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# APPLICATION AND EFFECTIVENESS OF EEMC'S "SUPER STAR LEARN" PLATFORM IN THE COLLEGE'S "BASICS OF PHYSICS" SUBJECT TEACHING

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**Abstract.** This study examines the application of the "Super Star Learning" platform developed around EEMC in the teaching of the subject "Basics of Physics" at the College and the effectiveness of the implementation of the "new model of blended online and offline teaching".

**Keywords:** education, technology, communication, modeling, physics

*Introduction to the "Complex" platform*

Platform functions and features. This is an electronic learning tool "Super Star Learn" widely used by Chinese universities and higher education institutions. Teachers and students can use the web page or its APP to log in to the mobile learning platform and achieve data exchange. The student port mainly includes the theoretical study of the course, practical training for exams, independent testing of the question bank, live media room for course resources, and electronic textbook download center, these modules (fig. 1.1). The software possesses features of digitalization, a sleek and attractive interface, user-friendly navigation, and customization [1]. It supports mobile learning well.

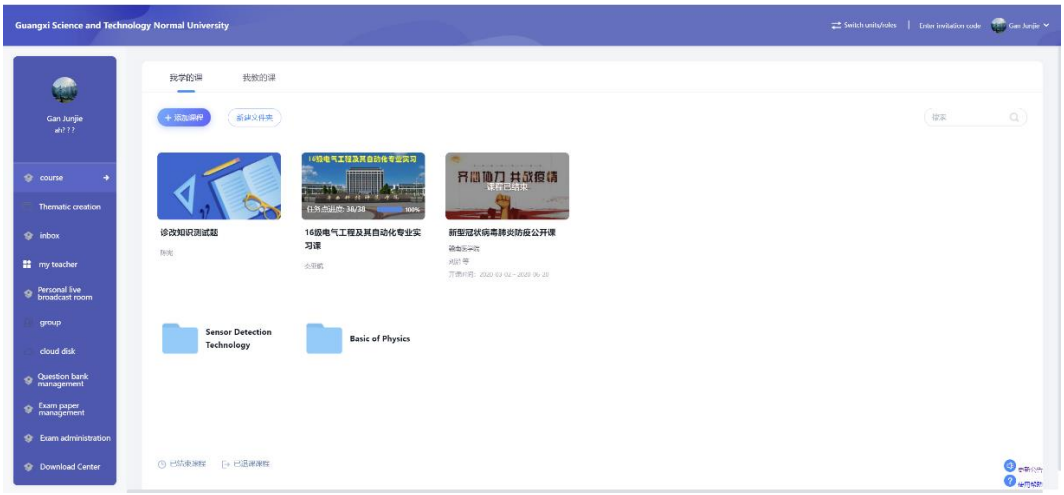


Figure 1.1 – Student Port Interface

The current status of the use of the complex. It was found that since its release, it has had 50 million active teachers and students per month. more than 80 % of the

teachers and students use it for more than one hour per day (tab. 1.1). This study reports on the application and effect of the subject "Fundamentals of Physics" in Sichuan Culture and Media Vocational College in EEMC.EEMC adopts the website form and APP form, combining with actual classroom teaching to form a new mode of online and offline hybrid teaching. It not only integrates teachers' teaching tests, multiple file formats and modules, but also contains rich live room teaching resources and e-learning materials, which ultimately plays a great role in improving the quality and efficiency of subject teaching [2].

Table 1.1 – Distribution of usage time of “Super Star Learn”

| **Length of use** | **< 1 hour** | **1~3 Hours** | **> 3 Hours** |
|---|---|---|---|
| **User ratio** | 24 % | 57 % | 19 % |
| Data source: “Super Star Learn” user usage report (2023) | | | |

*Application in classroom teaching*

Practice of the new “Complex” teaching model. Teachers can provide instructions for students to preview before class, discuss during class, and review after class in order to implement the flipped classroom model. Students can access learning content through the app at any time and from anywhere, without being limited by time, space, or location. In order to fully verify the teaching effect of the new teaching model, this study designed a set of controlled experiments. Take the teaching of “Conservation of Angular Momentum of a Rigid Body Rotating About a Fixed Axis” as an example [3]. Group A (3 classes) using the new teaching model was named “Experimental Class”. Group B, consisting of 3 classes, is referred to as "Normal Class" when utilizing the traditional teaching model. The results indicate that student participation significantly increased in the “Experimental Class” following the implementation of the “Super Star Learn APP” platform compared to the “Normal Class”. The number of “High Participation” (more than 60 %) is significantly more in “Experimental Class” than in "Normal Class" (fig. 1.2). The histogram data provides a clear visual representation of the variance in “Participation” distribution in the “Experimental Class” beforehand and post experiment (fig. 1.3).

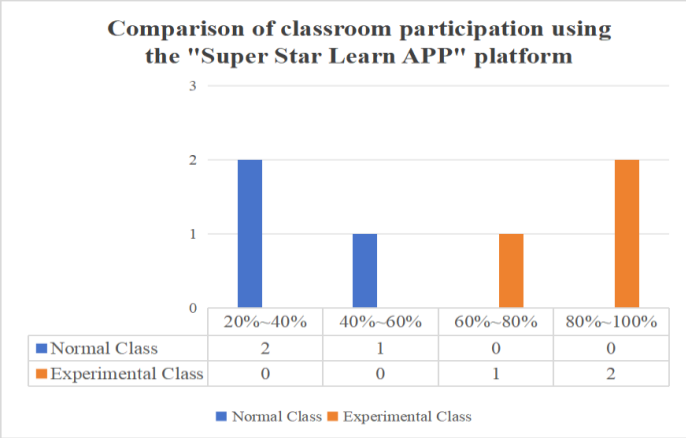


Figure 1.2 – Practical teaching situation

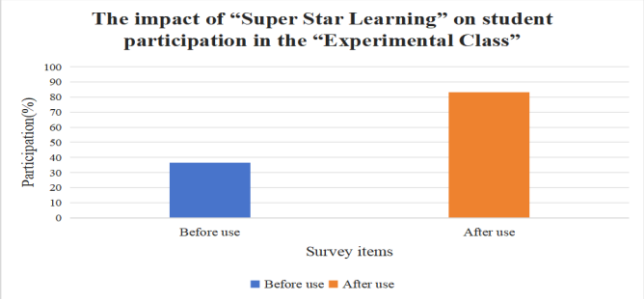


Figure 1.3 – "Participation" situation of the experimental class

*Application performance feedback*

To assess the impact of the "Super Star Learn" in educational settings, this study conducted a questionnaire survey among college students and teachers who utilize the platform, resulting in 1,543 valid responses (776 from students and 767 from teachers). The findings are as follows. 95 % of teachers believe that "Super Star Learn" can help achieve the sharing of high-quality teaching resources, and 87 % of teachers believe that it can improve students' learning initiative (tab. 1.2).

Table 1.2 – Teachers' evaluation of the application effect of "Super Star Learn" (multiple choices)

| Options | Proportion |
|---|---|
| Sharing of high-quality teaching resources | 95% |
| Improve students' learning initiative | 87% |
| Easy to arrange and mark homework | 75% |
| Expand teaching time and space | 82% |

*Conclusion*

Through the application and methodological synthesis of the e-learning tool teaching mode, this study finds that this mode can better serve the teaching of the subject "Physics Fundamentals" in Sichuan Culture and Media Vocational College. The use of this emerging teaching tool has been proven to be effective in increasing students' classroom participation and improving teaching results.

**Table of contents:**

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