Assessment-Based Learning Analytic And Technology Information Report Using Machine Intelligence

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Abstract- The proposed learning analytic tasks to understand the learning process and the technology and growth information report based on the categories of questions assessed in a smart classroom\e-learning. Learning analytics can extract knowledge from a course to better understand students and their learning processes. The learning analytic tasks must evaluate different aspects in the course: the teaching and learning process, the student performance, and the pedagogical practices, among other things. Learning analytic in a smart classroom have various things. Specifically, we define a set of learning analytic tasks to analyze the evaluation process in a smart classroom, based on the score of the students, the skills developed by the students, the behaviour in the assessment questions, etc. We have used different data mining techniques to develop the la tasks. Finally, the report contains the global market values of the categories that chosen in the assessment. Also, report will have the details of reference links such as details, documents, videos of the categories included in the assessment. An engine inside the system will automate the end to end process.

Keywords- Learning analytics, data mining, assessment based learning, knowledge building, opinion mining.

I. INTRODUCTION

Teaching and learning in a course can produce a lot of information about the learning process, and the main question is how to explore it. In recent years has emerged a new domain, called Learning Analytics (LA), to provide answers to questions such as: How does the information collected during a learning process can enrich students' learning experiences? How can an Educational Institution effectively exploit the data collected in a course to positively impact the teachers' pedagogical practices?

Several ways to derive an excellent evaluation of smart classroom/e-learning. But still those system are lags with the result set that not driving the approach much efficient. So, there should be minimal and maximum factors that must overcome these scenarios.

An elaborated learning analytics and an extended assessment based reports and opinion mining of feedback, mentoring topics or concepts with its global value and various reports will be solution achieve the expected result in smart classroom/e-learning

II. RELATED WORKS

In a smart classroom\e-learning the learning analytics can extract knowledge from a course to better understand students and their learning processes.

Effective mentoring supported by information technology need the integration of several things which are technology and tools, teaching methods, observer characteristics, teaching content and its actual trend and the final objective.

All these can be evaluated using an assessment and its analytics, summative report. To get a proper result in this, both teaching and learning process has to be gone through an efficient mechanism.

In includes the modules like,

- Mentor and learner registration
- Mentor Module and its Global Trend (MMGT)
- Learner profile (LP) analysis
- Assessment selection module
- Assessment system
- Assessment analytics and summative report

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All these can be evaluated using an assessment and its analytics, summative report. To get a proper result in this, both teaching and learning process has to be gone through an efficient mechanism.

This system will provide an elaborated learning analytics and an extended assessment based reports and opinion mining of feedback, mentoring topics or concepts with its global value and various reports will be a solution to achieve the expected result in smart classroom/e-learning.

Lucene search for fastest indexing and complex search query and Redis cache for fastest lookup

III. SYSTEM FRAMEWORK
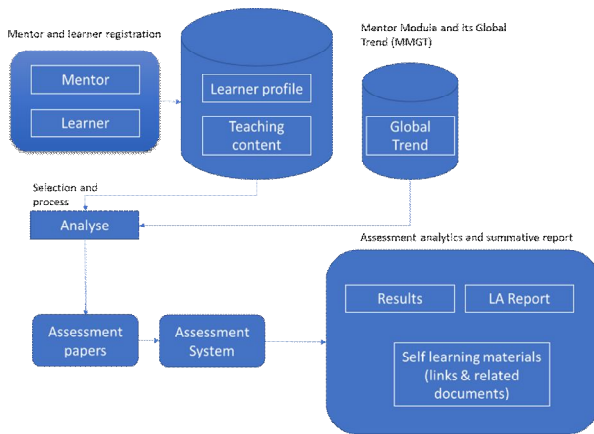
IV. RESULTS

Analysis and reports about,

Students who good in learning the concepts.

Students who good in scoring in the assessment.

Students did not understand the course contents.

Students did not study the evaluated subject, or Students did not have enough time to answer the question.
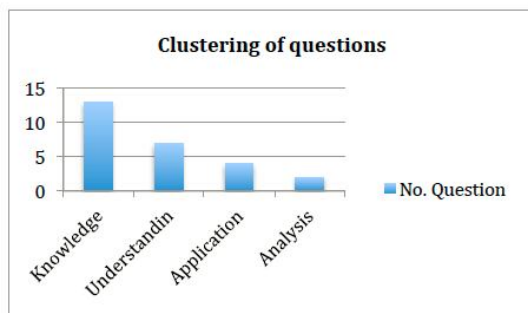
Discovery of patterns about the assessment process in a smart classroom

Knowledgebase to the student to build their capability in specific where they need improve

Opinion mining result to choose the right technology.

V. CONCLUSIONS

This is providing a collaborative approach of learning in smart classroom and assessment based learning can predict the capability of student and help improving the same. LA

tasks have used different techniques and of information. For example, the Bloom's taxonomy is used for a semantic enrichment of the information. This taxonomy allows establish in a precise way, the new elements to incorporate in a course, according to the categories of the questions bad covered. Some of the data mining techniques used are a classifier system and association rules, to determine the elements that influence the assessment process. Its necessary to provide the right technology and its related worked to provide an efficient mentoring in smart classroom. So, the technologies and concepts used here could be a well-defined solution in mentoring and building the knowledge in different technology.

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