Communication

Investigating the Organization and Management Model of "Challenge Cup" College Student Competition Activities

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Abstract: As an important way for colleges and universities to carry out quality education and cultivate modern talents, extracurricular academic, scientific and technological work knowledge competitions have gradually attracted attention from all walks of life and the universities themselves. As the current relevant research continues to deepen, the problems are gradually revealed. To explore the organization and management model of "Challenge Cup" competitions in colleges and universities and achieve the scientific development of different competitions, it is necessary for college event organizing departments and professional teachers to adapt to the development of the times, actively expand the online education competition polishing platform under "Internet +" and create online and offline system activities. Furthermore, leverage the effectiveness of competition in educating people and deepen the reform of second-classroom education in colleges and universities. In conclusion, extracurricular academic scientific and technological works knowledge competitions have emerged as a vital component of quality education within colleges and universities, serving as a means to foster the development of modern talents. Over time, these competitions have garnered attention from various stakeholders, highlighting their significance in the educational landscape. However, as research in this area advances, it has become evident that certain challenges exist within the organization and management of such competitions.

Keywords: Organization; Management; Challenge Cup; College student; Competition activities

1. Introduction

The "Challenge Cup" competition, as a directional and demonstrative competition for college students, is currently one of the major academic science and technology competitions in colleges and universities in China (Bao, Liu, & Peng, 2018). In addition to this competition, different types of competitions have developed vigorously in recent years. At the same time, many colleges and universities have formed a pattern of rapid development of competitions in different disciplines, with the "Challenge Cup" competition as the leader, and its talent training effect is also increasingly prominent (Weiming, Chunyan, & Xiaohua, 2016). Student competitions have emerged as dynamic platforms for nurturing innovation and fostering interdisciplinary collaboration among young talents worldwide (Aithal & Aithal, 2023). Among these, the "Challenge Cup" stands out for its unique approach to cultivating entrepreneurial spirit and problem-

solving skills among students. Originating as an initiative by the organization, the "Challenge Cup" has become a prominent fixture in the academic calendar, attracting participants from diverse backgrounds and fields of study. The primary objective of the "Challenge Cup" is to identify and support innovative student-led ventures addressing pressing global challenges (Kaldewey, 2018). Unlike traditional academic contests that focus solely on theoretical knowledge, the "Challenge Cup" places a strong emphasis on practical solutions and real-world applicability. Participants are encouraged to develop innovative ideas spanning various domains, including technology, healthcare, education, sustainability, and social impact, fostering a culture of entrepreneurship within educational institutions.

The competition structure typically involves multiple stages, starting from regional qualifiers and culminating in a global final where finalists present their projects to a panel of judges comprising industry experts, investors, and seasoned entrepreneurs. Throughout the process, participants receive mentorship, networking opportunities, and access to resources to refine their ideas and scale their ventures. This structured approach provides students with valuable hands-on experience and equips them with crucial skills necessary for success in the rapidly evolving landscape of innovation and entrepreneurship. Moreover, the "Challenge Cup" bridges academia and industry, facilitating collaborations and knowledge exchange between students, researchers, startups, and established companies. The competition contributes to the broader ecosystem of technological advancement and social change by showcasing groundbreaking innovations and disruptive solutions. As such, understanding the "Challenge Cup" role in shaping the educational landscape and nurturing the next generation of innovators is paramount for educators, policymakers, and stakeholders invested in fostering a culture of innovation and entrepreneurship among today's youth.

2. Problems in the Organization and Management of Current Competition Activities

2.1. The Organization and Management System of University Competitions is Imperfect

For college competitions, whether the management is standardized or not determines the effectiveness of the competition to a large extent. Analyzing the form of competitions organized by some colleges and universities, many colleges and universities have a rigid and single management system for the second classroom science and technology innovation competition. They lack the overall coordination of the competition organizing unit, resulting in loopholes in management; some colleges and universities do not pay enough attention to the competition, and others The investment in human, financial, and material resources is small, making it difficult to build support facilities to meet the needs of the competition; incentive measures are imperfect, and students and teachers are not highly motivated to participate.

2.2. Imperfect Construction of the Teaching Team

From the instructor's perspective alone, the strength of the teacher's ability is an important guarantee for the smooth development of the competition. However, many colleges and universities in my country currently have not established a dedicated second classroom science and technology competition management education team, resulting in a relatively scattered teacher force involved in competition guidance; some teachers have limited understanding of subject competitions, and their guiding ideas and methods are difficult to meet the needs of competition development; The construction of the teaching team is imperfect, and the academic level and age structure of many teachers are unreasonable; some teachers lack the awareness to guide students actively, and their main purpose of participating in competitions is practical benefits.

2.3. Insufficient Preparation in the Early Stage

Preparation for the competition also determines the progress of related work. For example, in the process of holding on-campus competitions, many forms of competitions have begun to choose a hybrid online and offline model; that is, through early publicity, the university competition teams are clearly defined, and then online competitions and school-level competitions can be carried out using offline competitions and online collection. Polish your work for display or post contest announcements online. However, different teams competed offline. During this process, due to insufficient early preparations by some secondary colleges, the role of the online and offline competition modes was not fully utilized, making it difficult for the competition to proceed smoothly.

3. Feasibility of Organization and Management Model for Online and Offline Competitions

3.1. Conducive to Improving the Current Status of Competition Organization

First of all, colleges and universities, in order to give full play to the application value of the online and offline hybrid system, will focus on the improvement of the on-campus management system. From establishing on-campus platform projects to improving incentive measures, existing problems will be gradually improved to ensure the competition starts smoothly. Secondly, a team of teachers should be actively formed to guide the competition within the school. In order to better cope with college student competitions, managers will build and improve the management team structure based on the current status of the school's teaching staff. Finally, clarify the guiding value of the hybrid system. Through

preliminary preparation work, students and teachers can fully understand the new competition format so that the subsequent competition can be carried out smoothly.

3.2. Improve the Education in Colleges and Universities

At present, the introduction of online and offline hybrid teaching models has become an important measure for many universities to improve the quality of education and teaching and promote teaching development. In addition, it is well known that competitive competitions are important for cultivating students' innovative spirit and comprehensive practical ability in college education. They can create a good campus cultural atmosphere, stimulate students' intrinsic learning interests and potential, and cultivate innovative thinking and teamwork ability. Effectively combining the two can enrich competition forms and promote the development of student competition work.

4. Establish Effective Measures to Improve Competition Organization and Management

4.1. Construction of Online Organization Platform

4.1.1. Clarify the Person in Charge of the Competition

After the relevant departments announce the competition for college students, colleges and universities need to select teachers to be in charge of a certain competition based on the characteristics of the competition and the direction of teachers' subject teaching and research. The main responsibilities of the person in charge are to contact the competition sponsoring department, collaborate and lead the entire competition process; arrange for on-campus students to undergo training and preside over the on-campus preliminary selection work; understand the students selected for the competition from multiple aspects, and pay attention to the students with a correct mentality and outstanding professional achievements, so as to guarantee the follow-up work fully.

4.1.2. Establish Special Research Group

The current hybrid competition is not yet mature. In order to ensure the smooth development of the competition, colleges and universities need to set up a special project team and use scientific research and technology experts to build a school-based online education platform. The online platform needs to have a publicity section to achieve the effectiveness of publicity; different professional competition sections meet the needs of competition activities in different majors; and an education and teaching section, teachers from different majors can carry out relevant online teaching activities based on student needs to enrich traditional Education form; student independent learning section, before and during the competition, allows students to complete independent learning and further understand the standards and rules of the competition. At the same time, they can also upload competition-related knowledge to promote the development of students' comprehensive abilities and enable students to prepare before competition. At the same time, the online education project team also needs to adjust the platform based on feedback from teachers and students to ensure the effectiveness and pertinence of the education platform. In this way, the effective development of subsequent competition work can be ensured, and students' comprehensive abilities and qualities can be developed.

4.1.3. Building Software Support Platform

With the continuous development of college student competitions, different types of competitions are also increasing, but they have not yet reached the effect of benefiting all students. In response to this situation, it is necessary to expand theoretical and practical teaching accordingly, and it is also necessary to combine competition with teaching (Liu, 2014). First, the competition is introduced as a project in offline teaching cases, allowing students to try to solve practical problems based on the knowledge they have learned. Secondly, select science and technology competition projects related to teaching, design a curriculum system based on the competition, enrich offline teaching content, and promote the comprehensive development of students. Thirdly, the competition content is split according to the theoretical and experimental teaching content, and the functional requirements are designed as online template teaching content so that students can have a clearer understanding of practical standardization and achieve innovation in theoretical and experimental teaching. Finally, for recent competitions, you can refine them and upload the competition standards, competition process, etc., to the online education platform, which can promote competition activities and the development of competitions within the school.

4.2. Deepen the Construction of the Training Mechanism

In online and offline student competitions, it is necessary to focus on training teachers and students to ensure the effective development of follow-up work (Lai & Peng, 2019).

4.2.1. Construction and Improvement of Student Competition Team

In the current college education, in order to strengthen students' practical and innovative abilities and promote the development of students' competition level, more colleges and universities have begun to establish innovative practice teams with the support of relevant departments and have established innovation laboratories at all levels and The studio has also created a competition team with strong comprehensive capabilities in order to cultivate students' abilities and shape their values, and represent the school in various knowledge and practical skills competitions. In order to ensure the smooth development of online and offline competition activities and enable students to perform stably, it is necessary to focus on cultivating students' comprehensive abilities (Meng & Zhao, 2019). First of all, when new students enter the school, students from different professional backgrounds and grades are recruited for different levels of training. In the early stage of training, students are allowed to enter the basic platform through individual mutual assistance, and through online educational activities, they can master basic knowledge and skills to have the theoretical foundation, cooperation ability and thinking method to participate in the competition. In the mid-term training stage, students are guided to combine the knowledge learned from participating in competitions, voluntarily form competition teams, and improve their professional abilities by participating in different science and technology competitions to promote the development of students' innovation and application abilities. In the later training, students' personal wishes will be combined to allow them to enter scientific research laboratories to strengthen students' comprehensive qualities further.

4.2.2. Build an Educational Team of Guiding Teachers

Society's demand for comprehensive talents is gradually increasing, and the requirements for participation in competitions such as the "Challenge Cup" are getting higher and higher. In order to adapt to the development of the times, colleges and universities need to focus on improving the abilities of professional instructors under hybrid competitions so as to create Good guidance and education teams (Snart, 2010). First, pay attention to the improvement and implementation of the employment system. In order to adapt to the era of quality education and achieve the purpose of establishing educational teams, colleges and universities need to focus on the principles of relative stability, the combination of full-time and part-time students, and reasonable mobility, and learn from successful cases of teacher training in other schools to explore and establish a backbone that meets the actual situation of the school. The management model of the teaching team with a double-layer structure of first layer and mobile layer allows more teachers with excellent abilities and strong awareness of educational innovation to participate in the guidance of college competitions. Second, an online training platform should be created to guide students in their competition work. The online training platform is divided into the following sections: The glorious teacher section.

Among them are mainly the subject leaders trained by the online studio, the deeds of outstanding members, and the development plans of some members so that more students can understand the teaching concepts and methods of outstanding members and achieve a certain publicity effect. It can play a certain guiding role when planning professional development. Secondly, the competition and communication section. This section is mainly aimed at members' learning and research. Through an online communication platform, teachers can discuss teaching issues, research projects, etc., so studio members can learn, think, and think and share. Secondly, analyze the column in depth. Notify competition information and relevant standards promptly to ensure the smooth development of subsequent related work (Hitt, Keats, & DeMarie, 1998). Third, formulate a mid-to-long-term competition guidance plan based on teacher feedback. Colleges and universities need to focus on the rules of teachers' teaching and scientific research and use hybrid teaching and research methods to arrange teachers to guide students' competition work in an orderly manner. In this way, teachers' educational value can be brought into play, and students can also be given a certain research space, thereby improving teacher guidance.

4.3. Development of Mixed Competition Activities

4.3.1. Publicity Stage

During the publicity stage, relevant work can be completed with the help of the interactive functions of the online platform. Use online platforms to create event introductions, document notifications, case teaching, and other sections to give students a novel participation experience. Online platforms can also imitate popular domestic platforms' barrage and message functions so that students can discuss the competition. In this way, the purpose of publicity can be achieved and more students can be attracted to participate in the competition (Chapman, 1981; Hemsley-Brown & Oplatka, 2006). At the same time, school staff also need to actively refer to students' suggestions and feedback, adjust the content and form of the publicity section promptly, and ensure the implementation of relevant work.

4.3.2. Announce Plans and Standards for Online and Offline Competitions

First of all, publish the competition plan on the college competition website so that colleges and universities participating in the online competition can do pre-selection work and publish the application notice and online

participation methods; for schools that have difficulty participating in the online competition, they can apply to the competition organizing committee to transfer the competition area After the relevant departments approve the application, you can transfer to other universities participating in the online competition to participate in the competition. Secondly, the standards for online competitions should be announced. The general competition process, competition organization, and competition environment are among them. Colleges and universities combine these contents to pre-select student competition groups, analyze competition standards, etc., so as to prepare for the competition scientifically. Finally, the game time should be announced. Online games need to be transparent and can be broadcast live.

4.3.3. Instruct Teachers to Carry out Online and Offline Training Activities

With the support of new technologies, professional teachers carry out relevant training and education activities around competition standards and pre-selected students (Chapman, 1981; Hemsley-Brown & Oplatka, 2006). In online training, the competition theme can be made into self-study micro-courses, project standards, project requirements, and other teaching materials and integrated and uploaded to the class learning website to allow students to complete learning tasks (Liu, 2022; Smyrnova-Trybulska, Morze, & Varchenko-Trotsenko, 2022). After that, students complete the learning tasks under the guidance of the learning process and leave their doubts about learning. The author combines the platform's recording function to integrate students' doubts about learning for offline teaching activities carried out smoothly. When selecting online education content, we must also choose knowledge conducive to students' comprehensive development to ensure training effectiveness.

In this way, through the effective implementation of online training activities, students have a new understanding of the competition projects, and their independent learning and cognitive abilities can be improved, which is conducive to teachers' offline targeted guidance. In offline training, the instructor mainly provides targeted guidance based on the students' online learning details. This training can be arranged after the initial team registration and before the school's primary election, using the after-school time to focus on training the students who signed up for the team (See, Gorard, & Siddiqui, 2017; Siddiqui, Gorard, & See, 2019). In training, it is necessary to focus on cultivating students' basic knowledge and skills. It can simulate situations similar to competitions, let students practice around projects, and promote the development of students' professional abilities and literacy. Through a mixture of online and offline methods, training objectives can be further achieved and ensure the effective development of relevant work in the future. It is worth noting that students should also cultivate a good mentality during training so that they can perform steadily in offline and online competitions.

4.4. Incentive mechanism and evaluation management

First, evaluate management. Traditional course teaching evaluation mainly involves teachers scoring students based on their attendance, basic performance, grades, etc. The relatively small amount of evaluation content makes it difficult to reflect students' deficiencies in project completion fully. From this point of view, In the new educational background, teachers should improve the evaluation mechanism and use a more comprehensive evaluation system to enhance students' learning initiative and help students discover their shortcomings more comprehensively. First, evaluate the students' online learning situation, such as the actual learning tasks, learning time, etc., and urge students to participate in the learning process. Second, offline learning situation. In offline teaching, teachers will pay attention to the introduction of effective teaching methods to improve the teaching effect effectively. Focusing on this content, teachers evaluate students' cooperation, participation enthusiasm, research results, etc., and record this content.

Third, comprehensive practical results. The theory also needs to be verified in practice. This content is the main reflection of students' overall learning situation. Teachers need to comprehensively inspect this link so that subsequent training can be targeted and give full play to the application value of mixed methods (Brookes, 2005; Matthews & Sammons, 2004). Secondly, the establishment and improvement of incentive mechanisms. Schools and secondary colleges need to introduce corresponding reward programs, which can incorporate the work of the competition director into the performance appraisal results, convert the different educational tasks set by different levels of competition into performance allowances, and provide teachers with certain motivation rewards. For participating students, we can reward them through bonus awards and equivalent credit conversions to build student confidence.

5. Conclusions

With the advent of the big data era, my country's higher education teaching model has become diversified and globalized, and more institutions are actively preparing or have already integrated MOOCs, micro-classes, etc., into the traditional education model. Among them, hybrid teaching, as a new teaching form, can combine the advantages of traditional teaching and online teaching, use educational resources to improve educational effects, and apply it in the "Challenge Cup" competition activities in colleges and universities, which can promote the development of related work. At the same time, how to use new methods to encourage college students to participate in competitions actively and

how to build a scientific and systematic organization and management model for college student competitions are currently contents worth exploring and researching in colleges and universities. The author believes that online and offline competition activities are effective. It is necessary to start from the problems existing in the competition, combined with the construction of the competition teacher team and the construction of hardware platforms, and fully carry out reform and practice.

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