This suggests that about 37% of the differences in students' creative abilities can be attributed to the integrated education approaches used in faculties and departments of physical education and sports sciences, while the remaining variance is influenced by other factors. From the researcher's perspective, integrated education represents a progressive educational model that breaks away from traditional, isolated curricula. It fosters a dynamic and holistic learning environment that supports diverse instructional strategies and active student engagement. By bridging theoretical knowledge with practical application, these programs significantly enhance students' critical thinking and creativity. The integration of classroom learning with hands-on, collaborative experiences allows students not only to better understand course content but also to develop innovative approaches to problem-solving.

Moreover, integrated education provides learners with the chance to explore a variety of instructional methods, encouraging experimentation and the development of original ideas. This flexibility empowers students to overcome conventional learning

barriers, promotes independence, and nurtures creative thinking. As a result, the influence of integrated education on students' creative competencies becomes evident in both academic performance and personal growth. It motivates learners to think independently, innovate within their fields, and achieve success across various academic and athletic contexts. Therefore, integrated education programs are essential to contemporary educational systems. Their strong impact on fostering creativity underscores their value in improving the overall quality of education and outcomes in physical education and sports sciences.

Table 10: The relationship between integrated education programs and creative competencies.

Independent Variable	Dependent Variable	Correlation coefficient (r)	Contribution ratio (r2)	F-Value	Significance Level
Integrated Education Programs	Creative Competencies	0.613	0.375	149.608	0.000

CONCLUSIONS

- The findings from the survey on integrated education programs within the colleges and departments of sports and scouting activities revealed a moderate level of curriculum implementation. While some strengths were identified, the results suggest a need for further development to strengthen collaborative learning and enhance the effectiveness of team dynamics within these programs.
- The assessment of creativity competencies among students in physical education and sports sciences also indicated a moderate level. This reflects a foundational presence of creative skills, but highlights the need for targeted strategies to further cultivate students' innovative thinking, especially in the application of both theoretical and practical content.
- The results showed a positive correlation was identified between integrated education programs and the development of creativity competencies. The data suggest that well-designed integrated curricula play a significant role in enhancing students' creative capabilities, which can, in turn, improve athletic performance, foster a stronger sense of support, and contribute to better engagement and outcomes during educational sessions.

Recommendations

- It is recommended that a comprehensive evaluation of the current curricula in faculties and departments of physical education and sports sciences be undertaken. This review should prioritize the integration of modern instructional approaches that emphasize interactive and collaborative learning. To support this shift, training workshops should be organized for faculty members to familiarize them with contemporary integrated education strategies, such as project-based learning, experiential learning, and the use of educational technology. These efforts will help strengthen the connection between students and the learning content.
- Faculties and departments of physical education and sports sciences are encouraged to expand practical training opportunities for students. This includes increasing hands-on activities through placements in sports clubs and training centers, as well as organizing extracurricular initiatives focused on nurturing creativity—such as innovation challenges, design thinking labs, and student-led projects. These experiences allow students to apply academic knowledge in real-world contexts and develop essential problem-solving and innovation skills.

- It is also advised to offer targeted academic support for students facing challenges in skill development. Personalized guidance and mentorship can significantly enhance creative competency growth. Furthermore, establishing partnerships with local sports organizations, schools, and clubs can provide students with valuable field training experiences. These partnerships should aim to develop joint training programs, enabling students to gain insights from professionals in various areas of sport.
- Finally, organizing collaborative events—such as joint workshops, conferences, and seminars—can create opportunities for students to engage with industry experts, share ideas, and express their perspectives. These activities foster a supportive learning environment, enhance motivation, and contribute to the overall development of students' creative and professional abilities.

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