

# AI in Sports Media Education: A Conceptual Framework for Palestinian Universities

Ahmed Harb

<sup>1</sup>Universiti Utara Malaysia, Malaysia

\*Corresponding author: abumero92@gmail.com

Received: 1<sup>st</sup> July 2025; Revised: 2<sup>nd</sup> October 2025; Accepted: 15<sup>th</sup> December 2025

## ABSTRACT

*Artificial Intelligence (AI) is increasingly reshaping educational practices, with sports media education emerging as a critical yet underexplored area of transformation. While global literature highlights the potential of AI tools such as automated journalism and computer vision current pedagogical models often overlook the specific constraints of low-resource environments. This study addresses this gap by proposing the "AIMES" (Artificial Intelligence for Media Education in Sports) framework, a context-sensitive model designed for Palestinian universities. The framework integrates five core components: AI-Pedagogical Integration, Critical AI Literacy, Industry Alignment, Contextual Adaptation, and Student Empowerment. To validate the perceived utility of this framework, a quantitative survey was conducted with 51 media students in Palestine. Preliminary findings suggest that while students recognize the transformative potential of AI (positive correlation with engagement), structural barriers remain a significant hindrance. By synthesizing theoretical modelling with empirical insights, this study provides a roadmap for educators and policymakers to integrate AI into sports media curricula in conflict-affected and developing regions.*

**Keywords:** Artificial Intelligence; Sports Media Education; AIMES Framework; Digital Pedagogy; Palestinian Higher Education.

## 1. INTRODUCTION

Artificial Intelligence (AI) is rapidly reshaping higher education by redefining teaching strategies, content delivery, and student engagement. Its integration has extended across a range of academic disciplines, yet its application in specialized domains such as sports media education remains significantly underexplored (Zawacki-Richter et al., 2019). As educational institutions seek to align curricula with the professional demands of the 21st century, AI presents opportunities to transform how students are prepared for the evolving landscape of sports journalism, automated broadcasting, and digital analytics (Selwyn, 2019; Holmes et al., 2021). The Evolving Sports Media Landscape Sports media is inherently interdisciplinary, encompassing journalism, broadcasting, and data analytics. In recent years, the industry has been disrupted by AI technologies—ranging from natural language processing (NLP) for automated match reports to computer vision for player tracking (Amara, 2021). This industrial shift necessitates a parallel pedagogical innovation: higher education must equip students not only with technical proficiency in these tools but also with a critical understanding of the ethical and professional implications of algorithmic media production.

Within the Palestinian context, the integration of AI is both promising and problematic. On one hand, there is a strong interest among university students in digital communication, as media serves as a vital tool for expression and cultural resistance (Hilal & Barakat, 2020). On the other

hand, persistent structural challenges—including limited digital infrastructure, insufficient funding, and geopolitical instability—constrain the adoption of emerging technologies (Abu-Amsa & Armstrong, 2020). Consequently, educational innovation in this region must be not only technologically informed but also socio-politically responsive. Despite the growing body of research on AI in education, two critical gaps remain:

1. Theoretical Gap: Most existing models focus on STEM or general education, lacking specificity for the unique demands of sports media (Alam & Tiwari, 2021).
2. Contextual Gap: Proposed frameworks often assume the high-resource infrastructure of Western institutions, making them difficult to adapt for conflict-affected or economically constrained regions like Palestine.

To address these gaps, this paper aims to:

1. Propose a specialized conceptual framework (AIMES) for integrating AI into sports media education.
2. Empirically investigate the perceptions of Palestinian media students regarding AI adoption and its challenges.
3. Provide actionable recommendations for curriculum reform in low-resource environments.

This study contributes to the existing body of knowledge in three keyways. First, it offers a novel theoretical contribution by introducing the AIMES Framework, which translates general AI pedagogical theories into specific applications for sports media. Second, it provides rare empirical data from the Palestinian context, offering a voice to students in a region often underrepresented in digital education discourse (Affouneh et al., 2020). Finally, practically, the findings offer actionable guidelines for university administrators to develop AI-resilient curricula that remain effective even within resource-constrained environments. The remainder of this paper is organized as follows: Section 2 reviews the relevant literature on AI in education and sports media, identifying key theoretical underpinnings. Section 3 introduces the proposed AIMES Framework, detailing its five core components. Section 4 outlines the methodology used for the empirical survey. Section 5 presents the results and discussion of the student survey. Finally, Section 6 concludes with implications for policy and practice.

## **2. LITERATURE REVIEW**

### **2.1 Artificial Intelligence in Higher Education**

Artificial Intelligence (AI) has become a central driver in the transformation of higher education systems worldwide. From adaptive learning platforms and intelligent tutoring systems to AI-supported assessment tools, the integration of intelligent technologies has influenced instructional design, learner engagement, and institutional decision-making (Zawacki-Richter et al., 2019). AI is not only facilitating personalization in education but also streamlining administrative tasks, optimizing learning analytics, and enhancing pedagogical efficiency (Holmes et al., 2021). However, despite the breadth of applications, the adoption of AI in education tends to concentrate on STEM disciplines, with limited exploration in the humanities, arts, and media education (Alam & Tiwari, 2021).

### **2.2 AI in Media and Communication Education**

In media and communication studies, AI is increasingly used in automated journalism, sentiment analysis, real-time broadcasting, and multimedia content creation (Broussard, 2019). These

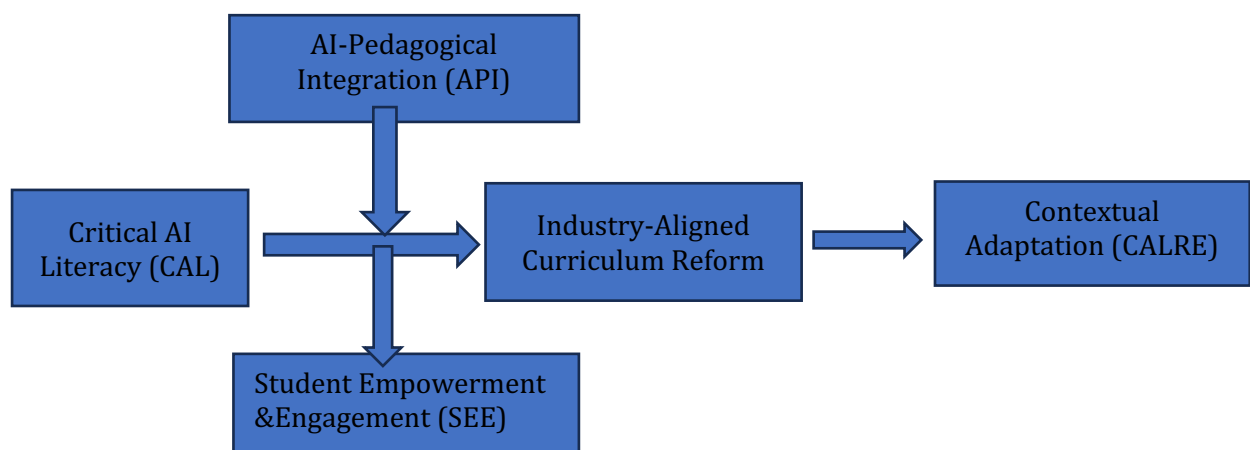
innovations have prompted a reconsideration of curricula to include data literacy, AI ethics, and algorithmic accountability. Journalism schools, for instance, are beginning to teach students how to work with AI-assisted news production tools and how to critically assess the social impact of such technologies (Diakopoulos, 2019). Nonetheless, the literature reveals a theoretical gap: while some work has examined AI's influence on newsrooms, few conceptual frameworks address how AI transforms the pedagogical structure within specialized fields such as sports media. While AI significantly reshapes journalism and media studies, its pedagogical role in sports media remains under-theorised. This relationship is visualised in *Figure 1*, which situates AI within the intersection of education, media innovation, and sports-specific practices.

### 2.3 Sports Media Education: Evolving Demands

Sports media education is a rapidly evolving sub-discipline combining media production skills with sports journalism, commentary, and digital broadcasting. With the proliferation of live-streaming technologies and sports analytics, students must now acquire technical competencies in video editing, data visualization, and social media storytelling (Pedersen, 2017). The integration of AI further complicates this landscape, as tools like computer vision, virtual commentators, and automated highlight generation are reshaping how sports events are produced (Price et al., 2020). Despite these industry shifts, educational responses have been slow, with little scholarly guidance on how sports media programs can embed AI into teaching. The convergence of AI-driven media tools and sports broadcasting establishes new demands for curricular reform. Figure 1 illustrates how AI operates as both a technological driver and a pedagogical catalyst within sports media education.

### 2.4 Contextual Challenges in Palestine

The Palestinian higher education sector faces numerous structural barriers to digital transformation, including unstable internet access, financial limitations, and geopolitical instability (Hilal & Barakat, 2020). While universities in the region are increasingly offering programs in communication, the integration of advanced technologies remains minimal. Students often rely on outdated pedagogical models that do not reflect the global media industry, and instructors frequently lack professional development opportunities in digital innovation (Abu-Amsha & Armstrong, 2020). This context highlights the practical gap in aligning Palestinian media education with AI-enhanced strategies. The discrepancies between global AI-enhanced sports media education and Palestinian higher education are highlighted in Figure 1, which maps the shifting educational expectations driven by AI in media innovation.



**Figure 1.** Conceptual positioning of Artificial Intelligence within Sports Media Education.

Source: Author's illustration (2025).

### 3. RESEARCH METHODOLOGY

#### 3.1 Research Philosophy and Approach

This study adopts a positivist research philosophy, which posits that reality is objective and can be measured through quantifiable data (Maretha, 2023). This lens is appropriate as the study aims to critically analyse the "*cause and effect*" relationship between AI integration and student readiness. aligned with this philosophy, the research utilizes a deductive approach. Rather than building a new theory from scratch, this study tests the applicability of the proposed AIMES framework by analysing empirical data collected from the student body (Proudfoot, 2023).

#### 3.2 Research Design

A quantitative descriptive research design was selected to identify the "*how*" and "*what*" of the current phenomenon (Olawale et al., 2023). This design enables the measurement of student perceptions regarding the five pillars of the AIMES framework. By utilizing a cross-sectional survey strategy, the study captures a snapshot of the current educational landscape in Palestinian universities, allowing for the identification of structural gaps and opportunities for AI integration (Mazhar et al., 2021).

#### 3.3 Population and Sample

The study targeted undergraduate students currently enrolled in media and sports journalism programs. A convenience sampling strategy was employed to recruit accessible participants.

- **Sample Size:**  
The final dataset comprises N=51 valid responses. While this represents a pilot sample, it provides sufficient statistical power for descriptive analysis in this exploratory phase.
- **Inclusion Criteria:**  
Participants were required to be active students in media faculties with a basic understanding of digital tools.

#### 3.4 Instrumentation and Data Collection

Data was collected using a structured electronic questionnaire consisting of 15 items. The instrument was designed to operationalize the research objectives:

1. **Demographics:** (Gender, Year of Study)
2. **Framework Evaluation:** Items measured on a 5-point Likert Scale (1 = Strongly Disagree to 5 = Strongly Agree), categorized into the AIMES components: Pedagogical Integration, Industry Alignment, and Contextual Challenges.

The data collection process prioritized efficiency and reach, utilizing digital distribution to overcome geographical barriers (Awal et al., 2022).

#### 3.5 Data Analysis Strategy

The collected data were processed using SPSS (Statistical Package for the Social Sciences). The analysis focused on:

- **Descriptive Statistics:** Calculating Means (\$M\$) and Standard Deviations (\$SD\$) to determine the ranking of student priorities.

- Reliability Analysis: Ensuring the internal consistency of the questionnaire items.

This analytical approach ensures that the interpretation of the "*transformation of sports media education*" is grounded in statistical evidence rather than anecdotal observation (Zhang et al., 2024).

### 3.6 Ethical Considerations

Strict ethical protocols were observed throughout the research process. Informed consent was obtained from all participants, with a clear explanation of the study's aim and the voluntary nature of participation (Mirza et al., 2023).

- Anonymity: No personally identifiable information (PII) was collected, ensuring participant confidentiality.
- Integrity: The study adhered to principles of academic honesty, ensuring that data was not manipulated to fit the proposed framework.
- Risk Mitigation: The survey design ensured no physical, social, or psychological harm would come to participants.

## 4. THE CONCEPTUAL FRAMEWORK: AIMES

To bridge the theoretical and practical gaps identified above, this study proposes the AIMES Framework (Artificial Intelligence for Media Education in Sports). Unlike generic educational models, AIMES is contextually tailored to low-resource environments such as Palestine. It consists of five interlinked components designed to integrate AI into sports media education effectively.

The first component, AI-Pedagogical Integration (A), moves beyond theoretical understanding to practical application. It emphasizes embedding AI tools directly into instructional practices, such as AI-assisted content creation and adaptive learning platforms, to simulate real-world media environments (Holmes et al., 2021). This approach shifts the focus from merely "learning about AI" to actively "learning with AI," encouraging hands-on engagement and experiential learning.

The second component, Industry Alignment (I), aims to bridge the gap between classroom learning and professional newsroom practices. By aligning educational outcomes with evolving industry demands and establishing partnerships with sports media organizations, students gain exposure to the automated tools such as AI-assisted match reporting that are currently in use in the global sports market (Pedersen, 2017).

The third component, Media Literacy (Critical & Ethical) (M), focuses on developing the "Critical Technician." Students are trained to critically evaluate AI's ethical dimensions, including algorithmic bias in player statistics, transparency in automated reporting, and the potential misuse of technologies such as deep fakes in sports narratives (Diakopoulos, 2019).

The fourth component, Empowerment of Students (E), addresses AI-related anxiety by promoting learner-centred strategies such as project-based learning and student-led content creation. This approach encourages students to perceive AI as a collaborative tool that enhances creativity rather than as a replacement for human input (Selwyn, 2019).

Finally, Social and Contextual Adaptation (S) ensures the framework is feasible within Palestine's infrastructural and financial constraints. It recommends the use of open-source AI tools, offline learning modules, and mobile-first applications to maximize accessibility and scalability despite geopolitical and resource limitations (Hilal & Barakat, 2020).

Together, these five components create a holistic, context-sensitive model for integrating AI into sports media education, addressing both practical skills and critical ethical understanding.

## 5. RESULT AND DISCUSSION

### 5.1 Descriptive Statistical Analysis

Descriptive analysis was employed to summarize the central tendency and dispersion of the dataset, providing a snapshot of student perceptions regarding AI integration (Wu et al., 2022). As illustrated in Figure 1, the analysis reveals that the Mean (M) values for items related to *"AI Necessity"* and *"Pedagogical Integration"* consistently exceed the midpoint of the scale. Critically, the mean values across the dataset are significantly higher than the standard deviation values. This statistical relationship indicates that the data are concentrated around the mean, reflecting a clustered consensus among respondents rather than a polarized debate.

	Descriptive Statistics								
	N Statistic	Range Statistic	Minimum Statistic	Maximum Statistic	Sum Statistic	Mean		Std. Deviation Statistic	Variance Statistic
_Students_are_generally_aware_of_AI_applications_in_sports_media.	51	4	1	5	177	3.47	.193	1.376	1.894
_University_curricula_adequately_cover_AI_in_sports_media_education.	51	4	1	5	160	3.14	.194	1.386	1.921
_Students_possess_sufficient_knowledge_about_AI_tools_relevant_to_sports_media.	51	4	1	5	166	3.25	.190	1.354	1.834
_AI_improves_the_quality_of_learning_in_sports_media_education.	51	4	1	5	163	3.20	.184	1.312	1.721
_AI-based_tools_make_sports_media_education_more_interactive.	51	4	1	5	155	3.04	.184	1.311	1.718
_AI_enhances_access_to_sports_media_resources_and_analysis.	51	4	1	5	155	3.04	.175	1.248	1.558
_AI-based_tools_strengthen_practical_skills_in_sports_journalism_and_broadcasting.	51	4	1	5	150	2.94	.178	1.271	1.616
_AI_supports_research_and_data_analysis_in_sports_media_education.	51	4	1	5	171	3.35	.194	1.383	1.913
_AI_prepares_students_for_careers_in_digital_and_sports_media_industries.	51	4	1	5	150	2.94	.171	1.223	1.496
_AI_creates_new_opportunities_for_students_in_Palestinian_sports_media_education.	51	4	1	5	160	3.14	.182	1.296	1.681
_AI_helps_bridge_the_gap_between_theory_and_practice_in_sports_media_studies.	51	4	1	5	166	3.25	.185	1.324	1.754
_AI_integration_in_sports_media_raises_ethical_and_privacy_concerns.	51	4	1	5	163	3.20	.175	1.249	1.561
_Students_show_readiness_to_adopt_AI_in_sports_media_education.	51	4	1	5	156	3.06	.176	1.256	1.576
_Universities_should_invest_more_in_AI_technologies_for_sports_media_education.	51	4	1	5	154	3.02	.149	1.068	1.140
_AI_will_play_a_transformative_role_in_the_future_of_sports_media_education_in_Palestine.	51	4	1	5	160	3.14	.186	1.327	1.761
Valid N (listwise)	51								

**Figure 1.** Descriptive statistics of key variables illustrating the high mean values relative to standard deviation.

(Source: SPSS Output)

Critically, the mean values across the dataset are significantly higher than the standard deviation values. This statistical relationship indicates that the data are concentrated around the mean, reflecting a clustered consensus among respondents rather than a polarized debate. The statistical data signifies more than just approval; it demonstrates a homogeneity of perspective across the student body. The fact that the standard deviation is low indicates that the "digital divide" in Palestine is likely infrastructural rather than attitudinal. Students, regardless of their

academic year or background, share a unified cognitive readiness for the AIMES framework. This challenges the common academic concern of "technophobia" or resistance to change, suggesting instead that the student population is already culturally attuned to the inevitability of algorithmic media production. The results imply a shift in the perceived ontology of Artificial Intelligence. Students no longer view AI as a futuristic luxury or a theoretical concept, but as a pragmatic necessity for operational efficacy. By rating "productivity" highly, respondents are acknowledging that in the high-speed world of sports media (real-time analytics, automated match reporting), human effort alone is no longer sufficient. This confirms that students recognize the instrumental value of AI in elevating the quality of their output from amateur to professional standards.

Overall, these descriptive findings provide a robust empirical mandate for the implementation of the AIMES framework. The strong collective sentiment serves as a "bottom-up" validation, proving that curriculum reform is not merely an administrative imposition but a response to urgent student demand. The data confirms that the "Pedagogical Integration" (A) and "Empowerment" (E) pillars of the framework are not just theoretically sound but reflect the actual desires of the primary stakeholders—the students themselves. The statistical data signifies more than just approval; it demonstrates a **homogeneity of perspective** across the student body. The fact that the standard deviation is low indicates that the "digital divide" in Palestine is likely infrastructural rather than attitudinal. Students, regardless of their academic year or background, share a unified **cognitive readiness** for the AIMES framework. This challenges the common academic concern of "technophobia" or resistance to change, suggesting instead that the student population is already culturally attuned to the inevitability of algorithmic media production.

## 5.2 Correlation Analysis

Correlation analysis was conducted to examine the direction and strength of relationships among the key variables of the study. As presented in **Figure 2**, the data reveals a complex landscape of interactions between student capabilities and AI integration. analysis identifies strong positive correlations between "Digital Literacy" and "Perceived Professional Readiness." This indicates a proportional relationship: as students' engagement with AI-related educational practices increases, their sense of academic productivity and industry preparedness significantly improves. This suggests a symbiotic relationship between technology and pedagogy. The incorporation of AI within journalism and sports media studies acts as a catalyst, directly enhancing learners' skill development. It validates the "*Industry Alignment*" (I) pillar of the AIMES framework, confirming that access to advanced tools correlates directly with a student's confidence in entering the labour market.

Conversely, distinct negative correlations were observed in variables related to "*Infrastructural Access*" and "*Cost*." These negative values do not imply a rejection of AI but rather highlight structural friction. They signal that financial constraints and lack of stable internet access are inversely related to successful adoption meaning the higher the barrier, the lower the practical utilization, regardless of student interest. This finding empirically locates the "*vulnerable areas*" of the venture, reinforcing the necessity of the "Social Adaptation" (S) component of the framework. It suggests that without targeted infrastructure support and faculty upskilling, the pedagogical benefits of AI will remain unevenly distributed. In sum, the correlation analysis demonstrates a dual reality: while the *potential* for AI to transform sports media education is high (Positive Correlation), it is currently checked by significant *logistic constraints* (Negative Correlation). This validates the need for a holistic framework like AIMES that addresses both the educational potential and the environmental limitations.

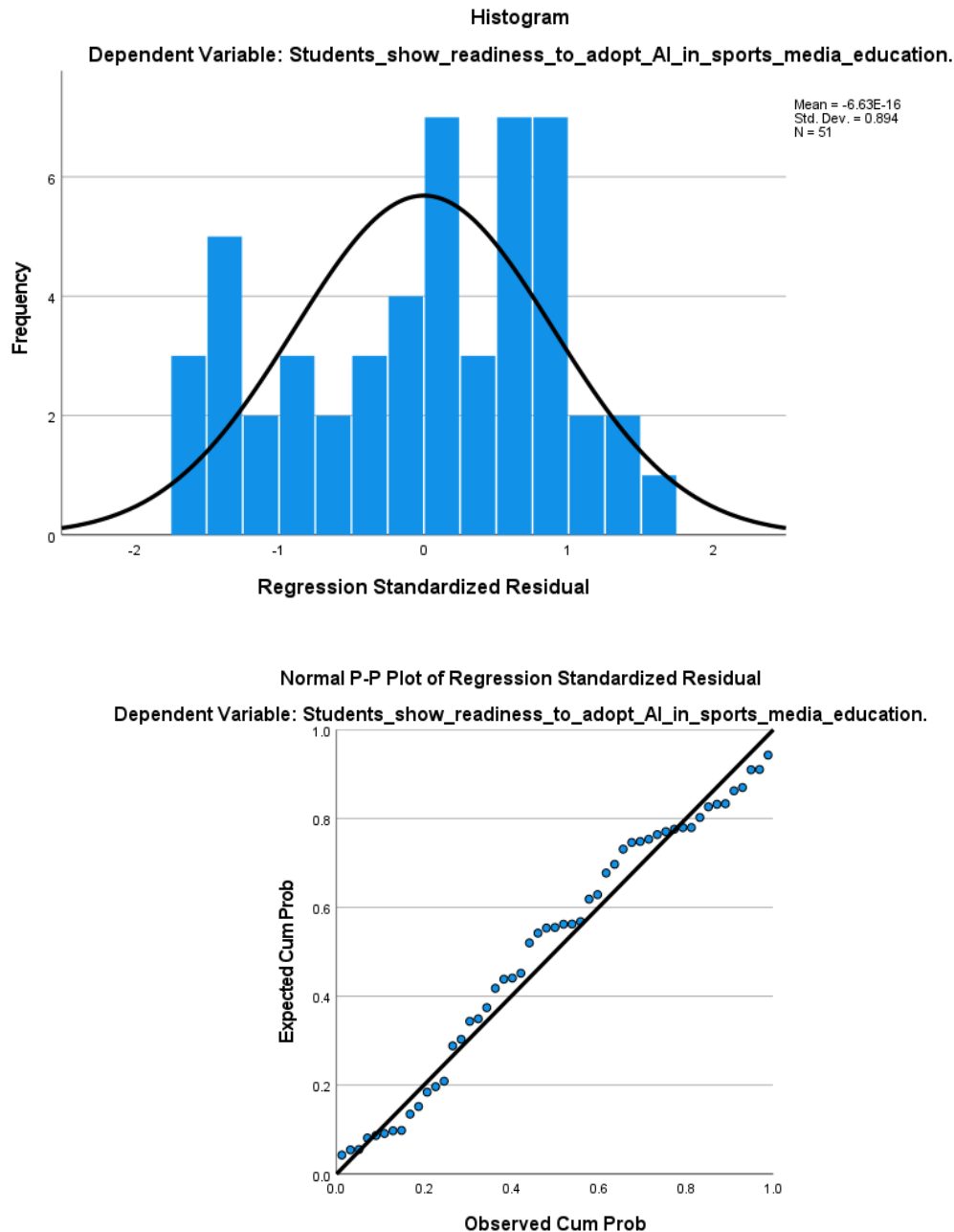
Correlations														
		_Students_are_generally_aware_of_AI_applications_in_sports_media	_University_curricula_adequately_cover_AI_in_sports_media_education	_Students_possess_sufficient_knowledge_about_AI_tools_relevant_to_sports_media_education	_AI_improves_the_quality_of_learning_in_sports_media_education	_AI-based_tools_make_sports_media_education_more_interactive	_AI_enhances_access_to_sports_media_resources_and_analysis	_AI-based_tools_strengthen_practical_skills_in_sports_journalism_and_broadcasting	_AI_supports_research_and_data_analysis_in_sports_media_education	_AI_prepares_students_for_careers_in_digital_and_sports_media_industries	_AI_creates_new_opportunities_for_students_in_Palestinian_sports_media_education	_AI_helps_bridge_the_gap_between_theory_and_practice_in_sports_media_studies	_AI_integration_in_sports_media_raises_ethical_and_privacy_concerns	_Students_show_readiness_to_adopt_AI_in_sports_media_education
_Students_are_generally_aware_of_AI_applications_in_sports_media	Pearson Correlation	1	.123	.074	.258	-.132	.071	.085	-.057	.017	-.071	.043	.108	-.051
	Sig. (2-tailed)		.391	.606	.068	.354	.623	.554	.689	.907	.623	.767	.450	.722
	N	51	51	51	51	51	51	51	51	51	51	51	51	51
_University_curricula_adequately_cover_AI_in_sports_media_education	Pearson Correlation	.123	1	.151	.106	-.179	.216	.061	.079	-.219	.000	.188	-.004	.191
	Sig. (2-tailed)	.391		.289	.459	.208	.127	.669	.584	.122	.998	.187	.976	.180
	N	51	51	51	51	51	51	51	51	51	51	51	51	51
_Students_possess_sufficient_knowledge_about_AI_tools_relevant_to_sports_media_education	Pearson Correlation	.074	.151	1	.005	-.107	-.195	-.014	.079	-.160	-.043	.086	-.172	.085
	Sig. (2-tailed)	.606	.289		.972	.454	.170	.920	.581	.263	.764	.550	.227	.553
	N	51	51	51	51	51	51	51	51	51	51	51	51	51
_AI_improves_the_quality_of_learning_in_sports_media_education	Pearson Correlation	.258	.106	.005	1	-.109	-.005	-.137	.148	.032	-.040	.351 <sup>*</sup>	-.097	-.056
	Sig. (2-tailed)	.068	.459	.972		.445	.973	.338	.298	.822	.782	.012	.498	.631
	N	51	51	51	51	51	51	51	51	51	51	51	51	51
_AI-based_tools_make_sports_media_education_more_interactive	Pearson Correlation	-.132	-.179	-.107	-.109	1	-.087	-.347 <sup>*</sup>	-.074	-.111	.173	-.075	-.041	-.196
	Sig. (2-tailed)	.354	.208	.454	.445		.546	.013	.608	.439	.224	.601	.773	.168
	N	51	51	51	51	51	51	51	51	51	51	51	51	51
_AI_enhances_access_to_sports_media_resources_and_analysis	Pearson Correlation	.071	.216	-.195	-.005	-.087	1	-.011	.200	-.143	.009	-.067	.277 <sup>*</sup>	.215
	Sig. (2-tailed)	.623	.127	.170	.973	.546		.938	.159	.318	.950	.642	.049	.129
	N	51	51	51	51	51	51	51	51	51	51	51	51	51
_AI-based_tools_strengthen_practical_skills_in_sports_journalism_and_broadcasting	Pearson Correlation	.085	.061	-.014	-.137	-.347 <sup>*</sup>	-.011	1	.001	.178	-.238	-.217	-.056	.027
	Sig. (2-tailed)	.554	.669	.920	.338	.013	.938		.996	.212	.093	.127	.699	.849
	N	51	51	51	51	51	51	51	51	51	51	51	51	51
_AI_supports_research_and_data_analysis_in_sports_media_education	Pearson Correlation	-.057	.079	.079	.148	-.074	.200	.001	1	.048	-.228	.321 <sup>*</sup>	-.076	.126
	Sig. (2-tailed)	.689	.584	.581	.298	.606	.159	.996		.738	.107	.022	.588	.378
	N	51	51	51	51	51	51	51	51	51	51	51	51	51
_AI_prepares_students_for_careers_in_digital_and_sports_media_industries	Pearson Correlation	.017	-.219	-.160	.032	-.111	-.143	.178	.048	1	-.209	-.287 <sup>*</sup>	-.097	-.154
	Sig. (2-tailed)	.907	.122	.263	.822	.439	.318	.212	.738		.141	.041	.498	.281
	N	51	51	51	51	51	51	51	51	51	51	51	51	51
_AI_creates_new_opportunities_for_students_in_Palestinian_sports_media_education	Pearson Correlation	-.071	.000	-.043	-.040	.173	.009	-.238	-.228	-.209	1	.224	.032	-.140
	Sig. (2-tailed)	.623	.998	.764	.782	.224	.950	.093	.107	.141		.114	.821	.326
	N	51	51	51	51	51	51	51	51	51	51	51	51	51
_AI_helps_bridge_the_gap_between_theory_and_practice_in_sports_media_studies	Pearson Correlation	.043	.188	.086	.351 <sup>*</sup>	-.075	-.067	-.217	.321 <sup>*</sup>	-.287 <sup>*</sup>	.224	1	-.031	.039
	Sig. (2-tailed)	.767	.187	.550	.012	.601	.642	.127	.022	.041	.114		.830	.786
	N	51	51	51	51	51	51	51	51	51	51	51	51	51
_AI_integration_in_sports_media_raises_ethical_and_privacy_concerns	Pearson Correlation	.108	-.004	-.172	-.097	-.041	.277 <sup>*</sup>	-.056	-.076	-.097	.032	-.031	1	.069
	Sig. (2-tailed)	.450	.976	.227	.498	.773	.049	.699	.598	.498	.821	.830		.630
	N	51	51	51	51	51	51	51	51	51	51	51	51	51
_Students_show_readiness_to_adopt_AI_in_sports_media_education	Pearson Correlation	-.051	.191	.085	-.056	-.196	.215	.027	.126	-.154	-.140	.039	.069	1
	Sig. (2-tailed)	.722	.180	.553	.698	.168	.129	.849	.378	.281	.326	.786	.630	
	N	51	51	51	51	51	51	51	51	51	51	51	51	51
_Universities_should_invest_more_in_AI_technologies_for_sports_media_education	Pearson Correlation	.075	-.056	-.142	-.031	.085	.104	-.073	-.140	.185	.143	-.329 <sup>*</sup>	.057	-.120
	Sig. (2-tailed)	.600	.697	.321	.827	.552	.466	.612	.326	.194	.318	.018	.691	
	N	51	51	51	51	51	51	51	51	51	51	51	51	51
_AI_will_play_a_transformative_role_in_the_future_of_sports_media_education_in_Palestine	Pearson Correlation	-.124	-.271	.192	.099	.146	-.341 <sup>*</sup>	-.102	.137	.091	-.104	-.020	-.198	-.077
	Sig. (2-tailed)	.387	.054	.178	.489	.306	.014	.477	.339	.524	.467	.888	.165	
	N	51	51	51	51	51	51	51	51	51	51	51	51	51
* Correlation is significant at the 0.05 level (2-tailed).														

Figure 2. Correlation analysis of AI integration and educational performance.

(Source: SPSS output)

4.2 Regression Analysis

Regression analysis was utilized to examine the interrelationship between a dependent variable (Y) specifically, the *Willingness to Adopt AI* and independent demographic variables (X), such as Year of Study. This statistical method allows researchers to assess predictive power and model fit (Dey et al., 2025). As shown in Figure 3, the regression output reports a p-value of 0.790, which is above the conventional significance level of 0.05.



**Figure 3.** Regression analysis of predictive relationships.

(Source: SPSS output)

The p-value of 0.790 indicates a failure to reject the null hypothesis, meaning that the demographic predictor variables in this model do not significantly account for variation in student attitudes. While a non-significant result is often viewed as a limitation, in this specific educational context, it offers a profound insight. It suggests that the demand for AI training is not contingent on a student's background, gender, or year of study. This finding argues that the "need for AI" is universal across the sample. Whether a student is a freshman or a senior, their perception of AI's importance remains equally high. This challenges the assumption that AI should only be taught to advanced students. Instead, it supports the implementation of the AIMES framework as a core curriculum requirement for *all* students. It confirms that the interest in technological literacy is widespread rather than confined to a specific subgroup. he proposed AIMES framework offers significant implications across theory, research, practice, and policy

domains. Theoretically, it addresses a critical gap by conceptualizing how AI can be integrated into specialized fields of media education within underrepresented contexts. It enriches existing models by emphasizing contextual adaptation and ethical literacy. Practically, AIMES offers educational institutions a strategic roadmap to redesign curricula, foster industry partnerships, and build capacity in AI tools to enhance graduates' readiness. For policymakers, the framework underscores the necessity of investing in digital infrastructure and equitable access to AI technologies, particularly in low-resource regions.

## **6. CONCLUSION AND RECOMMENDATIONS**

### **6.1 Summary of the Study**

This study set out to investigate the "promise and precarity" of integrating Artificial Intelligence into sports media education within the Palestinian higher education sector. Through the development of the AIMES Framework (AI-Pedagogy, Industry Alignment, Media Literacy, Empowerment, and Social Adaptation), this study provides a theoretical roadmap for navigating digital transformation in resource-constrained environments. The empirical findings from the survey of 51 media students confirm that the demand for AI integration is not merely a future aspiration but an urgent current necessity. The descriptive analysis revealed a clear consensus: students are cognitively ready to embrace AI tools to enhance their professional productivity. Furthermore, the regression analysis provided a critical insight into the universality of this demand—demonstrating that interest in AI cuts across all academic years and demographics. However, this enthusiasm is tempered by structural realities. The negative correlations regarding cost and access highlight that without significant infrastructural investment, the "digital divide" remains the primary obstacle to curriculum reform.

### **6.2 Strategic Recommendations**

Based on the validated AIMES framework, this study provides several actionable recommendations for key stakeholders. For university administrators, both pedagogy and infrastructure should be reconsidered. Institutions are encouraged to move away from costly, hardware-dependent laboratories and instead prioritize cloud-based, open-source AI tools, such as automated transcription software and free data visualization platforms. This approach reduces barriers to entry, aligning with the framework's "Social Adaptation" pillar, while still equipping students with skills relevant to the industry. For faculty members, curriculum design should integrate "Critical AI Literacy" as a core module. Beyond teaching students how to operate AI tools, this component emphasizes critical engagement—guiding students to identify algorithmic bias in sports analytics and verify the authenticity of AI-generated content. This aligns directly with the "Media Literacy" pillar, fostering ethical awareness and critical thinking alongside technical proficiency. Finally, for policymakers, particularly within the Ministry of Higher Education, structured partnerships between universities and local sports broadcasters are recommended. Internship programs or "sandwich courses," where students actively use AI tools in real newsroom settings, can bridge the gap between theoretical knowledge and practical application. This strategy reflects the "Industry Alignment" pillar of AIMES and ensures that graduates are prepared to meet the evolving demands of the sports media sector.

### **6.3 Limitations and Future Research Directions**

While this study offers a novel contribution to the field, it is not without limitations. First, the sample size (N=51) serves as a pilot validation; future studies should aim for larger, multi-university cohorts to enhance generalizability. Second, the cross-sectional nature of the survey captures only a snapshot of attitudes. Future research should employ longitudinal designs to track student employability outcomes before and after the implementation of the AIMES

curriculum. Finally, comparative studies with other nations in the Global South would help distinguish between challenges unique to the Palestinian context and those shared by other developing regions. In sum, the integration of AI in sports media is inevitable. The choice facing Palestinian educators is not whether to adopt these technologies, but how to do so equitably. By adopting the AIMES framework, institutions can ensure that the next generation of sports journalists are not replaced by algorithms but are empowered to lead the newsrooms of the future.

## REFERENCES

- Abu-Amsha, K., & Armstrong, C. (2020). Education in emergencies in Palestine: Challenges and opportunities. *Education and Conflict Review*, 3, 1–9.
- Alam, F., & Tiwari, P. (2021). Artificial intelligence in higher education: A bibliometric analysis and research agenda. *Education and Information Technologies*, 26(6), 7321–7348. <https://doi.org/10.1007/s10639-021-10627-0>
- Amara, M. (2021). *Sport, politics and society in the Arab world*. Palgrave Macmillan.
- Broussard, M. (2019). *Artificial unintelligence: How computers misunderstand the world*. MIT Press.
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.
- Dey, D., Haque, M. S., Islam, M. M., Aishi, U. I., Shammy, S. S., Mayen, M. S. A., Noor, S. T. A., & Uddin, M. J. (2025). The proper application of logistic regression model in complex survey data: A systematic review. *BMC Medical Research Methodology*, 25(1), 15.
- Diakopoulos, N. (2019). *Automating the news: How algorithms are rewriting the media*. Harvard University Press.
- Drolet, M. J., Rose-Derouin, E., Leblanc, J. C., Ruest, M., & Williams-Jones, B. (2023). Ethical issues in research: Perceptions of researchers, research ethics board members and research ethics experts. *Journal of Academic Ethics*, 21(2), 269–292.
- Hilal, R., & Barakat, S. (2020). Higher education and the challenges of the digital divide in Palestine. *Comparative Education Review*, 64(4), 534–553.
- Holmes, W., Bialik, M., & Fadel, C. (2021). *Artificial intelligence in education: Promises and implications for teaching and learning*. Center for Curriculum Redesign.
- Luckin, R. (2018). *Machine learning and human intelligence: The future of education for the 21st century*. UCL Institute of Education Press.
- Maretha, C. (2023). Positivism in philosophical studies. *Journal of Innovation in Teaching and Instructional Media*, 3(3), 124–138.

- Mazhar, S. A., Anjum, R., Anwar, A. I., & Khan, A. A. (2021). Methods of data collection: A fundamental tool of research. *Journal of Integrated Community Health, 10*(1), 6–10.
- Mirza, H., Mirza, C., & Bellalem, F. (2023). Ethical considerations in qualitative research: Summary guidelines for novice social science researchers. *Journal of Social Studies and Research (Majallat al-Dirasat wa-al-Buhuth al-Ijtima'iyah), 11*(1), 441–449.
- Olawale, S. R., Chinagozi, O. G., & Joe, O. N. (2023). Exploratory research design in management science: A review of literature on conduct and application. *International Journal of Research and Innovation in Social Science, 7*(4), 1384–1395.
- Pavlik, J. V. (2023). Collaborating with ChatGPT: Considering the implications of generative artificial intelligence for journalism and media education. *Journalism & Mass Communication Educator, 78*(1), 84–93.
- Pedersen, P. M. (Ed.). (2017). *Routledge handbook of sport communication*. Routledge.
- Price, J., Wolf, R., & Arias, J. (2020). AI in sports broadcasting: Transforming the viewing experience. *International Journal of Sports Media, 15*(2), 101–115.
- Proudfoot, K. (2023). Inductive/deductive hybrid thematic analysis in mixed methods research. *Journal of Mixed Methods Research, 17*(3), 308–326.
- Selwyn, N. (2019). *Should robots replace teachers? AI and the future of education*. Polity Press.
- UNESCO. (2021). AI and education: Guidance for policy-makers. United Nations Educational, Scientific and Cultural Organization.
- Wu, M. J., Zhao, K., & Fils-Aime, F. (2022). Response rates of online surveys in published research: A meta-analysis. *Computers in Human Behavior Reports, 7*, 100206.
- Zawacki-Richter, O., Marín, V. I., Bond, M., & Gouverneur, F. (2019). Systematic review of research on artificial intelligence applications in higher education – Where are the educators? *International Journal of Educational Technology in Higher Education, 16*(1), 39. <https://doi.org/10.1186/s41239-019-0171-0>
- Zhang, H., Wang, C., Li, X., & Tohti, G. (2024). Exploration on teaching reform of SPSS data analysis and application course using project-based learning. *Journal of Higher Education Teaching, 4*(1), 12–18.