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# **Effectiveness of Use of Spoken Tutorial Implementing ICT based Learning for Computer Science Students**

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**ABSTRACT:** In recent education system, development can be possible through effective learning. Creating interests among the students is the major challenge in higher education. In such situation, use of ICT tools, blended approach, use of Google classroom, Moodle, MOOC, online tutorials are proving effective to increase performance. Spoken tutorial forum is friendly online discussion forum. It is the initiative of the “Talk to a Teacher” project of the National Mission on Education through Information and Communication Technology, started by MHRD, Government of India. Learning is more effective when animation and narration are used together. We experimented this in our School of Computer Sciences, KBC North Maharashtra University, Jalgaon. We offered Spoken Tutorial as audit course. This paper describes effectiveness of use of spoken tutorial implementing ICT based learning for computer science students.

**KEY WORDS:** ICT Based learning, Spoken Tutorial, Computer Science, Interest in learning

## **I. INTRODUCTION**

In recent higher education system, in different institutes, colleges, and universities it is identified that students avoid and not take interest in learning process. To make the process of learning more effective use of ICT tools for teaching, teaching with blended approach, use online classrooms should become part of education system. This can develop the education system through effective teaching. Spoken tutorial forum is friendly online discussion forum. It is the initiative of the “Talk to a Teacher” project of the National Mission on Education through Information and Communication Technology, started by MHRD, Government of India. Learning is more effective when animation and narration are presented offered at the same time. We experimented this in our School of Computer Sciences, KBC North Maharashtra University, Jalgaon. We offered Spoken Tutorial as audit course in syllabus. In this paper, section II gives literature study. Section III explains methodology, section IV provides analysis of the results, and section V concludes about the effectiveness of use of spoken tutorial implementing ICT based learning for computer science students.

## **II. LITERATURE SURVEY**

Literature survey done gives intuition that education and process of learning improves with the application of ICT based approaches.

Mayer Richard E in 2019 demonstrated the progress made by value-added research, cognitive consequences research, media comparison research, conventional research. They addressed question which game features promote learning, whether people learn better from games [1].

Godlewska Anneet. al. in 2019 explained how an active blended learning class can engage actively a large class of 400 size. They state that the major difficulty to the such development and maintenance is the conventional culture of the academic institutes [2].

Peñalver Elena Alcalde in 2019 described the methodology of project-based learning. Author implemented this methodology for undergraduate program. They found that this methodology successful way to give knowledge to the field of tourism and advantages of group learning [4].

Segni Belachew Beyene and L. Manjula Davidson in 2019 studied to access the trends and challenges of technology integration in to ELT classes. They have collected quantitative data by preparing questionnaire and taking feedback from teachers. They identified that teachers remain stick to traditional ways since they do not get proper time plan for



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preparing web-based materials and learn the ICT based technologies. Teachers can't plan well since they remain busy in teaching, doing research, performing academic and examination activities [5].

Tseng Sheng-Shiang and Hui-Chin Yeh in 2019 performed experiment on English as a Foreign Language (EFL) teachers and students to improve Computer-Assisted Language Learning (CALL) competencies in project-based learning. They found improved results from experiment [6].

Blume Carolyn in 2019, use of digital game-based language learning (DGBLL) is tested for higher education students and simultaneously for school students. They found positive engagement in school students while low response from higher education students [7].

Aksoy Mehmet Emin et. al. in 2019 experimented the effect of web-based learning in paediatric basic life support training. Their results highlight that video-based training is effective, time saving, and giving more opportunities to learners [8].

Batool Hijab et. al. in 2019 reviewed about advantages, disadvantages, and challenges handled while moving to online assessments from conventional one in medical education [9].

### III. METHODOLOGY

This section describes implementation of ICT based learning for computer science students at the School. The School runs three basic courses such as master's in computer science, master's in information technology, and master's in computer applications. The proposed approach has added use of spoken tutorial to these three courses as an audit course. Spoken tutorial forum is friendly online discussion forum. It is the initiative of the "Talk to a Teacher" project of the National Mission on Education through Information and Communication Technology, started by MHRD, Government of India. The syllabi of these course give focus on variety of subjects such core of computer science, practical and skill-based subjects, industry-oriented courses. To encourage the students for self-study and experience video-based learning school offered spoken tutorial as an audit course after every semester in a year. This provide a way to students to select any one course at a time offered by IIT Mumbai. Advanced courses are generally recommended to the students by course coordinators at the School.

### IV. ANALYSIS OF RESULTS

The method of use of spoken tutorial is applied on all three courses as described in section III. The batches of 12 to 15 students are formed. A batch consists of group of all students who opted spoken tutorial similar course. The student's performance of the selected course is measured from the results generated via online examination conducted by spoken tutorial forum. After the completion of the course, feedback about the audit course is collected from students. The proper questionnaire is prepared for each selected course. This questionnaire is given to students to fill via goggle forms. The answers of questionnaire are scaled from 1 to 5 with options strongly agree, agree, not sure, disagree, strongly disagree. The feedback is collected for 220 students. The questionnaire prepared focuses on four important aspects such as Learning Value, Applicable Value, Content Covered, and Quality of Content Delivery. From received feedback data, information is extracted. The information is classified for the four aspects under categories need to improve, satisfactory, excellent. Finally, the class wise group score is computed as shown in following table 1.

**Table 1: Class Wise Group Score**

Class	Aspect Focused	Group Score	Inference
<b>Master's in Computer Application</b>	Learning Value	28.95	Excellent
	Applicable Value	25.95	Excellent
	Content Delivered	27.02	Excellent
	Quality of Content Delivery	25.65	Excellent
<b>Master's in Computer Science</b>	Learning Value	29.02	Excellent
	Applicable Value	21.09	Satisfactory
	Content Delivered	26.65	Excellent
	Quality of Content Delivery	27.09	Excellent
<b>Master's in Information Technology</b>	Learning Value	19.98	Satisfactory
	Applicable Value	19.78	Satisfactory
	Content Delivered	25.98	Excellent
	Quality of Content Delivery	26.8	Excellent

Graph in given Figure 1 makes class wise comparison of four aspects.

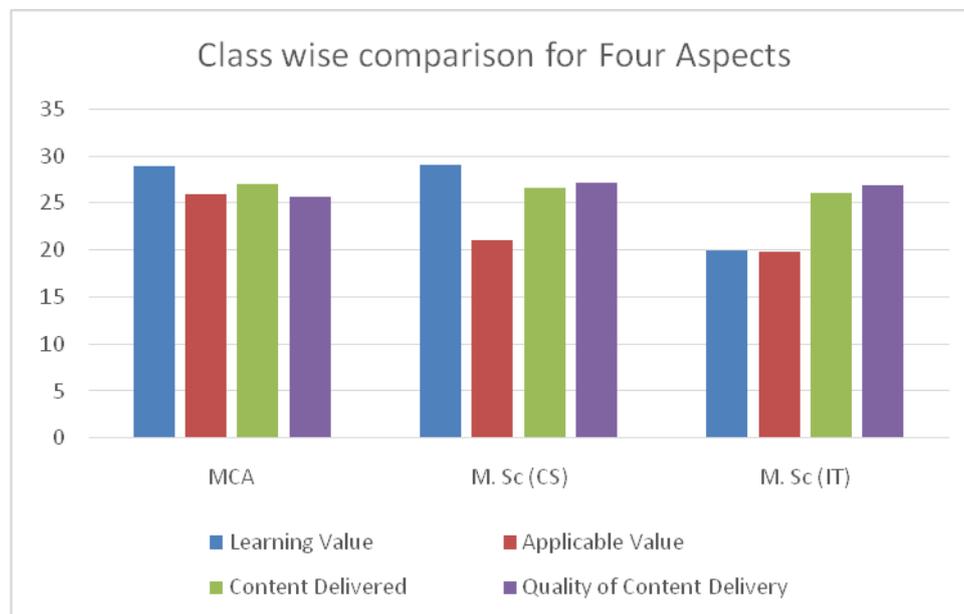


Figure 1. Class wise comparison for Four Aspects

### V.CONCLUSION

This paper describes effectiveness of use of spoken tutorial implementing ICT based learning for computer science students. It is observed that with respect to the aspects learning value, applicability, content and its delivery the use of spoken tutorial is excellent for MCA students. For students of degree master's in computer science and information technology application value of the course is satisfactory. It is observed that learning is more effective when animation and narration are used together.



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## REFERENCES

- [1] Mayer Richard E, "Computer games in education", Annual review of psychology 70 (2019)pp: 531-549.
- [2] Godlewska Anne, Wanda Beyer, Scott Whetstone, Laura Schaepli, John Rose, Breah Talan, Sean Kamin-Patterson, Christopher Lamb, and Melissa Forcione. "Converting a large lecture class to an active blended learning class: why, how, and what we learned", Journal of Geography in Higher Education (2019): 1-20.
- [3] Railsback, Steven F., and Volker Grimm. Agent-based and individual-based modeling: a practical introduction. Princeton university press, 2019.
- [4] Peñalver Elena Alcalde, "Project-Based Learning in a Virtual Classroom: The Case of English for Tourism Communication", In Teaching Language and Teaching Literature in Virtual Environments, pp. 227-237. Springer, Singapore, 2019.
- [5] Segni Belachew Beyene and L. Manjula Davidson, "Trends and Challenges of Technology Integration in ELT Classes.", IJELLH (International Journal of English Language, Literature in Humanities) 7, no. 1 (2019): 30-30
- [6] Tseng Sheng-Shiang and Hui-Chin Yeh, "Fostering EFL teachers' CALL Competencies Through Project-based Learning.", Journal of Educational Technology & Society 22, no. 1 (2019): 94-105.
- [7] Blume Carolyn, "Games people (don't) play: An analysis of pre-service EFL teachers' behaviors and beliefs regarding digital game-based language learning.", Computer Assisted Language Learning (2019): 1-24.
- [8] Aksoy Mehmet Emin, Feray Guven, Mehmet Erhan Sayali, and Dilek Kitapcioglu, "The effect of web-based learning in pediatric basic life support (P-BLS) training.", Computers in Human Behavior 94 (2019): 56-61.
- [9] Batool Hijab, Asim Mumtaz, Saadia Ali, and Akhtar Suhail Chughtai, "Positive trend shifting to Online Assessments: A Review of using Socrative in Medical College, its Advantages and Challenges faced.", Journal of Medical Education 17, no. 3 (2019).
- [10] Dawson Phillip, Michael Henderson, Paige Mahoney, Michael Phillips, Traci Ryan, David Boud, and Elizabeth Molloy, "What makes for effective feedback: Staff and student perspectives.", Assessment & Evaluation in Higher Education 44, no. 1 (2019): 25-36.
- [11] Stephenson John, ed. "Teaching & learning online: new pedagogies for new technologies", Routledge, 2020.