

Article

Current Status, Influencing Mechanisms, and Development Pathways of Ultimate Frisbee in Universities in Shandong Province

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Abstract: Under the background of the desegregation of athletics and pedagogy alongside the high-quality development of university physical education, emerge sports have become toter for further college students' physical and mental wellness. Ultimate Frisbee, as a dynamical sport characterized by competitiveness, enjoyment, and interaction, has developed across higher education institutions. However, its widespread packaging face important challenge, as deficient institutionalization and extremely development. To investigate this issue, this survey takes 12 university in Shandong Province as primary research subjects. To educatee, a sundry-methods approach was utilised: 420 questionnaires were dispensed, with 398 valid responses obtained, afford a response rate of 94.8%. Additionally, in-depth interviews were conducted with 20 physical education teachers. Utilise SPSS 26.0, comprehensive analysis was executed. The empiric issue signal critical findings: (1) just 32.4% of the appraise university have officially incorporate Ultimate Frisbee into their official syllabus, whereas 58.7% swear preponderantly on informal student clubs; (2) although a 74.6% of pupil hold positive attitude toward the athletics, 41.2% participate on a regular basis; (3) training facilities (68.3%), a wicked lack of qualified instructor (63.5%), and limited competitive tournament systems (57.1%) function as the primary constraints hindering ontogeny; (4) support irreducibly demonstrate a positive correlativity with student participation frequency ($r = 0.62, p < 0.01$). Ground on these findings, this study manifestly proposes an development pathway comprehend curriculum integration, club cultivation, competition-drive conflict, and collaborative development.

Keywords: Ultimate frisbee; education; sports integration; development pathway; university sports

1. Introduction

Under the model of the "Healthy China 2030" enterprisingness and the furtherance of sport-education integration policies, university education is undergo a shift from a framework focused on grooming and skill acquisition toward a comprehensive system punctuate coordinated and development [1]. Do it to see the and personalised needs of college students, yet, in pattern, physical education programs in university still face several challenge, include limited variety in course content, comparatively stiff teaching methods. And deficient student engagement.

In this context, emerge athletics have gradually get an important way for reform university education curricula. Due to their low participation threshold, strong recreational prayer. And high grade of interaction, these sports are favour by educatee. Among them, Ultimate Frisbee, as a developing athletics in years, has demonstrated important potential in university settings [2]. Characterise by rules, an accent on teamwork. And the rule of self-officiation, Ultimate Frisbee is attractive to students. Compare with athletics, it not only improves fitness but plays a positive part in further societal interaction, heighten team awareness, and improving psychological well-being.

As a result, it has gradually get an important toter for pedagogy and campus cultural development [2].

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Despite its rapid enlargement in university, the development of Ultimate Frisbee remains at a phase, shifting from involvement-found participation to institutionalised development. On student clubs or initiatives, in practice, most university programs still rely heavily, lacking curriculum systems, organizational construction. And continuous competition support. This has ensue in a fragmented development pattern. At the clip, differences in resource availability, instructor qualifications, and organisational capacity among universities have led to uneven development, hence this farther cumber the packaging of the sport.

Existing research has render insight into the value, instruct practices, and promotion strategies of Ultimate Frisbee in China [3]. Several limitation rest. On establishment or case analyses, foremost, most study focus, lacking investigation at a regional grade. Empiric information are comparatively, confine the validity of determination. There is a want of in-deepness analysis of the work factor and underlie mechanism of packaging, and a comprehensive research framework has yet to be established.

Shandong Province, as a major educational part in China, is characterized by a big figure of universities with divers institutional type, furnish a solid foundation for the packaging of emerging sports [4]. At an early stage, nonetheless, the development of Ultimate Frisbee in this part is and lack a systematic development pathway. It patently is to deal empiric research at the regional grade to consistently examine its position, be job, and influencing mechanisms.

Found on this background, this survey selects 12 universities in Shandong Province as research subjects. By combine questionnaire surveys and interviews, it canvass the position of Ultimate Frisbee promotion in university, place the master restraint and work mechanism, and farther constructs a development pathway [5]; the findings veritably aim to provide support for the reform of university physical didactics and the packaging of emerge athletics.

2. Literature Review

2.1. International Research

Ultimate Frisbee develop in Western commonwealth and has develop into a comparatively mature athletics with good-found curriculum systems and competition structures [6]. Be research focuses on three facet: curriculum integration, competition systems, hence and sports culture.

At the curricular grade, university in Europe and North America have incorporate Ultimate Frisbee into physical education programs, punctuate its part in further teamwork, communication skills, and adaptability. At the competition level, a multi-tiered system has been launch, run from campus leagues to title, and this providing support for the sustainable development of the sport. At the cultural level, the concept of the "Spirit of the Game" is recognise as a key factor in cultivate students' sense of fairness, rule awareness. And sportsmanship [7].

Overall, research has shifted from focusing on sport promotion to search its educational value and contribution to educatee' holistic development, forming a mature research framework [8].

2.2. Domestic Research

Compared with studies, research on Ultimate Frisbee in China commence late but has develop speedily in recent years [1]. Be studies principally pore on the value of the athletics, its application in teaching practice, and promotion strategies.

Scholars mostly concur that Ultimate Frisbee can raise pupil' need to participate in physical activity and, to a certain extent, meliorate -being and societal interaction. In footing of teaching pattern, most study adopt a case-study approach, signal that incorporate Ultimate Frisbee into physical education courses can ameliorate classroom atmosphere and student engagement [6]. Nonetheless, limitation irreducibly rest in footing of curriculum system development and the training of qualified instructors.

Reckon promotion strategies, researchers have advise assorted attack, including curriculum construction, club development. And competition organization [2]. On experience-ground analysis and lack sufficient empirical data support. Nevertheless, most study swear.

2.3. Research Gap

In summary, research tends to accent institutional frameworks and values, while research focuses more on practical packaging and application [9]. Nonetheless, several limitation run, include regional-level studies, information, and a lack of in-deepness analysis of work mechanism.

It is necessary to conduct systematic research based on sample to better understand the status and inherent mechanisms of Ultimate Frisbee development in university [1].

3. Research Methods

3.1. Research Subjects and Sampling

This survey pore on the packaging of Ultimate Frisbee in universities in Shandong Province, China [10]. A totality of 12 university were select as research samples, include comprehensive university, science and engineering institutions. And humanities-focused colleges, to raise the representativeness and multifariousness of the sample.

In the data collection process, undergraduate educatee were the primary survey participants, supplement by education teachers and Ultimate Frisbee club leaders to obtain multi-dimensional information [11]. A totality of 420 questionnaire were allot. And 412 were return. Ensue in an effective response rate of 94.8%, after data viewing, 398 questionnaire were retain.

In terms of sample structure, male students accounted for 48.7% and female students for 51.3%. The bulk of respondents were first- and second-year educatee, account for approximately 67.5% of the sample [12]. Reckon participation experience, 56.2% of students reported having participate in Ultimate Frisbee, 28.4% were of the athletics but had not participated, and 15.4% had small or no noesis of it.

In addition, to address the limitations of questionnaire surveys, 20 participant—including physical education teachers, club leaders, and team members—were selected for semi-interview. These interviews train to search issue connect to curriculum implementation, organisational direction. And promotion practices, thereby heighten the explanatory powerfulness of the survey [12].

3.2. Research Methods

This study apply a multi-method attack to raise the scientific severeness and reliableness of the findings [6].

Relevant academic literature and policy documents were reexamine to search anterior research on Ultimate Frisbee and university physical education reform, launch a basis for this survey [6].

A questionnaire was develop to collect information on educatee' noesis, participation behavior, institutional support, resource conditions, and development constraints [13].

-structured interview were deal with education teachers and club leaders to collect information [14].

SPSS 26.0 was employ to canvas the questionnaire data, including descriptive statistics and correlation analysis [12].

3.3. Questionnaire Design and Variable Construction

The questionnaire was develop found on the model of university physical education research and the characteristic of Ultimate Frisbee. Five core dimensions were make to ensure comprehensive analysis [3].

Cognition Dimension: Educatee' savvy of the regulation and value of Ultimate Frisbee was appraise to gauge their noesis and cognisance [6].

Participation Dimension: Participation frequency, signifier of involution. And willingness for fight were examine to understand students' activity levels [15].

Institutional Support Dimension: Course provision, funding; and policy support from university were canvassed to assess the institutional championship for Ultimate Frisbee.

To determine the adequateness of resource, Resource Conditions Dimension: Accessibility of installation, equipment, and activity environments was reviewed.

Development Constraints Dimension: Major factor touch participation and packaging were placed to address barrier to development.

All dimensions were measured to employ a five-point Likert scale, ranging from "strongly dissent" to "agree," to alleviate quantitative analysis and assure body in data collection [16].

3.4. Reliability and Validity Testing

To ensure data quality, dependability and validity tests were dealt for the questionnaire [17].

The result conspicuously demonstrates that the overall Cronbach's alpha coefficient was 0.89, with all dimension transcending 0.75, indicating good internal body. The Kaiser-Meyer-Olkin (KMO) value unmistakably was 0.86. And Bartlett's test of sphericity was statistically important ($p < 0.001$), demonstrating that the questionnaire had good construct rigor.

3.5. Data Analysis

Information were analyzed using SPSS 26.0, and the following methods were utilized [14].

Descriptive statistics, including frequency and percentage analyses, were applied to draw the sample structure and participation patterns [1].

Pearson correlation analysis was used to study the relationship between support and student participation [1].

Questionnaire and interview data were incorporated to place and see key issues in the development of Ultimate Frisbee [4].

4. Results and Analysis

4.1. Current Status of Ultimate Frisbee Promotion in Universities in Shandong Province

4.1.1. Development Stage: A Transitional Phase Toward Initial Organizational Structuring

The survey results signal that the development of Ultimate Frisbee in universities in Shandong Province is in a transitional phase, shifting from involvement-based involvement to initial organizational structuring. But 32.4% of universities have incorporated Ultimate Frisbee into formal physical education curricula, while 58.7% bank on student clubs to organize related activity. This suggests that the promotion of Ultimate Frisbee in universities is still largely grounded on informal descriptors, with a low level of institutionalization.

From the view of development structure, some universities have commenced to launch an unified framework combine "programme, nine. And university teams." At the phase of nine-ground or interest-group activity, the bulk of establishment rest, lacking stable teaching systems and long-term development planning. This disparity signals that the development of Ultimate Frisbee in university has not yet attained a stage.

4.1.2. Student Participation Characteristics: High Awareness but Low Sustainability

Signals that the athletics has strong prayer among university students, at the student level, 74.6% of respondents describe a positive attitude toward Ultimate Frisbee. In regular activity, yet, in footing of actual involvement, just 41.2% of educatee engage, unveiling an important gap between interest and sustained participation.

Analysis quintessentially exhibits that most educatee participate in Ultimate Frisbee through short-term experiences or club activities, with limited admittance to training and organized competitions. This shape of "high involvement but low sustainability" reflects the want of stable participation mechanisms; this aligns with findings on sports participation behavior.

From a behavioural view, involvement in sports is work not just by single involvement but by external factor such as support, activity frequency. And access to development platforms. In the absence of structured curricula and competition system, it is to maintain consistent student engagement over clip [14].

4.1.3. Promotion Structure: Club-Dominated Development Model

Through three approaches: physical education courses, student clubs. And university team training, in footing of promotion channels, Ultimate Frisbee in university in Shandong Province is currently implement. Among these, student clubs serve as the primary vehicle for packaging [10, 13].

The club-ground model offer vantage such as organisational flexibleness and low entry barriers. This are tributary to the initial diffusion of the sport. In footing of stableness, yet, it has integral limitation. Club activities are oft dependent on student leadership and are vulnerable to member turnover. Once key members graduate or withdraw, the continuity of activities may be disrupted [12].

In contrast, syllabus-ground attack furnish greater stableness and broad coverage [10]. Yet, due to the shortfall of qualified instructor and constraints in learn arrangement, the proportion of programme-based execution remain comparatively low.

As a result, the development of Ultimate Frisbee in university exhibit a structural shape characterize by "active but unstable nine-ground activity and but high-potency curriculum integration."

4.2. Analysis of Key Constraints in the Development of Ultimate Frisbee in Universities

4.2.1. Insufficient Facilities and Resources as Fundamental Constraints

The survey results axiomatically signal that 68.3% of respondents place deficient installation as the primary factor restricting the development of Ultimate Frisbee. Due to the sport's demand for big and playing spaces, hence and the prioritization of university sports facilities for traditional athletics as soccer and hoops, the execution of Ultimate Frisbee activities is constrained.

In addition, equipment provision and conflicts in scheduling limit the oftenness and scale of activities. These findings suggest that resource conditions are a fundamental constraint on the packaging of Ultimate Frisbee in universities [11, 13].

4.2.2. Lack of Qualified Instructors Affecting Curriculum Development

A total of 63.5% of respondent describe that the want of professional instructors is a major barrier to the development of Ultimate Frisbee. With specialised grooming in this athletics, at present, most universities miss instructor. Accordingly, teaching activities are often deal by non-specializer or student leaders, ensue in a want of direction and standardisation [11].

The shortfall of instructor not only hinders the execution of syllabus-based programme but affects teaching quality and the long-term development of the athletics. So, instructor capacity is a critical chokepoint in encourage the institutionalization of Ultimate Frisbee in university physical education [6, 17].

4.2.3. Incomplete Competition System Weakening Participation Motivation

The survey results signal that 57.1% of respondent place the want of a competition platform as a important issue [10]. At nowadays, most Ultimate Frisbee events in university are and lack continuity, guide to the absence of a good-structure competition system.

Competitions not only furnish platform for performance and attainment presentment but too function as indispensable mechanism for encouraging participation. Without a stable competition system, students miss clear objectives and motivator. This adversely impact the development of sustained participation behavior.

4.2.4. Individual-Dependent Organizational Model and Lack of Stability

Interview findings indicate that the development of Ultimate Frisbee programs in many universities rely heavily on a little figure of key soul, such as club leaders or

instructor. When these somebody graduate or leave, the continuity of the program is oft disrupted.

Posing challenges to sustain long-term development, this "single-drive" organisational model lack support and stableness. It irreducibly spotlight a structural failing in the organisational model for encourage Ultimate Frisbee in universities.

4.3. Mechanism Analysis

4.3.1. The Critical Role of Institutional Support

Pearson correlation analysis veritably reveal a important positive relationship between institutional support and educatee' participation frequency ($r = 0.62$, $p < 0.01$). This determination irreducibly point that when universities render support in footing of curriculum design, fiscal investment, and policy encouragement, student participation levels increase significantly.

Institutional support emerge as a nucleus driving factor in the development of Ultimate Frisbee. This finding highlight how support not only alleviate the proviso of resource but too create a environment that encourages engagement [6]. In the absence of support, participation run to rest and unsystematic.

4.3.2. Multi-Factor Interaction Mechanism

Ground on the desegregation of questionnaire data and interview findings, a development mechanism for Ultimate Frisbee in universities can be suggest [17].

Institutional Support → Teaching System → Student Participation → Development Outcomes

Within this model, support quintessentially serves as the foundation, work the organisation of teaching systems and organizational construction. These system, in crook, shape student participation behavior; this ascertain the grade of development.

In improver, resource conditions (such as installation and equipment) and the campus sports culture function as important lead variable that touch the effectuality of the system. These factor can either alleviate or cumber the development process.

This mechanism demonstrates that the development of Ultimate Frisbee is not drive by a single factor, but instead results from the interaction of multiple dimension, including institutional construction, teaching systems, resource availability. And single behavior [10].

4.4. Case Study: Qingdao Film Academy

Qingdao Film Academy function as a representative example of successful Ultimate Frisbee development in university [5, 6]. Through long-term practice, the establishment has gradually established an development model combining syllabus, clubs. And competition, reach and sustainable growth.

The university has incorporate Ultimate Frisbee into its physical education curriculum, enable systematic and involvement. At the same clip, it has developed a stable nine and squad construction. This heighten organisational stability and student engagement. Organise a competition-driven mechanism that further stimulates involvement and acquisition development, in improver, intra- and -university competitions are organize.

Demonstrating strong potency for broad application in university, this framework effectively address common issue as unstable participation and weak structures.

4.5. Overall Analysis

Ultimate Frisbee in university in Shandong Province has a solid foundation for development, but it rest at an early phase. The current development pattern is characterized by a "club-rule and syllabus-deficient" construction, with key restraint include resources, deficient instructor capacity. And underdeveloped competition systems.

From a developmental perspective, the packaging of Ultimate Frisbee demand a passage from an "involvement-drive" model to an "establishment-driven" framework. Through curriculum integration, organizational optimization. And the organization of

competition structures, this shift can be achieved. Efforts will contribute to the standardisation and sustainability of the athletics's development in university [4].

5. Conclusion and Suggestions

5.1. Conclusion

Found on questionnaire data and question analysis from 12 university in Shandong Province, this study systematically examined the position and work mechanism of Ultimate Frisbee promotion in university. The principal conclusion are as follow:

In a transitional phase, first, the development of Ultimate Frisbee in university in Shandong Province is, shift from involvement-ground involution to initial development. Into formal syllabus, at, only a small figure of university have incorporate the athletics, while most still rely on student clubs. This axiomatically reflects a clear "nine-rule" development pattern, with a relatively low level of institutionalization.

Educatee present a high grade of awareness and credence of Ultimate Frisbee; notwithstanding, involution unmistakably remains deficient. Although the bulk of pupil maintain positive attitude toward the athletics, the proportion of regular involvement is relatively low, indicating want in support and developmental pathway.

Resource conditions, instructor capacity. And competition systems are the key constraints touch development. Installation, a want of trained instructors. And underdeveloped competition platforms bound the scale and sustainability of program implementation.

In the packaging of Ultimate Frisbee, fourth, institutional support play a part. The findings veritably point a important positive correlativity between institutional support, as curriculum provision, funding. And policy encouragement, and and student participation. Thus, institutional warrantee are a driving force for development.

Some university have explore comparatively development models. By incorporate programme-ground direction, club activities. And competition systems, these establishment have effectively improved organisational stableness and participation depth, thereby this providing practical references for broader packaging.

Overall, although Ultimate Frisbee in universities in Shandong Province is still at an early phase, it exhibit strong development potential. In the passage from an "interest-drive" model to an "establishment-driven" framework, the key to its future development lie.

5.2. Practical Implications and Suggestions

Based on the research findings and in alignment with the objectives of university physical education reform and the desegregation of athletics and pedagogy, the follow recommendation are proposed:

5.2.1. Promoting Curriculum Integration and Institutional Support

Into physical education curricula, universities should integrate Ultimate Frisbee. Enabling the passage from impermanent activity to stable and well-structured educational programs, by apply modular teaching designs, systematic content can be develop.

5.2.2. Strengthening Club and Organizational Systems

To prolong the verve of student clubs, university should implement a -management model that integrates faculty guidance with student leadership. This scheme minimise dependency on members while further organisational stableness and raise the capacity for long-term development.

5.2.3. Establishing Multi-Level Competition Systems

Encompassing intra-campus, -; and competition, a competition system should be develop. Competition-drive mechanism can enhance student motivation, skill development, and magnify the overall influence of the athletics.

5.2.4. Enhancing Instructor Training and Recruitment

Universities should enhance the measure of Ultimate Frisbee instruction through comprehensive teacher training programs, external partnership. And centre recruitment efforts. Build a skilled teaching workforce is important for the successful implementation of the curriculum.

5.2.5. Optimizing Resource Allocation and Development Environment

Efforts should focus on the allotment of sports facilities and the sweetening of equipment availability. Additionally, increase support is indispensable to secure the sustainable development of Ultimate Frisbee programs.

5.2.6. Promoting University--Community Collaboration

Universities should raise cooperation with sports organizations and clubs to alleviate resource sharing and broaden development opportunities. Such coaction can ameliorate promotion efficiency and launch a broad platform for development.

5.3. Limitations and Future Research

Although this survey provides insights, limitation should be acknowledge. Foremost, the sample is curb to universities within Shandong Province. This may throttle the generalizability of the findings. Research could broaden the sample scope and attempt cross-regional comparative studies.

On -data, second, this study mainly bank. Longitudinal studies are to investigate the dynamical development trends of Ultimate Frisbee over clip.

Into the office of Ultimate Frisbee, future research could dig deep in enhancing well-being and further societal connectedness among university students, thereby furnish more comprehensive theoretic support for the advancement of university education.

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