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Improving Accuracy Enhancing Student Engagement with Technology

L. Venkateswara Reddy and Dr A. Rama Mohan Reddy

Department of Computer Science and Engineering,
Rayalaseema University, Kurnool,
Andhra Pradesh, India.

Abstract

New and exciting applications of technology-enabled learning validate that it has the power to dramatically improve achievement, educational outcomes and retention. Yet the cost of technology, its rapid evolution, and the special knowledge and skills required of its users pose substantial barriers to contextualized learning. Even without educational technology, classrooms are in information overload putting students and instructors on the brink of drowning in data. Immediate innovations in, pedagogy, curriculum, and assessment must be coupled with the usage of instructional technology such as web-based learning, and online teaching and learning in order to produce improvements in the educational outcomes. Without substantial and extended professional development in the innovative models of teaching and learning that instructional technology makes affordable and sustainable, many instructors and students will not use these devices to their full potential.

1. INTRODUCTION

social interactions among its subjects, which are heavily influenced by the language and the culture of the people involved8 . The pedagogical advantages of collaborative learning have been extensively analyzed over the last ten years. Its benefits are focused mainly on active learning and on in-depth information processing7 . The teaching models of collaborative learning have been systematically investigated for some time. Those are Knowledge Building, Progressive Inquiry, Knowledge Integration, Knowledge Creation and Social Theory of CSCL8 . These teaching models succeed in combining theory with practice through different applications. Designing a collaborative environment based on socio-cultural theories is a very difficult task. This is due to the profound differences in how learning theories have

been applied previously. In spite of this, a huge shift in this direction is observed, as one can see in the large number of collaborative learning environments available. The rapid development of internet technologies enabled the transformation of uses and practices, giving them an educational and pedagogical dimension and it has eventually led to this radical change. In light of this theory, technology is a component for supporting cognitive activity, a fact which has radically changed the way we perceive the use of Information and Communication Technologies (ICT) in the educational process9 . The main objective of research in collaborative learning is the focus in the great importance of collaboration between users as a way of processing ideas, conversation, justification and evidence. Is also very important to identify the reasons why collaborative tools, though numerous, are not yet fully exploited within formal teaching. Perhaps the in-depth exploration of traditional teaching, in relation to the globalization of knowledge and new technologies, should be continued10. Moreover, a proper approach of how to integrate and use technology in the classroom needs to be promoted. Culture and other special characteristics of nations complicate or facilitate the implementation and the assimilation of a collaborative environment, by setting new rules in each individual environment. We can, therefore, claim that since collaborative learning is based on knowledge sharing through group activities, there must be a common way of treatment of factors related to collaboration and to common language in order for CSCL to be effective. In addition, a general discussion on the ways that inspire participation and contribution of the members involved should be supported.

Table1: Summary of Levels of Learning With Technologies.

MacDonald, Atkin, Jenkins, & Kemmis (1977)	Recognition	Recall	Reconstructive understanding	Intuitive understanding	Constructive understanding	
Biggs and Collis (1982)	Prestructural	Unistructural	Multistructural	Relational level	Extended abstract	
Anderson and Krathwohl (2001)	Remember	Understand	Apply	Analyze	Evaluate	Create
Pozo and Postigo (2000)	Acquisition	Interpretation	Analysis	Understanding and organization	Communication or reconstruct	
Starkey (2011)	Doing	Thinking about connections	Thinking about concepts	Critiquing and evaluating	Creating knowledge	Sharing knowledge

Table 2. Classification Framework for Technology-Enabled Practice

Epistemic beliefs	Dualistic view	Multiplistic	Relativistic		Relativism	
Pedagogical beliefs	Developing computer skills and supplementing subject skills	Enrich existing curriculum			Facilitating new ways of learning	
Pedagogical practices with ICT	Teacher-Centered	Primarily teacher-centered	Mix-balanced	Primarily Student-Centered	Student-Centered	
Levels of learning	Doing	Thinking about connections	Thinking about concepts	Critiquing and evaluating	Creating knowledge	Sharing knowledge
Technological competency	Low		Medium		High	

2. METHODOLOGY

The proposed methodology consists following phases

Phase 1: Registration: In this phase the admin trainer and users are going to be registered

Admin is the main controller of total system. Trainers are used for conducting exams for students. Students should registers their names.

Phase2: Batch Division

In this phase we are going to divide the students into batches. There will be separate date for each batch. Batch consists 60 students .

Phase 3: Online test

Here we are going to provide a online exam for different batches with 50 questions and each question contain 1 mark.For this student and trainers should login with their credentials .

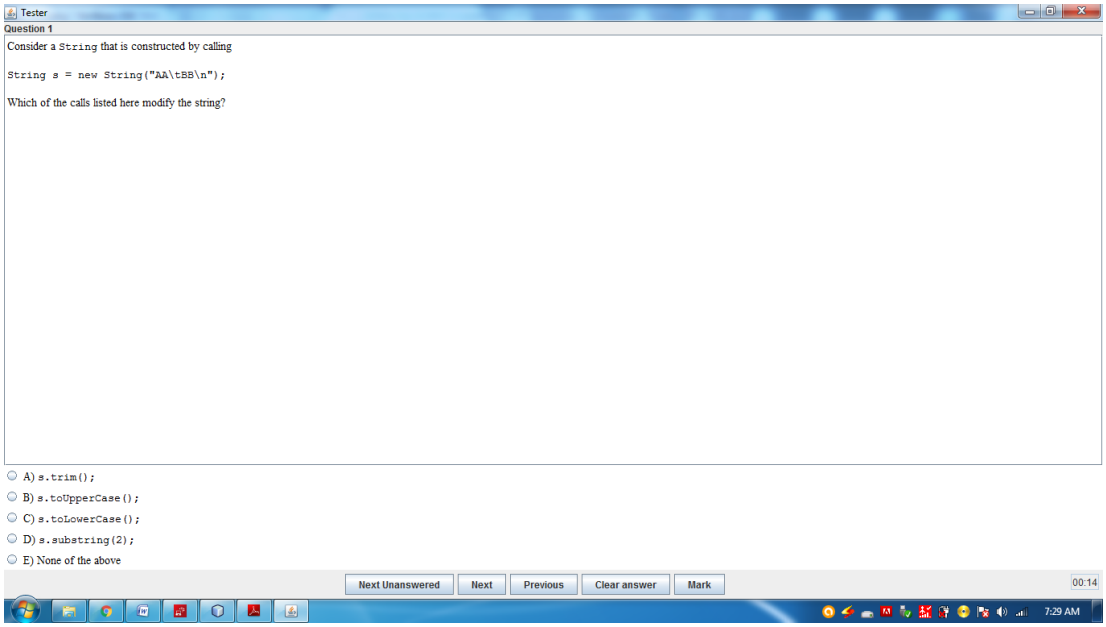


Fig 1 : Exam interface

As shown in fig1. It is example of java exam. Here question will be appeared and test is purely multiple choice questions. Here we are providing 5 options as a,b,c,d,e. we are providing buttons as next unanswered, next, previous, clear answer, mark.

Phase 4: results

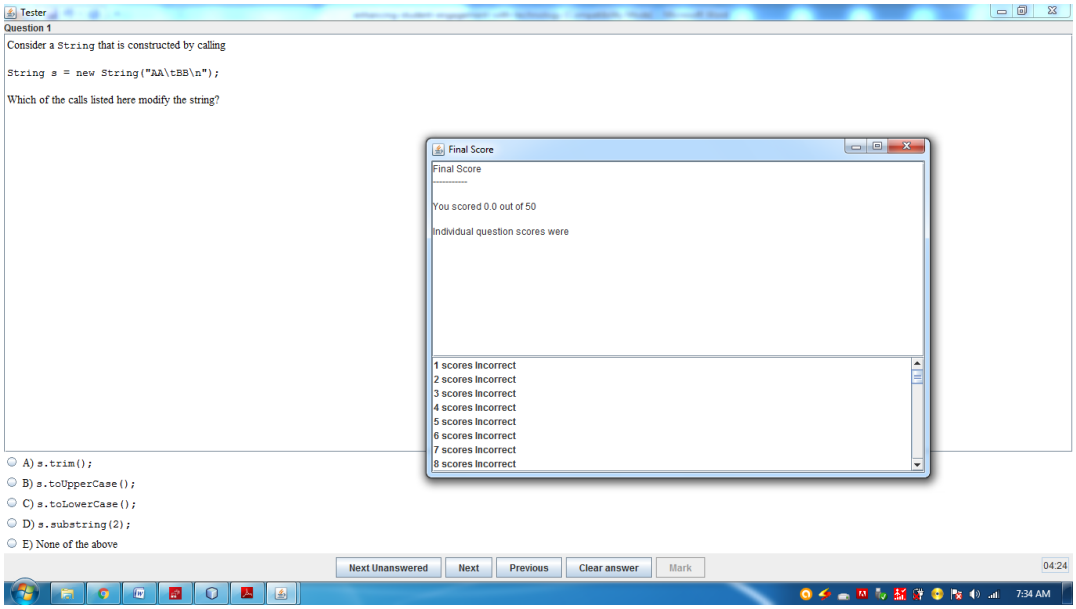
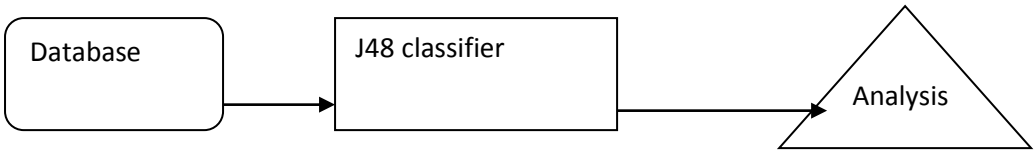


Fig2: results

After successful completion of exam student should click the mark button then the marks window will be appeared. It will be as shown in fig2.

Phase 5: analysis

In this we are going to analysis the test result with the j48 classifier. We will analyze the performance of student in terms of accuracy.



3. IMPLEMENTATION

The mission of the work is to focus on the student and instructor as a lifelong learner by providing mentoring, tools, resources, and facilities that enrich and support the integration of instructional technology into the curriculum. The Technology Learning Center is a multi-function resource and instructional support center for students and faculty providing instructional technology support. The Center hosts workshops and training designed to bring together faculty and other professionals to share expertise, explore innovations, and discuss the challenges of the integration of instructional technology.

We have used following trainers and students in our experiment.

Table1: Student details

student								
user_name	**course**	**batch_id**	**start_date**	**end_date**	**full_name**	**add**	**mail**	**phone**
anand	BE	1234	12/3/2007	12/3/2006	anan	asfdsa	sdfsd	dsfsd
anand1	BE	1234	12/3/2007	12/3/2008	anan	qeqwe	wrerwer	123456
Bb	javahey	ja01	1/4/2005	7/5/1931	bbbbbbbbb	bbbbbbbbb	asdf@dabba.com	2344234
cris	j2ee	1234	12/3/2007	12/3/2008	kishan dujari	Agra	cris@gmail.com	9898989898
kiran	java	ja01	12/3/2007	12/3/2008	kkk	kurnool	k@gmail.com	123456
parul	Jse	p001	3/23/2009	4/1/2012	Parul	Agra	wwwwwww	1234567
rani	ja01	5	12/3/2005	4/14/2005	rangarajan	garden	rar@yahoo.com	080234567
Satish	JSP	JSP007 sdf	12/5/2006	5/13/2006	Satish	Bangalore	satyadk@yahoo.co.in	99980165180
Shubham	java	b001	5/10/2009	5/11/2009	Shubham Agarwal	Agra	shubham@yahoo.com	123456
venkatesh	j2ee	ja02	12/3/2005	4/14/2005	G.venkatesh	wilson	venkygit@yahoo.com	08023567890

Table 2: Trainer details

trainer				
Trainername	**Fullname**	**address**	**emailid**	**phoneno**
Adisekhar	p.adisekhar	anantapur	aman@gmail.com	123456789
Singhal	amit singhal	Agra	amit@rediff.com	82742426
Aa	eeeeeeesadsdfsf	yessadsa	eeedfgfd	777
Praveen	praveen kumar	bangalore	prqveen@yahoo.com	26391904
Som	Somendra	Agra	Somen@infomatics.com	12345678
Venkat	Venkatesh	banglore	venkatgit@yahoo.com	80236890
Raga	Ranganath	wilson garden	viny@yahoo.co.in	80234567
8	Kkkkk	eeewew	vvv@w	4445343

4. RESULTS

In the first year alone student evaluation of instruction has improved by 11% showing instructors are making use of digital materials and instructional tools. Seventy-eight percent of online classes have a retention rate of 80% or higher with seven percent having a 100% rate. As a result of the technology training offered in the TLC **f**aculty and students have a much stronger foundation in technology based learning. This should lead to more instructionally sound course materials, lectures, and computer-based instruction in the future. Learners both now and in the future will benefit from the resources provided by the Technology Learning Center.

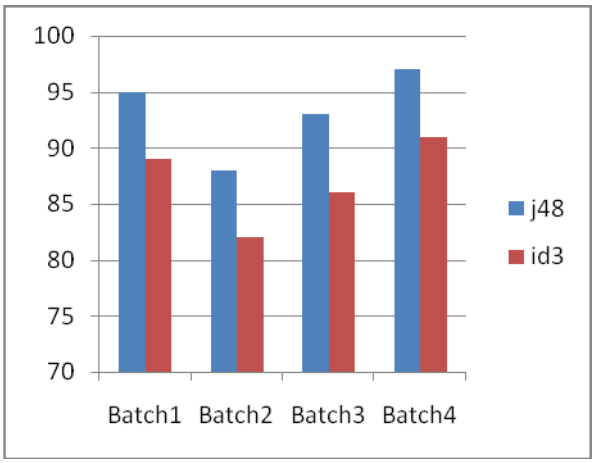


Fig3: Accuracy graph

The participants will recognize where and when instructional technologies will be a more effective instructional solution improving student achievement and learning assessment. The non-traditional student is characteristically dedicated when given the

opportunity to learn by doing, to engage in collaborative construction of knowledge, and to experience mentoring relationships. The blended learning environment along with the assistance from the technology learning center has allowed more students to see a degree as something attainable. The technology learning center director is available to provide feedback support because no participant can become an expert after one visit to the center. Expertise comes with continual learning through the persistence of being a life-long learner.

5. CONCLUSION

Working with big data using data mining and analytics is rapidly becoming common in the commercial sector. Tools and techniques once confined to research laboratories are being adopted by forward-looking industries, most notably those serving end users through online systems. Higher education institutions are applying learning analytics to improve the services they provide and to improve visible and measurable targets such as grades and retention. This paper discuses new method to improve in accuracy of learning in automatic teaching learning system.

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Authors:

1. L.Venkateswara Reddy
Professor
Information Technology
Sree Vidyanikethan Engineering College
Tirupati-517501

2. Dr. A. Rama Mohan Reddy
Professor
Department of CSE
SVU College of Engineering
SV University
Tirupati-517501.