

Brainstorming Strategies in Integrating Education System for Better Technology-Based Support Learning

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ABSTRACT

Technology-based support learning is very important since 21st century has a growth in transforming various skills on gaining knowledge, gaining experience in electronic technology and gaining learning process digitally. Learning and teaching is not a new challenge integrated education system. As per the learners need, technology-based learning can play different delivery methods and is classified into two types synchronous delivery methods and asynchronous delivery methods. In today's trend, there is a rapid change in education, tools which require training become technology and programs to knowledgeable workers in industry. Now a day, Technology-based learning in education system is facing few side effects like too much use of technology is leading to various security issues, face-to-face interaction issues, assessment issues, research gap, health issues like tensions and learning approaches. As the learning skills and teaching styles can improve education system effectively, most of the technological tools or brainstorming strategies help to contribute new learning skills and teaching styles in integrating education system for better growth in today's real life. Based on today's growth in curriculum most of the universities, the technology-based support learning system should improve with no side effects in primary education, secondary education, undergraduate and post graduate programs to students or learners. So, there should be focus more on brainstorming strategies in this integrating education system by introducing a framework based on current strategies.

Keywords: Technology-based support learning, Synchronous delivery method, Asynchronous delivery method, Brainstorming strategies.

I. Introduction

Technology-based support learning is very important since 21th century and has a growth in transforming various skills on gaining knowledge, gaining experience in electronic technology and gaining learning process digitally.

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Education technology has changed the human aspects and changed the social order of our daily life [1, 2, 3]. Learning and teaching is not a new challenge integrated education system. There is no restriction for the usage of computers in this educational technology all over the world. Electronic whiteboards, digital cameras, digital television, electronic gadgets, etc., are allowing students to gain more knowledge by interacting with new programs and to improve various research aspects and also to improve various economic competencies from their own place. As per the growth of people, smart phones, mobile devices, use of computers, and internet are more accessible than the well-appointed devices like tablets, laptops [4, 5]. Integrating new technologies effectively is challenging as new technology- based learning is more projected significantly. Student engagement in technology- based support learning meets student expectations. Technology-based support learning programs includes different mode of delivery methods and different forms which includes digital online tools like e-mail, discussion on white boards in online and offline mode of delivery methodology [6, 7].

II. Technology-based support learning – integrated education system

The delivery methodology can be technology-based support learning by utilizing software and hardware tools to reach learners from long distance without any side effects. Based on the learning aspects and use of various technology can increase learning styles, learning solutions, and also learning results [8]. As per the learners need, technology-based learning can play different delivery methods and is classified into two types synchronous delivery method and asynchronous delivery method as shown in below figure 1:

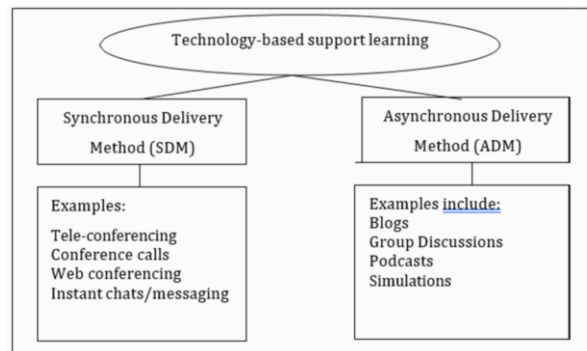


Figure 1: Technology-based support learning – delivery methods

Synchronous Delivery Method (SDM) is one of the technology-based delivery method that is occurred when learners meet at a particular point of time in online or offline classroom via phone link-up, Internet or satellite etc. This learning style includes conference calls in audio and video, broadcasted lectures, tele-conferencing from long distance learner to learner's desktop. As the cost of synchronous delivery tools are reduced, most of the upgraded tools have become user-friendly [9, 10]. But in Asynchronous Delivery Method (ADM), the learners need not occur at a particular point of time and also need not link to particular learning event. ADM includes self learning which includes computer-based or selfbased learning courses and the distance learners can use from their own places which avoids risks. This technology-based support learning system improves the education system with no side effects in primary education, secondary education, undergraduate and post graduate programs to students

[11, 12].

As the learning skills and teaching styles can improve education system effectively, most of the technological tools or brainstorming strategies help to contribute new learning skills and teaching styles in integrating education system for better growth in today's real life [13, 14]. Based on today's growth in curriculum most of the universities, the technology-based support learning system should improve with no side effects in undergraduate and post graduate programs to students. Technology-based support learning – integrated education

system includes brainstorming sessions is shown in below figure 2:

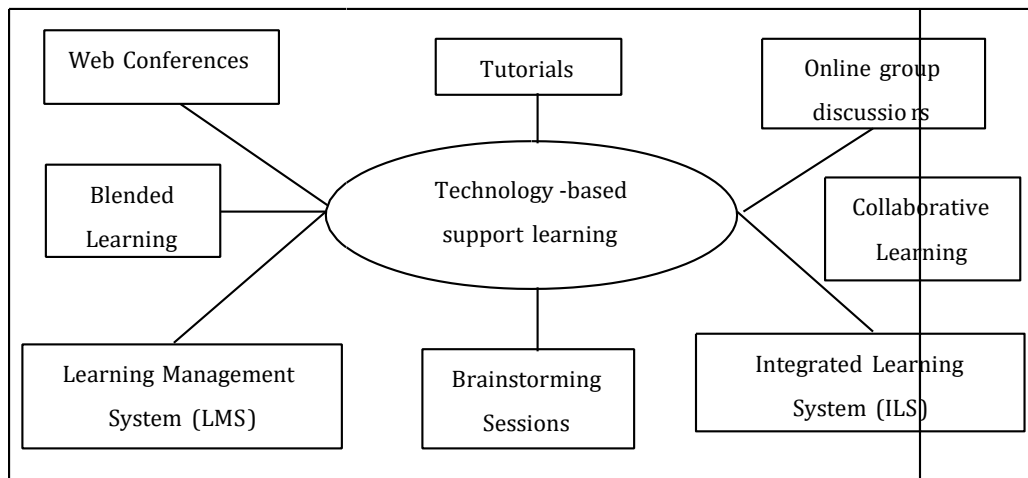


Figure 2: Technology-based support learning – integrated education system
Technology-based support learning – integrated education system depends on:

- Web conferences: It is synchronous online service technology-based support learning which supports live meetings, live training sessions, via an internet application and software's that is downloaded in computer or electronic device locally. It makes learners to ease-of-use, secured and improves the growth of long distance education, build relationships between experts to gain more knowledge. But still there is a lack in more number of features like record call, audience poll, whiteboard etc., to improve brainstorming sessions with new ideas innovatively.
- Tutorials: Is self-paced technology-based training support learning which allow learners to learn key aspects of learning via audio and video mode that are delivered on online. This learning allows learning to learn track wise or sequence wise which also includes quiz and ability assessment for their understanding.
- Online group discussions: It is self-moderated technology-based support learning which allows learners mainly to interact with each other from any specific location in online via audio and video mode for discussions, and allows posting important communication through messages among each other.
- Blended Learning (BL) & Collaborative learning (CL): It is self-explanatory technology-based support learning which captures learning objectives and lecture delivery within available resources. It is an traditional approach of online

learning which allows learners to interact face-to-face during their classroom training sessions.

- Learning Management System (LMS) & Integrated Learning System (ILS): It is integrated with a specific kind of technology-based support learning which includes more options like learner enrolment, marks attendance, content delivery to learners, progress report of learner, assessment results, identifies skill gaps of the learners, and handles multiple courses or material from various sources.

Based on the different Technology-based support learning methods, still there is a lag in the system and should improve with no side effects in undergraduate and post graduate programs to students. So, there should be focus more on brainstorming strategies in this integrating education system by introducing a framework based on current strategies [15].

- Brainstorming Sessions: Some learners may face security issues or esitate or feel inconvenient to speak in group discussions with peers, may not understand the learning sessions clearly in web conferences, online group discussions, Blended Learning & Collaborative learning as they don't have much features also. So brainstorming sessions is one of the best ways to help the learners feel engaged during the discussion process. It basically ensures exact way to the learners to brainstorm their exact goal during the session, and then clarifies their brainstorming input the learners are focusing on and trains learners to choose best brainstorming method to achieve their goals for their particular needs. It also involves e tire team in this approach by making the learners to write down their thoughts and speak so that the learners can reduce their tension and clarify their doubts clearly. Education system improves by inviting experts or peers based on learner's goals, purpose and understanding the process in experimental manner by giving hands-on lectures in brainstorming sessions. This facilitates learners to gain more knowledge in experienced manner and lead the process towards their plans and goals of the learners have in their mind.

III. Conclusion

Increase in information and knowledge gain by visualizing difficult concepts is challenging for students to the use of latest technology. Experts agree with the integration of technology and learning of various tools should support the curriculum with professional development. For the better future employment, student should have capability in problem-solving, develop their critical thinking, improve communication skills, engage in various learning sessions like hands-on sessions and should work together with peers. Brainstorming session technology- based learning in education system reduces facing few side effects like too much use of technology is leading to various security issues, face-to-face interaction issues, assessment issues, research gap, and health issues like tensions and learning approaches. The below figure 3 shows the survey results from learners and students:

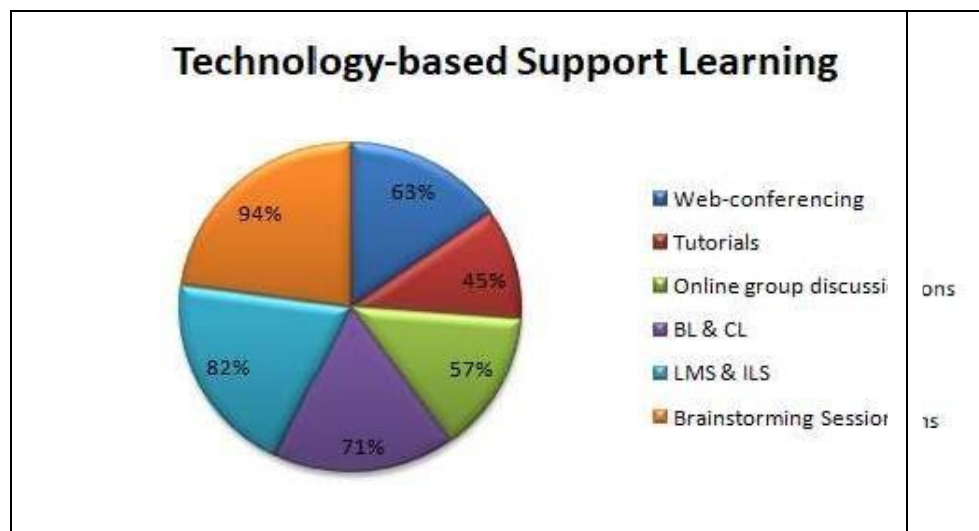


Figure 3: Technology-based support learning – Survey results

As per the survey collected from learners and students, by considering parameters (like Strongly agree, Agree, Disagree), most of the learners and students strongly accept brainstorming sessions as better technology-based support learning in this integrated education system.

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