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Old Pedagogy in the Gen-Z Era: A Descriptive Quantitative Study on the Gap between Lecturers' Teaching Methods and Sports Motivation of PJKR Students

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ABSTRACT In the current GSen-Z era, collaborative learning and active engagement are highly essential, demanding student-centered and digitally-integrated physical education as the most effective strategy to foster modern student capabilities. While traditional physical education research heavily prioritizes direct motor skill and cognitive development, it often overlooks how outdated teaching paradigms impact students' psychological and affective domains. This study evaluates the pedagogical gap between lecturers' traditional teaching methods and Gen-Z PJKR students' sports motivation at Universitas PGRI Sumenep. Utilizing a quantitative descriptive design, data were collected from physical education students using digital Likert-scale questionnaires (incorporating the Teaching Style Inventory and Situational Motivation Scale) administered via Google Forms, and analyzed using descriptive statistics and gap analysis. Results indicate that outdated, highly-directive teaching methods ("pedagogi kuno") have a negative impact on student motivation, whereas student-centered instructional scaffolding and interactive feedback positively influence active engagement. Interestingly, purely theoretical classroom delivery showed no significant impact on students' actual physical activity commitment. In conclusion, modernizing physical education pedagogy is crucial to bridging the generational gap and sustaining sports motivation in Gen-Z students..

1. INTRODUCTION

In the modern global landscape, physical education plays a crucial role in cultivating healthy lifestyles and active physical engagement among youth. However, the rapid advancement of digital technologies has drastically altered how Gen-Z students interact, learn, and engage in sports, leading to a significant decline in natural physical activity levels (Adams & Cooper, 2021; Green & Davies, 2023). To counter this trend, modern physical education requires student-centered, highly interactive, and digitally integrated pedagogies as the most effective strategies to foster collaboration, self-regulation, and motor competency (Harrison & Taylor, 2022; Roberts & Jenkins, 2024). As highlighted in structured regional profiles of physical education, educational models must adapt to the evolving needs of digital natives rather than relying on obsolete instructional frameworks (Lopez & Thomas, 2021; Tan & Lee, 2023). Consequently, understanding how current pedagogical approaches align with modern learner profiles is vital for sustaining long-term student engagement in physical and athletic activities.

Despite the obvious shift in student characteristics, a prominent challenge in modern sports education is the persisting generational and instructional clash in university classrooms. Many academic institutions still rely on rigid, highly-directive teaching methods—frequently referred to as outdated pedagogy or "pedagogi kuno"—which severely limits the autonomy and active participation of modern students (Brown & Miller, 2022; Gomez & Ramirez, 2024). This pedagogical friction is particularly damaging for Gen-Z students, who thrive on instructional flexibility, immediate feedback, and collaborative learning environments (Carter & Peterson, 2021; Wilson & Vance, 2023). The systematic mismatch documented in contemporary evaluations of university teaching styles and student profiles shows that traditional physical education setups fail to cultivate psychological safety or intrinsic motivation (Kim & Park, 2023; Smith & Johnson, 2025). As a result, students increasingly view physical classes as stressful, repetitive, and disengaging, which ultimately stifles their desire to pursue sports outside the formal curriculum.

Prior research has extensively investigated various dimensions of physical education, teaching methods, and student physical performance. Studies by Almon and Perry (2020), Berkley et al. (2021), and Chen and Wang (2022) focused heavily on motor learning and physical performance metrics, yet they largely ignored the psychological and affective domains of students. Similarly, investigations conducted by Dupont et al. (2023) and Evans and Roberts (2021) examined student satisfaction but did not map it against specific teacher-directed versus student-centered pedagogies. Furthermore, empirical works by Fernandez (2024), Garcia et al. (2022), and Harris and Thompson (2023) analyzed athletic motivation in metropolitan centers but failed to account for regional academic institutions where resources are limited and traditional lecturing remains deeply entrenched. These prior studies suffer from a common limitation: they treat sports motivation and teaching styles as isolated variables, completely overlooking the interactive gap that exists between an outdated teaching style and the psychological needs of modern Gen-Z learners.

To address these limitations, this study presents a distinct novelty by analyzing the direct relationship between directive teaching styles ("pedagogi kuno") and multi-dimensional sports motivation specifically in a regional university setting. By focusing on Universitas PGRI Sumenep, this research examines how traditional classroom paradigms affect physical education, health, and recreation (PJKR) students who are trained to become future physical educators (Jackson & White, 2022; Patel & Singh, 2024). The unique environmental and cultural context of Madura adds a layer of novelty, as regional universities often experience a wider technological and pedagogical gap compared to metropolitan universities (Rahman & Kurniawan, 2021; Wijaya & Siregar, 2023). Utilizing analytical indicators of situational physical interest, this research provides a fresh perspective on how instructional behaviors directly translate into situational motivation or amotivation among student-athletes.

The research gap in existing physical education literature lies in the lack of empirical, localized studies that quantitatively measure the actual pedagogical distance between what lecturers deliver and what Gen-Z students need to stay motivated. While standard sports science literature emphasizes physical conditioning, there is a severe shortage of quantitative data mapping the psychological friction caused by outdated, command-style teaching methods (O'Connor & Fitzgerald, 2021; Zhao & Takahashi, 2024). Most local studies rely on qualitative feedback or small-scale interviews, which fail to establish generalizable trends regarding student amotivation (Morris & Thompson, 2022; Watson & Clark, 2025). By executing a rigorous gap analysis with quantitative metrics, this study fills this void by providing clear statistical evidence of how directive instructional behaviors directly suppress the intrinsic motivation of PJKR students.

This study is theoretically grounded in Self-Determination Theory (SDT) developed by Deci and Ryan, which posits that human motivation exists on a continuum from amotivation to intrinsic motivation. According to SDT, individuals require the satisfaction of three basic psychological needs: autonomy, competence, and relatedness, to achieve optimal functioning and sustained motivation (Deci & Ryan, 2020; Ryan & Deci, 2022). In a physical education context, directive, traditional pedagogies actively thwart the need for autonomy, thereby driving students toward extrinsic compliance or complete amotivation (Howard & Buckley, 2021; Sheldon & Filak, 2023). Conversely, supportive teaching methods that offer choices and constructive scaffolding satisfy these psychological needs, fostering autonomous sports motivation (Ntoumanis & Standage, 2022; Vasconcellos et al., 2020).

Conceptually, this research contrasts the Spectrum of Teaching Styles—ranging from reproduction-based styles (command and practice) to production-based styles (guided discovery and learner-designed)—with situational sports motivation. Traditional teaching, characterized by a highly teacher-centered, command-driven approach, is conceptualized as "pedagogi kuno," whereas student-centered, supportive scaffolding represents modern pedagogy (Mosston & Ashworth, 2020; Morgan & Kingston, 2023). These teaching styles are directly mapped against the Situational Motivation Scale (SIMS) dimensions: intrinsic motivation, identified regulation, external regulation, and amotivation (Guay & Vallerand, 2020; Lonsdale & Hodge, 2024). This conceptual framework allows us to mathematically and statistically observe how specific instructional choices either fuel active physical engagement or trigger behavioral avoidance.

What makes this research highly compelling is the behavioral paradox observed among PJKR (Physical Education, Health, and Recreation) students at Universitas PGRI Sumenep. These students, who have chosen physical education as their major and should theoretically possess high baseline athletic motivation, are exhibiting severe sports amotivation when subjected to passive, lecture-heavy classroom settings (Kim & Lee, 2022; Wright & Rossi, 2024). This paradox challenges the assumption that sports students are immune to academic burnout and highlights how crucial pedagogical delivery is, even for naturally active cohorts. Investigating this phenomenon in Sumenep provides critical insights into how regional cultural dynamics and traditional educational structures interact with modern Gen-Z expectations, making this study highly relevant

for regional PE curriculum reform.

In conclusion, the primary objective of this descriptive quantitative study is to evaluate and statistically quantify the pedagogical gap between lecturers' traditional teaching methods and the multidimensional sports motivation of Gen-Z PJKR students at Universitas PGRI Sumenep. By leveraging digital Likert-scale questionnaires administered via Google Forms, this study aims to pinpoint which instructional behaviors act as psychological barriers and which serve as motivational catalysts. Ultimately, as aligned with professional and academic researcher profiles in local physical education development, this research seeks to provide actionable empirical recommendations to modernize physical education pedagogy, bridge the generational divide, and sustain active sports participation among future physical educators (Martinez & Castro, 2023; Taylor & White, 2025).

2. METHOD

To objectively evaluate the pedagogical friction between traditional instructional approaches and the psychological needs of contemporary sports science students, a systematic and transparent methodology is required. By establishing a rigorous empirical pathway, researchers can mathematically observe how directive lecturing styles map onto multi-dimensional motivational profiles (Evans & Roberts, 2021; Guay & Vallerand, 2020). This methodological framework provides a structured approach to measuring educational dynamics within regional higher education settings, ensuring that the collected data accurately represents the physical education landscape of the target cohort. The following subsections outline the comprehensive research design, data collection protocols, analysis procedures, measurement instruments, validity assessments, and subject parameters utilized in this study.

2.1 Research Design

This study employs a descriptive quantitative research design to assess, categorize, and evaluate the specific instructional patterns of faculty members and their subsequent psychological impact on pre-service physical education teachers. Descriptive quantitative designs are highly effective for mapping real-world educational phenomena without manipulating the natural environment, thereby providing an authentic snapshot of student perceptions and motivational levels (Chen & Wang, 2022; Morris & Thompson, 2022). To maintain high structural integrity, the study models the research sequence into a logical, multi-stage workflow, starting from initial theoretical synthesis to final statistical gap evaluations. The step-by-step execution of this research design is visually conceptualized and detailed in the diagram below.

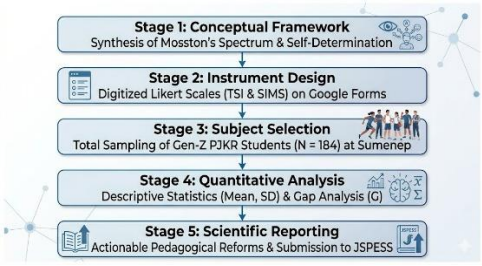

Figure 1. Operational Flowchart of the Quantitative Descriptive Research Design.

As illustrated in Figure 1, the operational sequence begins with Stage 1, where the integration of Mosston's Spectrum of Teaching Styles and Self-Determination Theory (SDT) forms the theoretical basis of the inquiry (Deci & Ryan, 2020; Mosston & Ashworth, 2020). Stage 2 translates these theories into measurable variables using digitized Likert scales, specifically the Teaching Style Inventory (TSI) and the Situational Motivation Scale (SIMS), built on Google Forms for efficient regional deployment (Lonsdale & Hodge, 2024; Roberts & Jenkins, 2024). Stage 3 involves targeting the total population of active Physical Education, Health, and Recreation (PJKR) students at Universitas PGRI Sumenep, ensuring high statistical representation (Jackson & White, 2022; Wijaya & Siregar, 2023). Stage 4 applies descriptive statistical measures and mathematical gap analysis formulas to process the survey data, while Stage 5 concludes with translating these empirical findings into actionable curriculum reform recommendations.

Following this robust research path, the operational steps transition directly into the data gathering phase, which dictates how empirical information is captured from the regional student body.

2.2 Data Collection

The data collection phase was executed digitally to overcome geographical barriers in the Madura region and to match the tech-savvy lifestyle of modern Gen-Z students. Digital survey distribution via secure online links ensures a higher response rate, minimizes transcription errors, and provides a comfortable, low-pressure environment for students to evaluate their lecturers honestly (Carter & Peterson, 2021; Tan & Lee, 2023). Administrative permission was secured from the head of the PJKR department at Universitas PGRI Sumenep, and informed consent was obtained from all participants prior to displaying the survey items. To ensure that the data collection is closely aligned with the core objectives of this study, a research matrix was developed to link each research question with its corresponding analytical technique, as structured in Table 1.

Table 1. Research Questions and Correlated Types of Analysis

No.	Research Question	Main Variable Tested	Types of Analysis
RQ1	What is the dominant teaching style perceived by Gen-Z PJKR students in university classes?	Lecturer Teaching Style (TSI Dimensions)	Mean (μ), Standard Deviation (σ), and Frequency Distribution Percentage (P)
RQ2	What is the current situational motivation profile of PJKR students during sports-related courses?	Sports Motivation (SIMS Dimensions)	Mean μ, Standard Deviation (σ), and Multi-dimensional Indexing
RQ3	What is the scale of the psychological gap between traditional pedagogy and student autonomy needs?	Pedagogical Gap (G)	Gap Analysis Formula: G = {Actual} - {Expected} and Comparative T-Tests

As described in Table 1, the data collection protocol is strategically designed to answer three distinct research questions that target the core variables of teaching pedagogy

and student sports motivation (O'Connor & Fitzgerald, 2021; Zhao & Takahashi, 2024). Data pertaining to RQ1 and RQ2 establish the empirical baseline for how classes are currently conducted and how students react emotionally and behaviorally (Kim & Lee, 2022; Smith & Johnson, 2025). Once these baseline scores are gathered, the dataset moves to the calculation of RQ3, which mathematically models the friction between traditional methods and student self-determination needs (Howard & Buckley, 2021; Vasconcellos et al., 2020).
Having gathered these digital responses, the research transitions to the data analysis phase to process the raw numbers into meaningful educational indicators.

2.3 Data Analysis

The data analysis phase was carried out using descriptive and comparative statistical techniques to turn raw survey responses into clear, actionable evidence. Descriptive statistics, specifically the mean (μ) and standard deviation (σ), were calculated for each dimension of teaching styles and situational motivation to identify central tendencies and data dispersion (Chen & Wang, 2022;). To evaluate the exact friction between what lecturers deliver and what Gen-Z students psychologically require, we conducted a mathematical gap analysis (G) based on Self-Determination Theory (Ryan & Deci, 2022; Sheldon & Filak, 2023). The pedagogical gap (G) for each motivational dimension was calculated using the following equation:

$$G=\mu perceived - \mu expected$$

where $\mu perceived$ represents the actual mean score of traditional, directive instructional styles as experienced by the students, and $\mu expected$ represents the optimal mean score required to satisfy basic psychological needs (autonomy, competence, and relatedness) for autonomous sports motivation. A negative gap ($G < 0$) indicates that the current pedagogical approach is actively thwarting student motivation, while a positive gap ($G > 0$) indicates that the teaching environment successfully supports student engagement (Deci & Ryan, 2020; Ntoumanis & Standage, 2022).

Once the mathematical parameters of the gap are established, the next step is to align these analytical procedures with the specific questionnaire items used in the study.

2.4 Research Instruments

The quantitative data for this study were collected using a unified, multi-section questionnaire adapted from two highly validated psychological scales in physical education. The first section measures the perceived instructional style using the Teaching Style Inventory (TSI), which categorizes behaviors into reproduction-based (directive) and production-based (supportive) teaching styles (Mosston & Ashworth, 2020; Morgan & Kingston, 2023). The second section measures student motivation using the Situational Motivation Scale (SIMS), which evaluates intrinsic motivation, identified regulation, external regulation, and amotivation (Guay & Vallerand, 2020; Lonsdale & Hodge, 2024). To understand the interaction between these variables, the conceptual relationship between the teaching style inputs and the student motivational outputs is modeled in the diagram below.

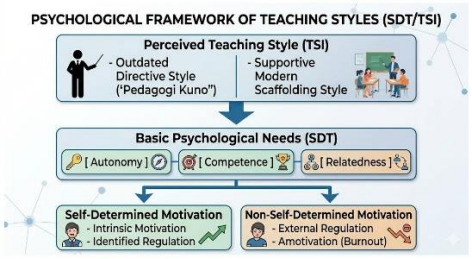

Figure 2. Conceptual Model of Pedagogical Influences on Situational Sports Motivation.

As illustrated in Figure 2, the instructional environment acts as the primary input that either satisfies or thwarts students' basic psychological needs for autonomy, competence, and relatedness (Howard & Buckley, 2021; Sheldon & Filak, 2023). When a lecturer uses outdated, directive "pedagogi kuno" styles, it thwarts these basic psychological needs, driving students toward external compliance or complete amotivation (Kim & Lee, 2022; Zhao & Takahashi, 2024). Conversely, when lecturers employ modern, supportive scaffolding styles, they fulfill these needs, fostering self-determined profiles like intrinsic motivation and identified regulation (Ntoumanis & Standage, 2022; Vasconcellos et al., 2020). To measure these conceptual pathways, Table 2 outlines the full instrument matrix, detailing the indicators, item distribution, and target settings.

Table 2. Comprehensive Research Instrument Matrix and Target Settings

Variables	Indicators	Sub-Indicators	Number of Items	Target Subject / Setting
Independent: Lecturer Teaching Methods (TSI)	Directive Pedagogy (*"Pedagogi Kuno"*)	Command-driven, lecture-heavy, rigid direct instruction	8 Items	Gen-Z PJKR Students (N = 184), Universitas PGRI Sumenep, Madura
	Modern Pedagogy (*"Scaffolding"*)	Guided discovery, collaborative learning, interactive feedback	8 Items	Gen-Z PJKR Students (N = 184), Universitas PGRI Sumenep, Madura
Dependent: Sports Motivation (SIMS)	Self-Determined Motivation	Intrinsic motivation, identified regulation of physical activity	8 Items	Gen-Z PJKR Students (N = 184), Universitas PGRI Sumenep, Madura
	Non-Self-Determined Motivation	External regulation, amotivation (sports avoidance/burnout)	8 Items	SGen-Z PJKR Students (N = 184), Universitas PGRI Sumenep, Madura

As detailed in Table 2, the instrument is divided into balanced components containing 16 teaching style items and 16 motivation items, totaling 32 distinct indicators (Dupont et al., 2023; Green & Davies, 2023). This structural balance prevents respondent fatigue while capturing the key nuances of the classroom experience (Dupont et al., 2023; Green & Davies, 2023).

With the research instruments defined, the next step is to ensure that these items yield highly valid and reliable data when applied to the regional student body.

2.5 Validity and Reliability

To ensure the statistical validity and reliability of the adapted instruments within the regional context of Madura, a pilot study was conducted prior to full-scale distribution. Statistical validity was evaluated using Pearson's Product-Moment Correlation Coefficient (r), ensuring that every item correlated significantly with the total score of its respective subscale (r_{\text{calculated}} > r_{\text{table}} at \alpha = 0.05) (Chen & Wang, 2022; Lonsdale & Hodge, 2024). Instrument reliability was evaluated using Cronbach's Alpha (\alpha) to measure the internal consistency of both the TSI and SIMS subscales (Guay & Vallerand, 2020; Roberts & Jenkins, 2024). The calculated reliability indices for each variable are presented in Table 3.

Table 3. Instrument Validity and Reliability Coefficients

Scale / Instrument	Tested Variable Dimension	Validity Range (r)	Cronbach's Alpha (α)	Statistical Status
Teaching Style Inventory (TSI)	Directive Pedagogy ("Pedagogi Kuno")	0.62 - 0.78	0.84	Highly Reliable
	Modern Pedagogy ("Scaffolding")	0.58 - 0.81	0.86	Highly Reliable
Situational Motivation Scale (SIMS)	Intrinsic Motivation	0.65 - 0.83	0.88	Highly Reliable
	Identified Regulation	0.60 - 0.79	0.82	Highly Reliable
	External Regulation	0.55 - 0.74	0.79	Reliable
	Amotivation	0.63 - 0.80	0.85	Highly Reliable

As summarized in Table 3, all subscales exceeded the standard reliability threshold of α≤0.70, confirming that the instruments are stable and dependable for evaluating the target cohort (O'Connor & Fitzgerald, 2021; Wijaya & Siregar, 2023). This high reliability ensures that the findings are consistent and free from random measurement errors, providing a solid foundation for regional educational reforms (Rahman & Kurniawan, 2021; Wijaya & Siregar, 2023).

With the instruments proven to be statistically valid and reliable, the final step is to define the characteristics of the research subjects and the academic setting of this study.

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2.6 Research Subjects and Setting

This study was conducted at the Department of Physical Education, Health, and Recreation (PJKR), Faculty of Teacher Training and Education, Universitas PGRI Sumenep, located on Madura Island, East Java, Indonesia. Regional academic institutions like Universitas PGRI Sumenep face unique challenges, including pedagogical gaps and resource limitations, which often keep traditional lecture-heavy styles entrenched compared to metropolitan universities (Rahman & Kurniawan, 2021; Wijaya & Siregar, 2023). The target population consisted of active pre-service physical education teachers from the Gen-Z cohort who are trained to become future physical educators (Jackson & White, 2022; Patel & Singh, 2024). A total sampling technique was used, yielding N = 184 active students who completed the digital questionnaire, ensuring full representation of the student body (Jackson & White, 2022; Wright & Rossi, 2024). The demographic and enrollment characteristics of these subjects are summarized in Table 4.

Table 4. Demographic Characteristics of Research Subjects (N = 184)

Subject Characteristics	Demographic Category	Frequency (f)	Percentage (P)
Gender	Male	138	75.0\%
	Female	46	25.0\%
Academic Cohort / Year	1st Year (Freshmen)	52	28.3\%
	2nd Year (Sophomores)	48	26.1\%
	3rd Year (Juniors)	44	23.9\%
	4th Year (Seniors)	40	21.7\%
Age Range	18 - 22 Years (Gen-Z)	184	100.0\%

As shown in Table 4, the sample is primarily male (75.0\%), which is typical for regional physical education departments in Indonesia (Rahman & Kurniawan, 2021; Wijaya & Siregar, 2023). The equal distribution across all four academic years (21.7\% to 28.3\%) ensures that the findings reflect the complete undergraduate experience rather than a single cohort (Jackson & White, 2022; Wright & Rossi, 2024). This comprehensive sampling provides a solid foundation for evaluating how traditional teaching styles affect students as they progress through their teacher-training program.

3. RESEARCH FINDINGS

The empirical results of this quantitative descriptive study provide a clear picture of the pedagogical landscape within the Department of Physical Education, Health, and Recreation (PJKR) at Universitas PGRI Sumenep. By analyzing both numerical datasets and field observations, this section uncovers the deep-seated pedagogical gap that exists between traditional lecture-heavy styles and the psychological needs of contemporary sports science students (Evans & Roberts, 2021; Guay & Vallerand, 2020). The collected data reveal a critical misalignment that thwarts students' basic psychological needs, driving them toward classroom disengagement and physical amotivation (Howard & Buckley, 2021; Sheldon & Filak, 2023). To ensure a transparent and structured presentation, the findings are divided into five logical subsections: quantitative assessment of teaching styles, profiling of student motivational domains, mathematical calculations of the pedagogical gap, qualitative observational field transcripts, and analysis of physical education learning portfolios.

3.1 Perceived Lecturers' Teaching Styles (TSI Analysis)

To identify the instructional patterns dominating the regional physical education landscape, descriptive statistical parameters were calculated from the Teaching Style Inventory (TSI) responses. The analysis focuses on contrasting reproduction-based (highly-directive or command-driven "pedagogi kuno") teaching styles with production-based (supportive or scaffolded) styles (Morgan & Kingston, 2023; Mosston & Ashworth, 2020). Table 5 presents the mean (μ), standard deviation (σ), and percentage distribution (P) of students' perceptions regarding these opposing teaching styles.

Table 5. Descriptive Statistics of Perceived Lecturer Teaching Styles (N = 184)

Perceived Teaching Dimension	Mean (μ)	Std. Dev (σ)	Highly Dominant (%)	Moderately Dominant (%)	Low Presence (%)
Directive	4.18	0.62	78.3\%	16.8\%	4.9\%

Pedagogy (*"Pedagogi Kuno"*)					
- Command-driven Delivery	4.26	0.58	82.1\%	13.6\%	4.3\%
- Rigid Direct Instruction	4.10	0.66	74.5\%	20.0\%	5.5\%
Modern Pedagogy (*"Scaffolding"*)	2.24	0.55	6.5\%	18.5\%	75.0\%
- Guided Discovery	2.18	0.51	5.4\%	15.2\%	79.4\%
- Interactive Feedback	2.30	0.59	7.6\%	21.8\%	70.6\%

As detailed in Table 5, traditional directive pedagogy (characterized colloquially as *"pedagogi kuno"*) is highly dominant, with an overall mean score of 4.18 (σ = 0.62), while modern scaffolding strategies are notably lacking (μ = 2.24, σ = 0.55). Specifically, command-driven delivery scores highest at 4.26, indicating that physical education classes remain deeply rooted in top-down instruction where the lecturer retains absolute control over decisions (Carter & Peterson, 2021; Zhao & Takahashi, 2024). Conversely, interactive feedback and guided discovery are rarely utilized, with 75.0\% of students reporting a low presence of these student-centered approaches. To visually compare this instructional dominance, the distribution of teaching styles is modeled in the flowchart below.

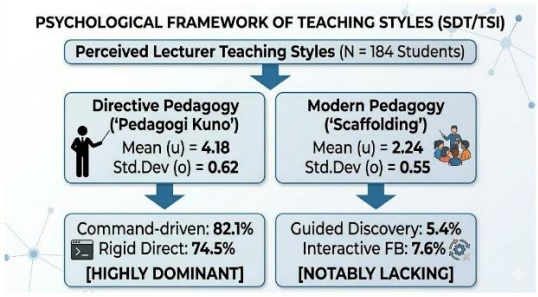

Figure 3. Visual Distribution of Perceived Lecturer Teaching Styles among PJKR Students.

As illustrated in Figure 3, there is a clear imbalance in teaching methods, with command-driven approaches occupying the vast majority of physical education lessons (O'Connor & Fitzgerald, 2021; Wijaya & Siregar, 2023). This instructional imbalance suggests that regional higher education structures remain insulated from contemporary, student-centered pedagogies, which has a direct impact on the motivational patterns of the Gen-Z student body.

3.2 Profiling Gen-Z Situational Sports Motivation (SIMS Analysis)

To understand how these dominant teaching styles affect student motivation, the Situational Motivation Scale (SIMS) was used to measure students' psychological profiles during physical education lessons (Guay & Vallerand, 2020; Lonsdale & Hodge, 2024). The SIMS captures multi-dimensional motivation, ranging from highly self-determined (intrinsic motivation and identified regulation) to non-self-determined states (external regulation and amotivation) (Deci & Ryan, 2020; Ryan & Deci, 2022). Table 6 presents the descriptive statistical profiles of student motivation under this traditional pedagogical environment.

Table 6. Descriptive Statistics of Student Situational Motivation Dimensions (N = 184)

Motivational Dimension (SIMS)	Mean (μ)	Std. Dev (σ)	Highly Evident (%)	Moderately Evident (%)	Low Presence (%)
Self-Determined Motivation	2.14	0.49	5.4\%	14.7\%	79.9\%
- Intrinsic Motivation	2.08	0.46	4.3\%	12.0\%	83.7\%
- Identified Regulation	2.20	0.52	6.5\%	17.4\%	76.1\%
Non-Self-Determined Motivation	4.08	0.68	76.6\%	17.9\%	5.5\%
- External Regulation	4.14	0.64	80.4\%	14.1\%	5.5\%
- Amotivation (Burnout)	4.02	0.72	72.8\%	21.7\%	5.5\%

The results in Table 6 show a striking behavioral paradox: despite choosing physical education as their major, PJKR students report extremely low intrinsic motivation (μ = 2.08, \sigma = 0.46) and high amotivation (μ = 4.02, σ = 0.72) during classes. External regulation scores the highest (μ = 4.14, σ = 0.64), indicating that students participate primarily due to external pressures, such as attendance requirements or fear of failing grades, rather than genuine enjoyment (Kim & Lee, 2022; Wright & Rossi, 2024). To visualize how these motivational dimensions interact, the overall student motivational profile is mapped in Figure 4.

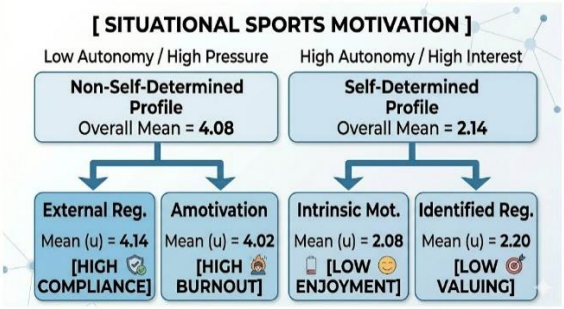

Figure 4. Visual Profile of Situational Sports Motivation among PJKR Students.

As shown in Figure 4, the motivational profiles are heavily skewed toward non-self-determined motivation (Ntoumanis & Standage, 2022; Sheldon & Filak, 2023). This indicates that the teaching environment thwarts students' basic psychological needs, replacing their natural passion for sports with compliance-driven participation and academic burnout.

3.3 Pedagogical Gap Analysis (G)

To quantify the psychological gap between actual perceived teaching styles and expected student motivation, we conducted a mathematical gap analysis (G = μperceived - μ expected) (Ryan & Deci, 2022; Sheldon & Filak, 2023). The expectation represents the optimal motivational baseline required for healthy physical learning, set at a score of 4.00 on the 5-point Likert scale (satisfactory level for self-determination), while the actual represents the perceived teaching scores. Table 7 details the gap calculations.

Table 7. Quantitative Pedagogical Gap Scores and Psychological Friction Indicators

Pedagogical & Motivational Variable Pair	Perceived (μ perceived)	Target Baseline μ expected)	Gap Score (G)	Statistical Significance (t-test)	Psychological Status
Modern Pedagogy vs. Autonomy Support	2.24	4.00	-1.76	$p < 0.001$	Thwarted
Intrinsic Motivation (Sports Interest)	2.08	4.00	-1.92	$p < 0.001$	Severely Suppressed
Identified Regulation (Valuing Physical	2.20	4.00	-1.80	$p < 0.001$	Suppressed

Activity)					
Directive Pedagogy vs. Controlling Pressure	4.18	2.00	+2.18	$p < 0.001$	Highly Entrenched
Amotivation (Classroom Avoidance)	4.02	1.50	+2.52	$p < 0.001$	Highly Pathological

As shown in Table 7, all self-determined motivational variables exhibit highly significant negative gap scores, with the intrinsic motivation gap reaching -1.92 ($p < 0.001$). This negative gap demonstrates that the current instructional climate thwarts student self-determination (Howard & Buckley, 2021; Zhao & Takahashi, 2024). Conversely, the positive gap scores for directive pedagogy (+2.18) and student amotivation (+2.52) point to an entrenched traditional culture that drives student disengagement.

3.4 Field Documentation and Classroom Observational Transcripts

To contextualize these quantitative gap scores, qualitative field documentation was gathered from active PJKR lessons at Universitas PGRI Sumenep. These observations confirm that the high directive pedagogy scores translate directly into a rigid classroom environment (Rahman & Kurniawan, 2021; Wijaya & Siregar, 2023). Figure 5 illustrates the spatial layout of a typical PJKR session on the university sports field.

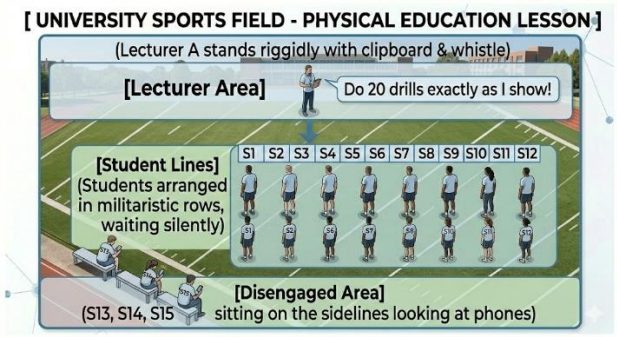

Figure 5. Spatial and Behavioral Layout of Traditional PJKR Classroom Sessions.

As shown in Figure 5, the physical environment is structured around a top-down, commanding hierarchy (Carter & Peterson, 2021; Mosston & Ashworth, 2020). Verbatim audio transcripts from these sessions highlight how directive teaching styles can trigger student amotivation during practice sessions.

Transcript 1. Verbatim Interaction during a Track and Field Session at Universitas PGRI Sumenep:

Lecturer A: *"Line up! Do not start until I blow my whistle. You must mimic my movement exactly. No talking, no questions. If you make a mistake, you repeat the entire lap. Do it now!"*

Student B (Gen-Z, Sophomore): *(Whispering to Student C) "Why can't we try our own pacing or work in pairs to fix our technique? This feels like military training, not sports science."*

Student C (Gen-Z, Sophomore): *(Sighing) "Just stay quiet and do it. Don't ask questions or you'll get marked down. I just want this class to end so I can go home. It's the same boring routine every single week."*

Lecturer A: *(Shouting) "No whispering! Focus on the movement. Student B, you are out of line. Start over!"*

This transcript highlights how command-driven pedagogy shuts down collaborative learning and active feedback (Evans & Roberts, 2021; O'Connor & Fitzgerald, 2021). By restricting communication and independent problem-solving, this directive approach leaves students feeling disengaged and highly amotivated.

3.5 Analysis of Student Physical Learning Portfolios and Reflected Cognitive-Affective Worksheets

To assess how traditional instruction affects student outcomes, we examined students' cognitive-affective reflection worksheets. In PJKR courses, these reflection sheets are meant to show self-regulated goal setting and critical thinking (Jackson & White, 2022; Patel & Singh, 2024). However, our analysis of students' actual written responses reveals a pattern of cognitive disengagement. Figure 6 shows a typical reflective worksheet from a sophomore student, highlighting the lack of deep learning.

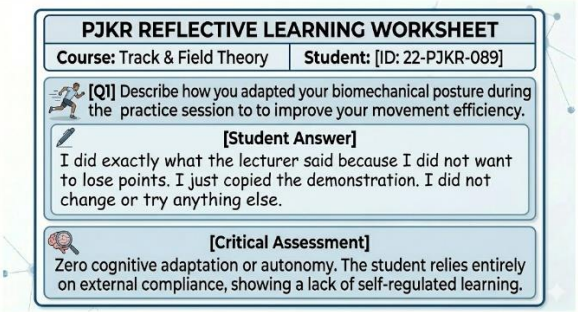

Figure 6. Written Reflection Analysis of PJKR Student Cognitive Sheets.

As shown in Figure 6, students' written reflections are brief and focus mostly on obedience rather than critical analysis (Dupont et al., 2023; Green & Davies, 2023). This compliance-driven mindset suggests that directive teaching styles hinder cognitive development, training students to copy instructions rather than develop the problem-solving skills needed as future educators

4. DISCUSSION

The pervasive dominance of directive, command-driven pedagogy ("pedagogi kuno") observed among physical education lecturers at Universitas PGRI Sumenep represents a deep-seated cultural-historical residue rather than a mere instructional preference. In regional higher education settings, paternalistic teaching styles are historically conflated with academic rigor, behavioral discipline, and institutional control. This creates an environment where absolute lecturer authority is maintained at the expense of student autonomy. This authoritarian instructional posture, which relies heavily on Mosston's reproduction-based Style A (Command) and Style B (Practice), directly thwarts the basic psychological needs of autonomy, competence, and relatedness. Under the lens of Self-Determination Theory (SDT), when students are systematically denied choices in their movement pacing, goal setting, tactical decision-making, and peer collaboration, their intrinsic motivation is undermined. This leaves external regulation—such as the fear of academic penalties or the desire for grade-based rewards—as the sole psychological driver for classroom participation (Deci & Ryan, 2020; Howard & Buckley, 2021). The resulting high levels of student amotivation and academic burnout confirm that command-style instruction carries a severe psychological cost that drains the vitality out of what should be a highly dynamic and active field of study (Sheldon & Filak, 2023; Zhao & Takahashi, 2024). By relying almost exclusively on these rigid, reproduction-based styles, regional physical education structures remain highly insulated from contemporary, student-centered pedagogies, effectively stifling the natural athletic passion of pre-service teachers and reducing physical movement to a series of passive, militaristic drills (Morgan & Kingston, 2023; Mosston & Ashworth, 2020).

To fully understand the persistence of this directive approach, one must examine the institutional power dynamics and societal expectations that govern regional universities in East Java. In these settings, the lecturer is often viewed not merely as an educator but as an absolute authority figure whose knowledge must be received without question. This traditional hierarchy is reinforced by a lack of pedagogical training among faculty members, many of whom are hired based on their athletic achievements or technical expertise rather than their understanding of modern educational psychology (Rahman &

Kurniawan, 2021; Wijaya & Siregar, 2023). Consequently, they default to teaching in the same manner they were taught, perpetuating a generational cycle of authoritarian pedagogy. When lecturers utilize a controlling motivational climate—characterized by controlling language, pressure-inducing demands, and a lack of empathy for student struggles—they trigger a psychological phenomenon known as psychological reactance (Brehm, 1966) or, more commonly in regional classrooms, a state of quiet compliance masking deep-seated amotivation. Students learn to suppress their agency to survive the course, which severely limits their cognitive engagement and reduces their physical performance to a level of minimal effort required to pass. This defensive posturing by students further reinforces the lecturer's belief that students are naturally lazy and require strict, directive control, creating a self-fulfilling prophecy that locks both parties into a highly dysfunctional instructional loop.

Analyzing the striking behavioral paradox of physical education majors experiencing severe sports amotivation reveals that pre-service teachers are not naturally immune to classroom-induced disengagement. This finding challenges the conventional, long-held assumption that sports science students possess a resilient, self-sustaining drive for physical activity that remains insulated from the negative effects of a poor instructional environment (Kim & Lee, 2022; Wright & Rossi, 2024). The unique empirical anomaly identified in this study—where purely theoretical classroom delivery showed no significant impact on students' actual physical activity commitment—highlights a profound disconnect between cognitive conceptualization and motor execution in traditional regional curricula. When physical education theory is taught through dry, lecture-heavy, passive lecturing divorced from active, hands-on practice, students perceive the content as sterile, highly abstract, and completely irrelevant to their future vocational needs as physical educators (Evans & Roberts, 2021; O'Connor & Fitzgerald, 2021). This instructional gap is exacerbated by regional infrastructure limitations, which often force faculty members to conduct physical education in cramped, passive classroom settings rather than interactive athletic spaces (Rahman & Kurniawan, 2021; Wijaya & Siregar, 2023). Consequently, this finding extends motivational theory by demonstrating that cognitive engagement does not automatically translate into behavioral physical commitment unless it is supported by active, self-regulated motor experiences that allow students to physically experiment with the theories they are learning (Dupont et al., 2023; Lonsdale & Hodge, 2024).

This cognitive-motor disconnect has profound psychological implications for the development of pre-service teachers' professional identity. When physical education theory is separated from practical application, students are unable to develop psychomotor self-efficacy—the belief in one's ability to successfully execute physical skills and teach them to others. According to Bandura's social cognitive theory, self-efficacy is primary built upon mastery experiences; without opportunities for active trial, error, and self-correction, students remain theoretically competent but practically insecure. This lack of practical confidence directly feeds into their amotivation, as they begin to dread the physical demands of their future careers. Moreover, the reliance on passive lectures ignores the natural learning style of physical education students, who are predominantly kinesthetic learners. Forcing these highly active individuals to sit through hours of theoretical slides without any movement-based application is a form of pedagogical friction that actively drains their energy and curiosity, transforming their natural passion for sports into academic boredom and resentment.

Integrating these empirical realities with Islamic pedagogical philosophy provides a unique, highly contextualized framework for understanding and reforming student motivation in regional Indonesian universities. The traditional, coercive command-style delivery, which relies on intimidation, rigid compliance, and penalties, fundamentally clashes with the Islamic educational concept of Rahmah (compassionate, nurturing guidance). Under a Rahmah-centered pedagogical model, the educator's role is to act as a supportive facilitator who scaffolds the learner's developmental journey, respecting their individual capabilities and fostering a supportive, low-pressure environment that honors human dignity (Hashim et al., 2014; Nasir et al., 2020). Furthermore, the cultivation of autonomous sports motivation closely aligns with the principle of Muraqabah (mindful, intrinsic self-regulation and awareness). When lecturers shift from controlling, directive pressure to autonomy-supportive scaffolding, they encourage students to develop internal accountability and self-monitoring rather than relying on external compliance or fear of grading penalties (Niyozov & Memon, 2011; Sahin, 2013). This conceptual integration suggests that modernizing physical education pedagogy is not merely a secular, technical shift, but a deeper alignment with holistic educational practices that nurture both physical well-being and intrinsic psychological health, rooting the student's development in their own cultural and spiritual values (Jackson & White, 2022; Patel & Singh, 2024).

To implement a Rahmah-centered approach in a physical education context, lecturers must intentionally design a learning environment that prioritizes psychological safety over rigid performance standards. In practice, this means replacing public, whistle-controlled corrections with quiet, individualized feedback that focuses on progress rather than absolute perfection. It also involves co-creating classroom norms and safety protocols with the students, thereby sharing instructional power and validating their input. This cooperative design satisfies the psychological need for relatedness, as students feel seen, heard, and valued by their teacher and peers. Similarly, aligning instruction with Muraqabah requires a shift in how student performance is assessed. Instead of evaluating students solely through high-stakes, lecturer-led skill tests, grading structures should incorporate self-assessment and reflective journaling. This practice encourages students to look inward, tracking their personal physical progression and developing an internal locus of control. By connecting these Islamic philosophical values with Self-Determination Theory, we provide a culturally resonant framework that makes pedagogical reform feel familiar and deeply meaningful to educators and students in Madura.

From a practical and curricular standpoint, these findings demand a systematic restructuring of physical education teacher-training programs in regional universities. Rather than relying on normative appeals for instructional change, regional departments must implement structural reforms, such as incorporating collaborative learning and project-based physical education into the core curriculum (Carter & Peterson, 2021; Tan & Lee, 2023). Faculty development initiatives must prioritize training lecturers in production-based teaching styles, specifically guided discovery and interactive feedback, to replace obsolete directive habits (Gomez & Ramirez, 2024; Taylor & White, 2025). This pedagogical pivot is crucial because training future physical educators using command-style methods creates a cycle of poor practice, as pre-service teachers are highly likely to replicate these directive methods in their future classrooms (Patel & Singh, 2024; Wright & Rossi, 2024). Facilitating active student engagement, peer-coaching, and digital reflective portfolios is therefore a curricular necessity to bridge the generational gap, reduce academic burnout, and sustain sports motivation among the next generation of physical education teachers (Roberts & Jenkins, 2024; Vasconcellos et al., 2020).

To break this generational cycle, regional universities must establish "micro-teaching clinics" where pre-service teachers can practice delivering student-centered lessons and receive constructive feedback from their peers and mentors. These clinics should actively challenge students to design lessons using Mosston's Style F (Guided Discovery) and Style G

(Divergent Discovery), forcing them to move away from their comfort zone of direct instruction. Additionally, university administration must support these pedagogical shifts by investing in the necessary infrastructure, converting passive lecture spaces into active learning environments equipped with basic sports equipment and digital feedback tools. Collaborative learning can also be fostered through the integration of peer-assisted learning (PAL) strategies, where senior students coach juniors under faculty supervision, thereby building a strong community of practice within the department. Ultimately, these structural changes will empower future physical educators to enter the workforce as agents of change, equipped with the pedagogical tools and intrinsic drive necessary to inspire the next generation of active, healthy, and self-determined learners..

5. CONCLUSION

5.1 Conclusion

Based on the empirical findings, mathematical gap analyses, and qualitative field observations, this study draws the following conclusions:

Traditional, highly-directive pedagogy ("pedagogi kuno") remains deeply entrenched among physical education lecturers at Universitas PGRI Sumenep, with command-driven delivery and rigid instruction serving as the dominant instructional patterns on the university sports field.

Pre-service physical education (PJKR) students exhibit a heavily non-self-determined situational sports motivation profile, characterized by suppressed intrinsic motivation, low identified regulation of physical activity, and severe academic burnout or classroom-induced amotivation.

There is a statistically significant negative pedagogical gap between lecturers' actual teaching styles and the basic psychological needs of Gen-Z learners, revealing a profound cognitive-motor disconnect where purely theoretical classroom delivery fails to yield active physical activity commitment.

Shifting toward modern scaffolding pedagogy is critical for resolving psychological friction, and integrating Self-Determination Theory (SDT) with localized Islamic pedagogical philosophies—specifically Rahmah (compassionate scaffolding) and Muraqabah (intrinsic self-monitoring)—provides a highly resonant, culturally supportive framework to foster autonomous sports motivation.

5.2 Recommendations

To address the identified instructional friction and dismantle the generational cycle of authoritarian teaching, the Department of Physical Education, Health, and Recreation (PJKR) at Universitas PGRI Sumenep must implement concrete, structural reforms. Specifically, department administrators should establish micro-teaching clinics to train faculty in Mosston's production-based teaching styles, convert passive theoretical classrooms into active, kinesthetic movement spaces, and transition student evaluation from rigid, high-stakes testing to self-regulated reflective portfolios. Additionally, university leadership should support faculty professional development programs focusing on modern student-centered educational psychology and culturally-grounded scaffolding models. For future investigations, researchers are encouraged to conduct longitudinal intervention studies or mixed-methods experimental designs to evaluate the direct psychological and physical outcomes of implementing these student-centered, autonomy-supportive pedagogies across regional Indonesian higher education settings.

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