Effective Application of Cloud Platform in Classroom Online Teaching

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ABSTRACT

Since the outbreak of the COVID-19, offline education has been severely affected worldwide. The use of Cloud Class in education has created an entirely new educational system. However, while it brings great opportunities for development of educational and teaching reform, there also remains challenges. The paper aims at analyzing the application of Cloud Platform in online education, and then probes into the existing problems. Finally, the article will propose some countermeasures targeting of issues to improve the effective application of the Cloud Platform, hoping to give some inspiration and reference to the online educators and researchers.

Keywords: Online education, cloud platform, effective application, countermeasures

INTRODUCTION

A sudden new global health crisis forced schools in 195 countries to close, preventing 1.58 billion students from returning to school in 2020. Facing the separation of teachers and students caused by COVID-19, Cloud Education system strongly supports global education through integrating traditional digital resources through a virtual cloud-based management system. According to the Mobile Internet Report 2020, in the Face of the Epidemic, the number of online education users nearly doubled in March 2020. Such a large-scale online education campaign is not only the world's largest information infrastructure upgrading project but also the largest information technology teaching social practice. The paper is going to work on how to coordinate teachers, students and platforms, which are the three most important elements in online teaching, to realize the organic integration of artificial intelligence and education, thus bringing maximum benefit of Cloud Platform.

MODE OF APPLICATION

CLOUD LEARNING

The cloud uses the web to build a virtual classroom, where students can not only log in to acquire a great deal of learning materials and share their learning experiences with classmates, but also break the limitations of time and space to interact with teachers so that they can solve problems in time.

Compared to traditional entity class, which still rely more on teachers speaking, especially in China, often ignoring students' interests or even their boredom, Cloud Platform precisely creates a space for students to learn on their own. Teachers choose the form of uploading the learning materials to Cloud Platform and then informing students to select and learn, in which process students can grasp the progress and content according to their individual level of knowledge. When they feel that there are difficulties, they can repeat several times. Otherwise, pass by.

CLOUD TEACHING AND RESEARCH

Not only can students establish individual learning space in the Cloud Platform, but can teachers. They use it as the center to link to other teachers and establish an online teaching and research circle. Compared with traditional offline forms, which require teachers to go to the same place collectively and carry out activities with limited groups within limited time, teaching and research in Cloud eliminates the limitation of time and space and defuses the isolated island of educational information. With the powerful information processing and

storage capacity of Cloud Platform, teachers' achievements can be properly preserved as well as the efficiency and quality of activities can be greatly improved. Furthermore, it is crucial for teachers to publish individual dilemmas through the Cloud Platform to seek help from all, which transforms personal problems into public ones and enables them to sum up their experiences in exchange so that they could promote sustainable development of their personal growth.

CLOUD EVALUATION

When we generate a transaction on a shopping site, we often find that next time we log in, the platform automatically recommends the same type of products. It suggests that every time we search online, we leave evidence and get recorded. Education Cloud Platform can use data to track educational performance likewise. Whatever activities learners participate in, it clearly reflects their interests, learning status and communication dynamics. This data can be used as the basis for teaching evaluation. Besides, direct evaluation in the message, chat rooms or other modules is also a key indicator, of which form includes self-appraisal, mutual evaluation, third party evaluation, etc. Cloud Evaluation realizes the multiple and diverse assessments so that both teachers and learners can measure their own ability in real-time. One point has to be made is that the long-term effectiveness of tracking recorded data via the Cloud Platform is more stable than that of human-made recording, and the data could be recorded and manipulated whenever learners are around.

PROBLEMS AND CAUSES

THE EFFECTIVENESS OF LEARNING IS NOT GUARANTEED

Traditionally, teachers always set clear goals and ask students to complete according to a definite plan. Teachers' supervision plays an irreplaceable key role in this process. In Cloud Platform, however, learning status and content need to be handled by students themselves in most cases. They need to set manageable goals, formulate plans and choose appropriate content, all of which teachers used to be as perfectly arranged and delivered to them as gifts. Unfortunately, students can really implement and absorb very little knowledge without the guidance and supervision of teachers. Furthermore, all sorts of resources on the internet are mixed, there is countless information that tempts students all the time and you can never imagine how deadly those entertainments are to them. Consequently, it's not surprising that online education leads to low learning efficiency.

LOW TEACHER-STUDENT INTERACTION

Psychological research shows that academic emotions(proposed by Pelcrun, 2002) as a non-intellectual factor closely related to the teaching and learning process. Teachers pass the positive message to the students through their eyes, body movement and the pronunciation intonation in physical classroom. Students will also pass facial expressions and gestures to

let the teacher grasp whether they have difficulties recognizing in time. These interactions may seem small, but they play an important role in building good teacher-student relationships and in the development of students' physical and mental health, which online education can not do. Students log to the Cloud Platform, often in the face of a screen alone. Students encounter difficulties when teachers can not timely perceive and then give them care. If always the case, they will lack a sense of existence and evolved into unconcentration, loss of interest in learning.

LOW ACHIEVEMENT OF TEACHING OBJECTIVES

Teaching is a purposeful rational behavior and the goal indicates the expected results of learning. Separation of teachers and students online greatly weakens the influence of teachers. Therefore, teachers need to make a more perfect design to guarantee quality of teaching. They need to consider: learning content, presentation, how to carry out the study and the support tools that students may need. In practice, however, teachers tend to only do the first two steps. They always end up uploading traditional content in the form of power point courseware, lecture notes, video tapes and so on, providing simple tasks for students to self-study. What they don't realize is that students trained in traditional classrooms have long been accustomed to accepting ways of teaching and are less able to learn on their own. It is a fundamental mistake that draw the equal mark between self-study and the independent study.

CAUSES

First, students are not self-sufficient. Data from an online education survey conducted in China during the epidemic showed that 43.1% of students had done nonacademic tasks during online classes, 61.1% of the parents said their children were not focused enough on their home online learning and 74.81% of parents did most of their homework on reminding children of learning. It strongly suggests that students' participation in online learning, which requires self-organization and management, falls far short of the expected.

Secondly, the teachers' idea of transformation is not in place. Cloud Platform provides them with abundant educational resources and convenient teaching tools, but does not leave enough time for them to learn how to create and organize online courses effectively. Teachers can not adapt to the changing roles completely at once, which kind of ambiguous role positioning results in the lack of teaching service.

Third, the network environment is complex. The new generation of learners in mass information are more likely to be lost in the sea of information. Taking short videos for example, they stimulate their senses and nerves with the feature of diversity. Once the platform values on which information is published are misguided, its negative effects are magnified indefinitely.

COUNTERMEASURES

TASKS DRIVEN TO IMPROVE OVERALL EFFECTIVENESS

The so-called "task driven" is to take real problem oriented. Many educators emphasize the importance of learning in problem situations. Dewey put forward the five steps of thinking: context, problem, assumption, inference and test. Sawyer stressed that problem-based learning enables students to participate effectively in learning. It promotes the ability of students to translate knowledge into problem-solving and leads to a more coherent understanding.

Teachers should consciously design some problem-oriented tasks before embark on teaching so that students can feel the “call of goal”. In mathematics, for example, the teacher sets the goal transforming “finding patterns of changes” into "how to save paper”, such practical knowledge in life can motivate students to learn the knowledge needed to complete the task. For teachers, how to design problem-oriented task can be considered from the following aspects:(1) The problem can arouse interest, which is the intrinsic motivation to solve the problem; (2) Guide students to make hypotheses and encourage them to make bold conjectures based on their previous experience; (3) To organize students to make independent inquiry; (4) Provide the necessary supporting material, either in theory or practical tools; (5) Ask students to document and reflect on the problem-solving process.

INCREASING OPPORTUNITIES FOR INTERACTION

Constructivist theory emphasizes that learners should learn to collaborate with each other by associating their learning content with known objects and finding the meaning of constructions. As the constructor, teachers should organize collaborative learning and discussion. After considering the abilities of learners and difficulty of tasks, teachers set up study groups of 5-7 people online, with strong abilities students as team leader. Team-members discuss the teacher's tasks and team leaders collect and sort common difficulties among them. Or let the members take turns to be host organizing the activities so that everyone can fully feel their participation and value in class. Such collaborative form of learner centered complete the vision of making students become the real owners of the classroom, which not only stimulate students' enthusiasm for learning, but also enhance their sense of responsibility as well as the effectiveness of online education.

SUPPORT USING QUALITY ONLINE LEARNING TOOLS

Teaching is inseparable from tools, as is learning. *Top Tools for Learning 2021*, compiled by Jane Hart on the basis of the results of the 15th annual survey, was published globally on 1 September, 2021. Top 20 on the list: You Tube(same), Zoom(same), Google Search(same), Microsoft Teams(↑1), PowerPoint(↓1), Google Docs & Drive(↑1), LinkedIn(↑1), Twitter(↑1), Wikipedia(↑2), WhatsApp(same), Slack(↑6), Word(↓6),Canva(↑5),

Facebook(↓2), Excel(↓2), Google Meet(same), Google Classroom(↓2), Kahoot(↑6), Articulate(↑11), Mentimeter(↑6). You Tube, as we can see, is number one for six consecutive years, which means it's still an easy-to-learn video resource for users. Articulate rose 11 places and still remains the NO.1 for curriculum creation. Google Meet hasn't changed its ranking while Google Classroom has lost two places, but that's a negligible difference from its rise of 121 in 2020. Whatsapp is a chat tool and popular domestic alternatives include Wechat and Tencent QQ. It is not hard to see that the TOP20 tools, which emphasize collaboration and interaction, provide strong support for online learning. Additionally, distance education should provide relevant evaluation management tools, which not only helps learners to conduct self-assessment, but provides more objective and comprehensive data feedback to educators and managers. In a word, online education services can not be separated from the support of various learning tools. Thinking about how to provide better tools for learners will greatly promote the efficiency of online education.

CONCLUSIONS

With the support of artificial intelligence and network information technology, online education has become an important form and direction of future education. Teaching methods, teacher-student relationships, learning styles, educational evaluation and reflection are all changing gradually under a brand-new educational order. The paper discusses the application and advantages of cloud platform based on online education under the internet plus environment. It makes teaching forms more diverse and learning styles more individualized. Meanwhile, online education puts forward higher requirements that teachers should adapt to the new role of guide and organizer as soon as possible, learners should strengthen their personal learning management and Cloud Platform should provide effective teaching and learning support services. In a word, multi-researchers should work together to explore and practice in order to realize the deep integration of artificial intelligence and education.

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