



Rank-Based Clustering Techniques Using E-learning system (RBCTUES)

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ABSTRACT

E-learning is emerging as the new paradigm of modern education. Most of the e-learning systems have limitations such as scarcity of content, lack of intelligent search and context sensitive personalization problems, which are the challenging tasks for researchers. This motivated the author to take up this problem and the method implemented through this work suggests the instructors to use the combination of Rank-Based Clustering Techniques Using E-learning system (RBCTUES) was designed. The main aim of the model developed is to get consistency in content delivery, quality content in learning materials, students self-learning concept, and performance improvement in their examination. A study has been conducted During June 2013 to September 2013, the author collected samples of 1631 from final year and Second year of BCA, B.SC and B.Sc-IT students were trained through e-learning system architecture and the objectives of this study is To measure the effectiveness of Rank-Based Clustering Techniques Using E-learning system (RBCTUES) among the students of Mercury College of arts and science And SS Govt arts and Science College in concepts of Programming in JAVA Course. The newly designed Rank-Based Clustering Techniques Using E-learning system (RBCTUES) shows an improvement over the existing systems with better results. From the

various evaluations carried out, the performance of the system found to be good comparatively to other systems in e-learning domain.

1. INTRODUCTION

The concept of e-learning is expected to develop as technology advances. In order to boost the gains of e-learning market, the learning components are developed that interoperate and co-operate. The great advantages of e-Learning include liberating interactions between learners and instructors, or learners and learners, from limitations of time and space through the asynchronous and synchronous learning networks.

2. RELATED WORK OF E-LEARNING

This section presents a literature survey of the approaches used in e-learning environments. Describes learning styles as the preferred ways through which learners interact with and process information in learning environments. Different views of learning styles were and are still discussed in the literature. Behaviorism, a reductionist view of

human behavior, dominated the field in the first half of the 20th century. It was called reductionist because it used a black box approach based on empiricism, but such a simplified view left much to be desired. Rogers points out that "learning includes goals, purposes, intentions, choice and decision-making, and it is not at all clear where these elements fit into the learning cycle". Online learning has advantages over traditional face-to-face education, concerns include time, labor intensiveness, and material resources involved in running e-Learning environments. The costly high failure rate of e-Learning implementations discussed by deserves attention from management and system designers.

3. ARCHITECTURE OF E-LEARNING SYSTEM

In this work, architecture of e-Learning the combination of Rank-Based Clustering Techniques Using E- learning system (RBCTUES). The Rank-Based Clustering Techniques is capable of retrieving computer application based databases from the www and they are clustered based on the relativeness of the document to the user search. Clustering is based on page ranking which represents the level of relativeness for the retrieved clustered documents. Document

retrieval is based on the occurrence of the computer application based terminologies and keywords based on the user search text.

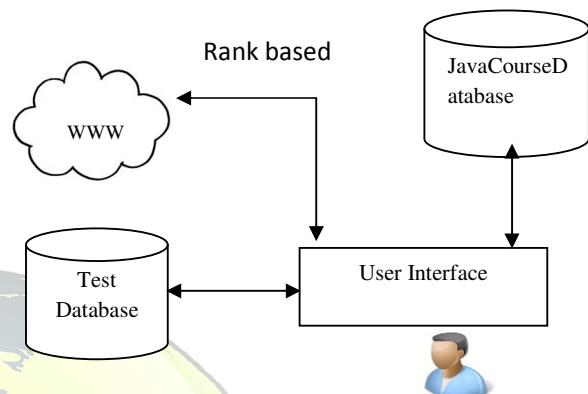


FIG1.1Architecture ofRank-Based Clustering Techniques Using E- learning system (RBCTUES)

The below is the algorithm for Rank-Based Clustering Techniques Using E- learning system (RBCTUES)

Step1: Enter the searching text

Step2: Analyzed keyword and terminology from text

Step3: The relation set to identify the keyword from text

Step4: Through Word Net extract AlterNet keyword and terminology, store to the relation set list

Step5: The relation list, displayed related Docs from OSDDBS



Step6: Extracted Docs stored to temporary folder

Step7: Doc list organizer rank the Docs on Rank based score

Step8: Rank score evaluation determinate was direct match keyword and found direct match terminologies.

4. PERFORMANCE EVALUATION OF E-LEARNING

Data mining-based e-learning system environment combined the pedagogical, communication and software tools integrated into one system that is used to promote learning. This helps to create an optimal knowledge building and learning environment for students.

A study has been conducted to measure the effectiveness of e-learning system using Rank-Based Clustering Algorithm among the students of Mercury College of arts and science SSGovt arts and College in concepts of Java programming course.

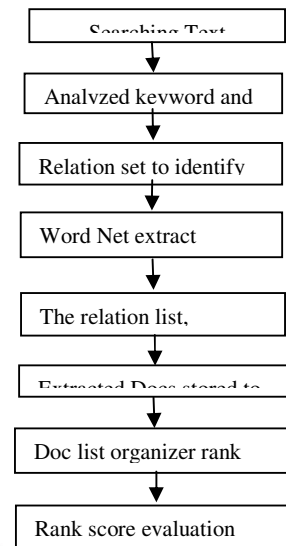


Fig 1.2 Rank-Based Clustering Techniques

The purpose of the study was twofold: (i) to measure the effectiveness of Rank-Based Clustering Techniques Using E- learning system (RBCTUES)(ii) To find the student effectiveness (test mark) of Rank-Based Clustering Techniques Using E- learning system (RBCTUES)among the students of Mercury College of arts and science And SS Govtarts and Science College in concepts of Java programming course based on their marks beforeand after the e-learning course. This paper presents how the collected data are analyzed through appropriate statistical techniques and the results of data analysis.



Depending on the Feedback about the performance in the course, among the traditional teaching method (TTM) and Rank-Based Clustering Techniques Using E-learning system (RBCTUES), there is significant difference exist among the learners.

There is a significant difference between the traditional teaching method (TTM) and Rank-Based Clustering Techniques Using E-learning system (RBCTUES), among the learners, in the following factors, Feedback about the performance in the course, The instructors interest in your learning, The instructors assessment of your progress in the course Utilization of class time, The instructors overall organization of the course, Continuity from one class meeting to the next meeting, Learning materials used in the courses, Availability to assist students in or outside of class was, Simulation of interest in the course was and Facilitation of learning , are in favor of Rank-Based Clustering Techniques Using E-learning system (RBCTUES) method at the level of significance of 0.05.

Table 1. Number of respondents based on Course

		Details of the learners							Total
		B.S C – CS III	B.S C – IT III	BC A III	B.S C – CS II	B.S C – IT II	BC A II	B.S C – CS II	
source of learning	Group A (TTM)	126	94	126	65	128	131	134	804
	Group B (RBCTUES)	125	93	135	72	129	138	135	827
Total		251	187	261	137	257	269	269	1631

5. CONCLUSION

The concepts of e-learning system have been outlined. E-learning is considered in the context of formally and systematically organized teaching and learning activities, in which the instructor and the learner(s) use ICT to facilitate their interaction and collaboration. The use of data mining based e-learning system will definitely impact the quality of the education that is delivered and the deliverability of information through knowledge and information sharing. The newly designed Rank-Based Clustering Techniques Using E-learning system



(RBCTUES) shows an improvement over the existing systems with better results. From the various evaluations carried out, the

performance of the system found to be good comparatively to other systems in e-learning domain.

