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Student Perceptions on Support Services in Sri Lanka

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ABSTRACT :

There are a number of components in distance education which broadly include student support services, management of the institution, financial services and examination etc. Student Support Services is one of the major components of a distance education institution The OUSL provides many support services to the students which includes Counseling at student enrollment, tutor counseling, print material, Face to Face contact sessions, Tutor clinics, Practical sessions, Audio/video facilities, Library Facilities, Financial assistance, Evaluation of student Performances, Field visits and training programmers. The main objective of the study is to examine students' perception on student support provided by the Open University. A structured questionnaire was used in gathering information. The sample included 500 undergraduate students selected at random belongs to the four faculties of Natural Science, Engineering Technology, Humanities and Social science and Education of the Open University of Sri Lanka. On the CART analysis, four faculties were split into two parent nodes (Node 1 and the node 1 included 48.4% of student responses from the Faculty Engineering Technology, 37.7% from Faculty of Natural Sciences, 12.0% from Faculty of Education and no students' responses from Faculty of Humanities and Social Sciences. Similarly, Node 2 consists of 47.3% student responses from the Faculty of Engineering Technology, 30.4% from the Faculty of Natural Sciences, 11.6% from the Faculty of HSS and 10.7 from the Faculty of Education. The students perception on student support services offered by Open University is vary across the faculties. In summary, there is a need in improving the available student support services such a prospectus, evaluation methods and supplementary audio cassettes produced by the Open University of Sari Lanka.

1. INTRODUCTION :

Distance education is an educational method way back to 150 years. Distance education has long been evolved with an advancement of the technological innovations. It provides equal opportunities to learner and reduces the distance among communicators for global, competitive learning environments among the countries. The distance education has recent been emerged as an alternative mode for higher education all over the world. Distance Learning methodologies have been subjected to a tremendous growth during the last decades with the advancement of the technology. There are a number of components which broadly include student support services, management of the institution, financial services and examination etc. Student Support Services is one of the major components of a distance education institution (Robertshaw, 2000; Cain & Lockee, 2002). The proper function of distance education system is therefore depends on these components and are need to be coordinated carefully. The strong student support will lead to cope the feeling of isolation, increase student retention, help resolve personal problems or

barriers and also help in skill development such as learning skills (Gunawardena, 1988). Therefore, distance education system and students are closely related to each other through net work of support services and it cannot be expected to exist one without other (Simpson, 2001). The completion and success rate in open universities reveals that a considerable number of students do not complete the courses and there are number of possible reasons for student drop out (Biswas & Mythili, 2006 ; Raza & Allsop, 2006 ; Milne, 2003 ; Tripathy & Mukerji, 2005) and with an effective Student Support Service system, the student drop out and student retention could be reduced.

The number of support services in an institution can offer largely depends on that particular institution's capacity and resources at its disposal. These can be put into two categories: academic including such packages as tutorial, advising and counseling services and administrative functions such as enrollment, admission and registration, record keeping, information provision, and delivery of study materials (Molefi, 2002).

The Audio and video has long been identified as an important media in distance learning (Bork, 1995 ; Sipusic, Pannoni, Smith, Dutra, Gibbons & Sutherland, 1999). Therefore, components of print, audio and video, contact programmed and practical session are of importance in smooth functioning of the programs offered by distance learning institutions. It has been reported from a study carried out on the study centers of IGNOU (Biswas, 1999), have revealed that there was an increase in Students' preference for attending counseling sessions, consulting library and collecting information.

The Open University of Sri Lanka has been established as a sole distance Education institute in the country and student support services were introduced to maintain the standards of the programmers offered by the University. The OUSL provides many support services to the students which includes Counseling at student enrollment, tutor counseling, print material, the Face to Face contact sessions, Tutor clinics, Practical sessions, Audio/video facilities, Library Facilities, Financial assistance, Evaluation of student Performances, Field visits and training programmers.

However, there are gaps in the knowledge of understanding the role played by the above mentioned components of the student support services especially for the OUSL. The present study focused on the selected student support services with their present status and contribution made to the quality of the programs. The perception of university staff including academic, administrative, non-academic and students on the support services offered by the University is crucial in developing and improving such services. Further, there is a scarcity in the studies related to Student support services in the OUSL and need in such studies to investigate the strengths and weaknesses of the existing support services in the OUSL. The main objective of the study is to examine students' perception on student support provided by the Open University and to make recommendations and suggestions to the policy makers for their consideration for implementation. The students' perception on the students support services such as face to face teaching component, teaching materials, practical components, project work, and tutor clinics seems to be varying individually as well as at the level of sub-populations. Therefore, the objective of the present study was to examine the student perception on support services provided by the faculties of the OUSL through a classification and regression tree analysis.

The main objective of the study is to examine student perception on support services provided by the Open University and to make an examination on the support services and make recommendations and suggestions to the policy makers for their consideration in implementation. The student perception on the support services such as face to face teaching component, teaching materials, practical components, project work, and tutor clinics seems to be varying individually as well as at the level of sub-populations. Therefore, the objective of the present study was to examine student

perceptions on the support provided by the faculties of the OUSL through a classification and regression tree analysis of staff response data.

2. METHODS :

A structured questionnaire was used. It was developed to address the opinions of the student population on the Prospectus/ Guide book, Orientation, print and AV materials, day school of all the four faculties of the Open University of Sri Lanka. The questionnaire consists of 40 items was developed such a way that the participant can complete it in one go, and all the objectives can be achieved by the researcher. The questionnaire was in English. Prior to administration of the questionnaire, it was piloted and validated. The validated questionnaire was administered to the students in the four faculties of the OUSL. The sample included 500 undergraduates selected at random from the four faculties of Natural Science, Engineering Technology, Humanities and Social Sciences, and Education.

The univariate and bivariate statistical analyses were carried out whenever possible. Data mining is a data processing method with a very broad area of usage (Sevindik & Demirkeser, 2010). The constant increase of the information in the developing world increased the use of data mining as well. Particularly due to the market competition which data mining is applied and determination of the goals, making the situation assessment and charting the project plan. In general, data mining have been employed in wide array of education research (Romero, et al., 2008) and in student success distance education system (Kovai, 2010). The Classification and regression tree analysis is on of the data mainlining tool that has been widely used in different field of studies. The Classification and Regression trees provide a simple and effective methodology for classification and prediction (Breiman et al., 1984 ; Quinlan, 1986, 1993). They are therefore popular in both statistics and machine learning and have generated a vast literature, particularly in distance learning. The classification and regression tree (CART) is an interesting simple and straightforward way to perform pattern recognition. CART is a nonparametric method of classification and regression which aims to find mutually exclusive regions of the data space containing homogeneous subsets of the data (Daszykowski et al., 2004 ; Breiman et., 1984). CART yields a binary decision tree containing nodes connected by branches Nodes giving rise to two new nods(named child notes) are called parent nods other wise they are terminal nods. The tree is constructed via a recursive procedure partitioning objects from a parent node into two child nodes. Each node is characterized by a logic rule usually defined for a single explanatory variable. (e.g., if..greater than .. then…) which leads to two child nodes that divide the sample into non-homogenous sets compared to the original parent node. Usually partitioning is stopped when the increase in the tree complexity outweighs the increase in accuracy. Relevant advantages of CART can be summarized as (Questier, et al., 2005) : (i) it is a non-parametric method (which means that no assumptions are made regarding the underline distribution of the data ; (ii) it is invariant to monotonic transformations of the explanatory variable (only the rank order of each explanatory variable is important) ; (iii) is it fast simple and intuitive ; (iv) it allows for a graphical interpretation ; (v) it can handle missing data ; (vii) it is robust to outliers as they will be separated into a different group of either do not influence the prediction ; and (vii) cross-validation can be employed to access its usefulness. In the present study, the responses of were subjected to CART was to find the patterns of responses reflected from the data. A number of regression trees were developed and two trees were chosen based on the cross validated and re-substitution errors (0.067 and 0.026 respectively).

3. RESULTS & DISCUSSION :

The study included 500 respondents following various disciplines of the degree programmes of the four faculties of the

Table 1 : Summary Statistics of the Students from the Four Faculties in the Sample

Name of the Programme	Number of Students	Percentage Overall
Bachelor of Technology	237	49.2
Bachelor of Science	162	33.6
Bachelor of Education	34	7.1
Humanities and Social Sciences	49	10.1
Total	482	100.0

Open University of Sri Lanka. The summary statistics of the student sample is given in Table 1 shows that there a sample size differences among the faculties. According to Table 4.1, majority of students (49.1%; 237 out of 482) were from the Bachelor of Technology programme. Meanwhile, Bachelor of Science Programme represents 33.6% (162 out of 482) and Bachelor of Education Programme represents 7.05% (34 out of 482). The Humanities and Social sciences represent 10.1% (49 out of 482). The gender composition of the sample indicated that there were a higher number of female students in the sample and there were 77.6% (386 out of 498) unmarried students (386, 77.6%). The sample population included in the study consists of 36.7% students from Colombo Regional centre. 18.2% from Kandy Regional Center. Matara and Anuradhapura Regional Centers includes 18.2% and 13%student out of 495 total populations respectively. The distribution according to study centre Ambalangoda represents 13.1% of the sample population. Most of the study centers in the Open University do not have registered students for the Degree programmes.

On the CART analysis, four faculties were split into two parent nodes (Node 1 and Node 2) based on the item related to the adequacy of preparation time for Continuous Assessment Test (CAT). The node 1 included 48.4% of student responses from the Faculty Engineering Technology, 37.7% from Faculty of Natural Sciences, 12.0% from Faculty of Education and no students' responses from Faculty of Humanities and Social Sciences. Similarly, Node 2 consists of 47.3% student responses from the Faculty of Engineering Technology, 30.4% from the Faculty of Natural Sciences, 11.6% from the Faculty of HSS and 10.7 from the Faculty of Education. Based on the in formativeness of the Prospectus prepared by faculties, the parent node 1 was divided into two Child Nodes 3 and 4. The node 3 included the students responses indicating that the Prospectus contributes to a great extent in the increasing awareness on the students support services available in the OUSL and on the structure of the study programmes offered by the faculties. This indicates that Prospectus produced by the Faculty of Natural Sciences is highly informative. Meanwhile Node 4 resulted from the student responses to the question whether the prospectus provided adequate information on the distance study system practices in the Open University of Sri Lanka. Based on the availability of audio cassettes, the parental node (Node 2) that resulted from the split of preparation time was further split into one child node (Node 5) and parental node (Node 6). The child node (Node 6) includes 57.1% of Responses from Engineering Technology Faculty and more or less similar percentage from Faculty of Natural Science and Humanities and Social Sciences. The Faculty of Education represents by 10% of the responses. The parent Node 6 produced two child nodes that are Node 7 and Node 8, based on the promptness of the releasing the final examination results. The proportion of student responses from each of the four faculties in the resulting Node 8 indicated that the Faculty of Humanities and Social Sciences was a little less aware on need for the required promptness of the releasing of the final examination results.

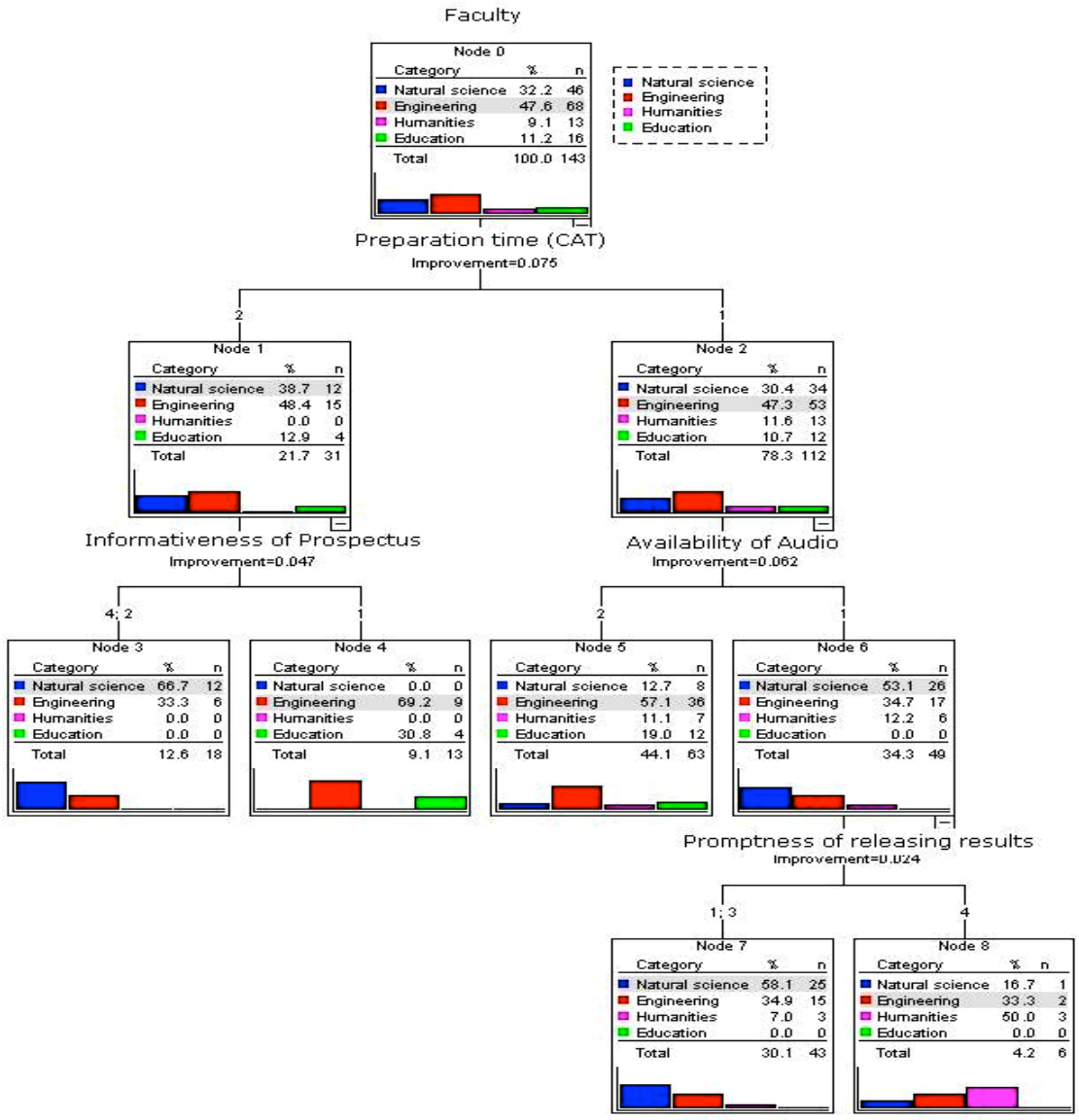

Figure 1 : Decision tree result from the CART analysis of student's responses

The students perception on student support services offered by Open University is vary with respect to the faculties. According to the student's responses, the evaluation system of the Open University needs a review, specially the scheduling of CAT examination to avoid the narrow time gap. The students' opinion on the pre-enrolment guidance indicated an inter faculty variation and there is a need to improve the overall quality of the prospectus to maximize its in formativeness and to reduce the interfaculty variation. The use of audio cassettes in supplementing print material is important in distance education. Our results showed poor availability of audio cassettes in the Faculty of Engineering Technology. Meanwhile the Faculty of Natural Sciences has increase the availability of audio cassettes to the students. In addition, the release of the results of the final examination is of importance in registering subsequent level of study and planning personal strategies in obtaining employment from the competitive job market.

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