



Mining Education Data to improve Differently Abled Students' Performance

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ABSTRACT

Educational data mining provides a set of techniques (Barnes, 2005; Desmarais and Pu, 2005; Pavlik et al., 2008) which can help educational system to overcome this issue in order to improve learning experience of students. Educational Data Mining is key area in mining students' performance and helpful in predicting educational institutions performance taking parameters like Teaching skills, Course content, Infrastructure etc. Through Data Mining application, we can share, develop and apply our knowledge for organizational growth.

The Purpose of this study is to elicit knowledge from the information collected from faculty and students of the Universities/Institution so that in-house training on skills and quality programmes can be planned. Through Data mining, educational data can be analysed which helps in development of new models for improving institutional effectiveness.

Introduction

Institutions of higher education need to continuously improve and strengthen themselves or else they cease to be centres of academic excellence. The quality of higher education in developing countries is influenced by socio-cultural, academic, economic, policy, political and administrative factors all of which are inextricably interwoven as well as complex factors that have their roots in commercialization, general funding, and human population growth. Appropriate policies and homebred professionals (both academic and administrative) are necessary for improving the quality of higher education in developing countries. Quality parameters representing a measure of the extent to which a higher education institution or a programme is performing in a certain quality dimension. They are qualitative and quantitative measures of the output. They allow institutions to benchmark their own performances or allow comparison among higher education institutions. Performance indicators work efficiently only when they are used as part of a coherent set of input, process, and output indicators.

Background

Paige (2005) provided a conceptual overview of the internationalization of higher education and presented a set of performance indicators for assessing internationalization. It begins by locating internationalization within the context of globalization and discussing the impact of globalization on tertiary education. The study continues with overviews of the concepts of performance assessment, performance indicators, and a performance assessment model.

Yannibelli et. al., (2006) found in his study that learning styles encapsulate the preferences of the students regarding to how they learn. By including information about the student learning style, computer-based educational systems become able of adapting a course to the individual characteristics of the students. In accomplishing this goal, educational systems have been mostly based on the use of questionnaires for establishing a student learning style.

Kanpinit (2008) investigated the key requirements for the development of a Master's Degree Program in Educational Administration in private higher education institutions in Thailand. The key requirements are concerned with the essential indicators of educational quality management for an effective program. The quality indicators recognized current best practice for educational effectiveness and quality management.

Ramaswami&Bhaskaran (2009) used genetic algorithms in the educational field for the purpose of extracting useful information on the behaviours of students in the learning process. In this EDM, feature selection is to be made for the generation of subset of candidate variables. As the feature selection influences the predictive accuracy of any performance model, it is essential to study elaborately the effectiveness of student performance model in

connection with feature selection techniques.

These are some studies mostly focused on general students. Therefore, these studies are influences me for the study of differently abled students' performance improvement.

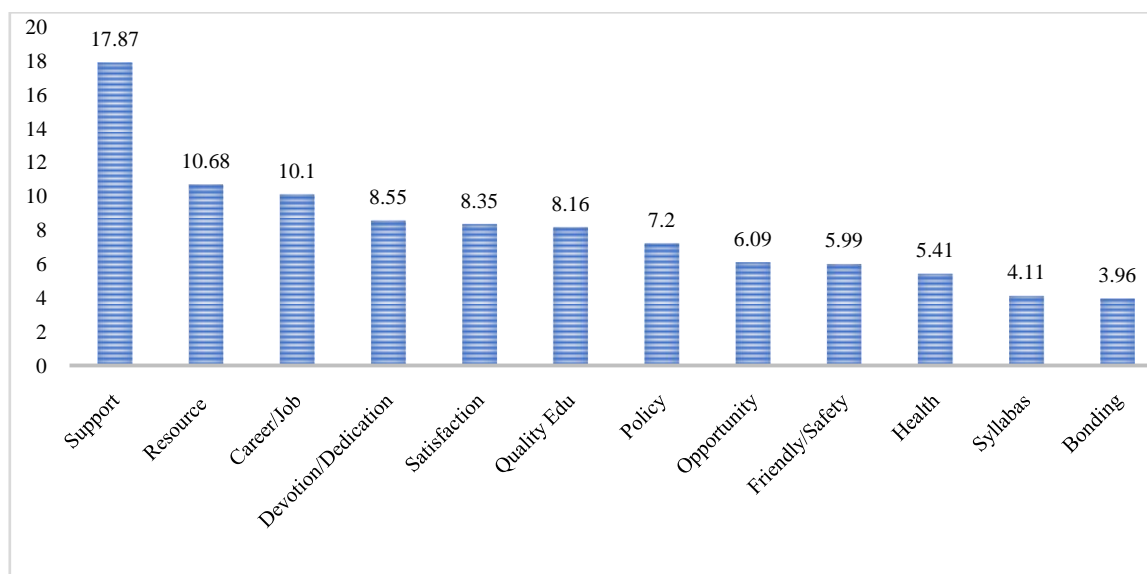
Methodology

The purpose of research is to discover answers to questions through the application of scientific procedures. The main aim of research is to find out the truth which is hidden and which has not been discovered as yet. Educational data mining methods often differ from methods from the broader data mining literature, in explicitly exploiting the multiple levels of meaningful hierarchy in educational data. Methodology is the systematic, theoretical analysis of the methods applied to a field of study. Research method is a systematic plan for conducting research. It comprises the theoretical analysis of the body of methods and principles associated with a branch of knowledge. Typically, it encompasses concepts such as paradigm, theoretical model, phases and quantitative or qualitative techniques. Methods from the psychometrics literature are often integrated with methods from the machine learning and data mining literatures to achieve this goal.

The aim of data mining is to discover structure inside unstructured data, extract meaning from noisy data, discover patterns in apparently random data, and use all this information to better understand trends, patterns, correlations and ultimately predict customer behaviour, market and competition trends, so that the company uses its own data more meaningfully to better position itself on the new waves.

Results

The present study is based on the analysis of Institutions working for differently abled students under the given heads like lack of involvement in learning activities, support from educators and student support systems, rigid curricular frame work and methods of teaching, personal and interpersonal problems, Institutional policy and support for availing learner, activities related to UGC and other academic agencies, resources available in the university, attitude, opportunity, syllabus and quality education, career and job, friendly and safe environment, satisfaction from university, bonding with university system, devotion and dedication of employee of the university and health related issues. The following observation are recorded during the study.



Conclusion

The Institutions working for differently abled students should have worked for friendly environment providing necessities to the physically challenged. The Institutions should facilitate Braille and talking books for the blind and sign language interpreters to aide hearing impaired students. Things should move little and ensuring barrier-free education remains a dream. Students with disabilities apply directly to the Institutions, the whole process should be

central or automated in case of admission is online. If they are found eligible then on the day of admission they should be counselled at the office of academic registrar or Dean of student welfare Office. The campus should finish process on the day of admission. Health facility should be improved. The creation of barrier free environment including provision of ramps, transport facilities for accessibility to the Institutions etc.

These are some suggestions to the Institutions working for differently abled students' education.

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