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A Dissertation Report on

**Real time Response Capture and Analytics of Intelligent Tutoring System**

# *Bachelor of Engineering in Computer Science & Engineering*



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**Abstract:**

Online learning has become a prominent and inseparable component of higher education in recent years. Questions related to course structure, levels of interaction, presence, and participation within online courses persist and invite further inquiry for determining factors that encourage effective teaching and learning in online environments. Our Real time response capture and analytics system explores models of course development and delivery techniques to improve instruction, learning, and student satisfaction in online courses. Covering topics such as rates of participation, student engagement and retention, and social development, this system serves as a resource for educators in online learning environments, as well as for course designers and developers of online courses and researchers whose agenda includes examining interaction, presence, and participation in online courses.

**Existing System:**

Feedback forms are used to collect the response of learners for online class. In this kind of works response for a session was collected at the end the session or video only. Received responses are analyzed to get the grade of that session.

**Draw Backs:**

Collecting feed back at the end of session will provide only overall performance. We are not able to get periodical response because of this educators are not able to understand which category of educating should be improved.

**Project Objectives:**

* Our main objective is to provide the rating parameters such as Syllabus Coverage, Usage of Examples, Understandability and Practical Knowledge to learner for better response collection. The learner can rate the performance of educator’s video session any number of times within the time limit.
* Total performance of the session will be analyzed with the help of ratings from all learners. This analysis will be given to educators to improve the performance in next sessions.
* Helps to improve learning, instruction and student satisfaction.

**Proposed system:**

In our work we are planned to capture the response at any time of the video session. We are going to provide the rating parameters such as Syllabus Coverage, Usage of Examples, Understandability and Practical Knowledge to learner for better response collection. N number of times learner can rate the performance of educator within the time of video session. By doing this individual performance details of educator will be collected. At the end average of given ratings will be calculated. Total performance of the session will be analyzed with the help of ratings from all learners. This analysis will be given to educators to improve the performance in next sessions. Video wise comparison will be conducted by the admin person to verify the performances.

**Advantages:**

Performance of educator will be analyzed based on different parameters so that they can easily identify what type of inconvenience is faced by learners from them. They can easily rectify and improve the performances in next session. Performance analysis is given as graph to educators for easy understanding.

**Work Flow:**

**Having a separate Login and Signup access for:**

* Students (Signup having details of Name, Password, USN, Sem & Dept)
* Tutors (Signup having details of Name, Password, Faculty ID Number, Dept
* Admin (Signup having details of Name, Password, Admin ID Number, Designation)

**Access Limitations to be:**

* Students - Access Limited to Selection of Video/Classroom Session, Rating based on different parameters on the classroom sessions.
* Tutors - Access to Analyze their sessions (therefore few videos are to be pre assigned to the tutors, so that it restricts them from viewing other tutor's analysis)
* Admin - Access to analyze all individual sessions of tutors and also to compare the classroom sessions. The admin also should have a facility to save/send the graphs & csv files to files/emails.

**Rating Parameter:**

Rating to be made with several parameters like:

* Presentation Skills
* Syllabus Coverage
* Usage of Examples
* Understandability
* Practical Knowledge

**SYSTEM REQUIREMENTS:**

**HARDWARE REQUIREMENTS:**

* System : Pentium IV 2.4 GHz.
* Hard Disk : 40 GB.
* Floppy Drive : 1.44 Mb.
* Monitor : 15 VGA Colour.
* Mouse : Logitech.
* Ram : 512 Mb.

**SOFTWARE REQUIREMENTS:**

* Operating system : Windows.
* Tools : Netbeans
* Front End : JSP
* Back End : Oracle
* Languages : Java and Jsp