

## Techniques to Improve E-Learning Using Feedback Analysis

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### ABSTRACT

The Learners are like to study in short-term, within the term they like to learn supplementary bunch. This requirement has fulfilled by the online educational system. The online Educational System provides the Notes, Books, Audio and Video Lectures, Manuals, Presentations etc., The Learners are expecting more apart from the contents or the learners are not willing to study which the online Educational System provided. The online Educational system provider has to know about the Learners satisfaction level, which has evaluated by the Learners feedback. The feedback analysis has evaluated by the selected criteria. Using this option, the learners will give the feedback to the particular subject trainer through the scoring options. Finally, the feedback scores evaluated. This operation is instructing the trainer to implement and update their teaching skills.

**Keywords:** *E-learning, Learner, Trainer.*

### 1. INTRODUCTION

Anything can able to learn from anywhere through internet. The use of electronic media, information and communication technologies in education, teaching and training called E-learning [1]. E learning provides to the Management Decreasing the cost of learning delivery, and inexpensive travel, survival cost and time away from the job. The proposed system detects the differences among trainers by using the Evaluation Criteria. An important goal of E-learning system is to deliver instructions that can produce equal or better outcomes than face-to-face learning systems. To achieve the goal, an increasing number of empirical studies have conducted over the past decades to address the issue of what antecedent variables affect the students' satisfaction and learning outcomes and to examine potential predictors of e-learning outcomes [2]. A positive change in knowledge outcomes has indicated by an increase in the proportion of students with correct responses after completion of the e-learning package as compared to baseline knowledge scores [4].

### 2. METHODOLOGY TO COLLECT THE FEEDBACK:

The numbers of Criterion have given to the learners to give the performance of the trainer. The Trainer Performance can give like Very good, Good, Average, Need Improvement and Poor. Each Performance has been allocating some marks. Finally, conclude the performance of the faculty through the marks, which have given by the learners. The Criteria has listed below.

- Knowledge base of the faculty about course taught.
- Faculty Communication Skills

- Sincerity, Commitment and punctuality.
- Lesson Planning and Execution.
- Ability to integrate Content with other courses/other issues, to provide a broader perspective.
- Accessibility of the trainer in and out of the class (includes availability of the trainer for discussion outside class).
- Answering Questions/Clarifying Doubts.
- Amicability with Students.
- Motivating/Counseling the student for their betterment.
- Providing Course materials and other technical details.

### 3. STEPS TO FIND THE TRAINER PERFORMANCE

Criterion types (CT) have to define to analyze the trainer. Each criterion has awarded and evaluated by the Score Type (SCT). They have to find the Number of counts for the score type (NCT) and assign the scores for particular criterion (SPC). These are the basic requirements to find the Total Score for Particular Criterion (TSPC), Total Score for All Criteria (TSAC), Average Score for Particular Criterion (ASPC) and Average Score for all Criteria (ASAC). The Number of Criterion has defined as NC.

$$TSPC = \sum [SCT * SPC] / \sum [NCT]$$

$$ASPC = [TSPC / 100] / NC$$

$$TSAC = ASPC / NC$$

$$ASAC = TSAC / NC$$

The Average Score for Particular Criterion (ASPC), which has secured by the learners. The Average Score for all Criteria is the Cumulative and the score, which have secured by the learners using the Proposed System.

#### 4. DESIGN OF THE FEEDBACK ANALYSIS:

The Proposed System has designed for the learners to give the feedback about the trainers' performance and the Environments. The design starts with Academic Year Selection and Ends with Cumulative Feedback Report.

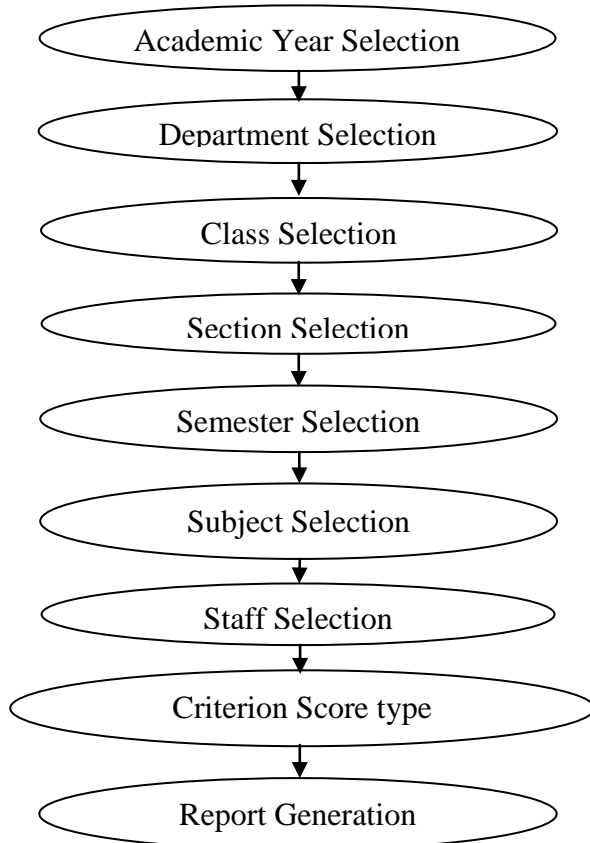


Chart4.1: Structure of Feedback Collection

#### 5. DATABASE TOOL:

DBMS short for database management system plays a major role in most real-world projects that require storing, retrieving and querying digital data [3].

##### 5.1 Advantages of Microsoft SQL Server

1. Microsoft SQL Server has built in data integrity/recovery facilities. Instead of all users accessing the same file at the same time, each user talks to the server software, and the server software manages the creation, reading and writing of information to each table. Data backup and restore options built into the server software.

2. Microsoft SQL Server has user and group level security. Instead of giving each user access to the folder, that contains all data files (as is necessary with the native database); simply give rights to talk to the server software. Rights can grant based on your Windows Domain users and groups. The actual file that the server uses to store data can be invisible to the user.

3. As the number of users grows, it will provide better performance than the native Database.

4. Performance is not affect by anti-virus programs.

5. It is an industry standard database, meaning almost any database aware application will be able to access your data, including various report writers and Excel.

##### 5.2 Disadvantages of Microsoft SQL Server:

1. Requires a level of knowledge of the Microsoft SQL Server environment.

2. Backups must do in a different way.

##### 5.3 The Way to Use MS SQL Server:

###### ➤ Database Creation

In case of MS SQL Server, by clicking on the corresponding icon, a new database created.

###### ➤ Database Login

Once a database created, a user can login to his/her database and, after which he/she can work with the objects in the database. In case of Oracle, we can automatically log into the default database of Oracle and we can login into the same as different users.

###### ➤ Database Rename

A database in MSSQL server can rename by selecting the corresponding option.

###### ➤ Database Drop

There is an option provided for dropping an already existing database when the GUI connected to the MSSQL Server.

###### ➤ Database Profile

The user can monitor and view the database properties, like name, owner, and size, date of creation, status and contents.

###### ➤ Objects

The user can access the opened database through Graphical User Interface. Through this interface, the user can view and work with the database objects like tables, queries and reports.

###### ➤ Create Table

The user can create tables in the selected database. A design view provided, through which the user can simply enter the field name, select the data type from a select list. There are separate options for setting a field as primary, unique, or not null. There is also an option for adding checking constraint on a field or a default value in a field.

###### ➤ View Table

This option enables the user to view the contents (rows) in a table.

###### ➤ Execute Queries

The user can execute any query on the database using the user-friendly graphical interface. All the tables in the database listed, from which the user can select the one(s) in which he/she has to execute the query. The user can select the type of query to be executed (like select, update, make-table and delete). The field(s) in the table(s) in which the query has to execute can select from a list and the conditions can be input, all using the graphical interface. The conditions can include sorting (ascending,

descending or none), fields to displayed, criteria and any other specification, if any. The result of the query action exhibited.

➤ **Select**

User can first select a table, and then execute select query on it. Select query can execute in different ways:

- Specific fields or all fields in a table can display.
- Only distinct fields can display if required.
- Aggregate function can applied to a field selected
- Field or fields satisfying a specific condition can be selected
- Selection can also be made using Order by or Group by clause

➤ **Alter**

Any alteration on the table can make on a selected table using this option. Alterations that can be made includes the Following

- Alter the data type of a existing field in the selected table
- Altering the selected table by adding a new field to the table
- Altering the selected table by dropping an existing field in the table
- Altering the selected table by adding a constraint to a field in the table
- Altering the selected table by dropping a constraint specified on the field in the table

➤ **Update**

This option used for making any updating on a selected table. Any condition for updating can also specified if required.

➤ **Delete**

This option used for deleting rows from a selected table. Deletion can also perform by specifying condition so that only rows satisfying that condition deleted.

➤ **Drop**

This option allows a user to drop an already existing table from a database

➤ **Insert**

Using this option the user can insert rows into an existing table.

➤ **SQL query analyzer**

If required, the user can execute queries in SQL mode, not using the graphical interface. A separate workspace provided, where the query can be typed and executed.

The Feedback collection checked with two different database tools. The Micorsoft Corporation develops both. They are Microsoft Access, Microsoft SQL Server. While using the Microsoft Access tool the application not stored all the data to the database because the tool has not the backup media retention “Wait indefinitely” and “Recovery interval”. These two choices used to store the feedback to the database without missing. The Microsoft SQL Server tool fulfills these choices. The Existing System has used the Microsoft Access database tool and the proposed System has used to the Microsoft SQL Server Database tool.

**6. RESULT AND CONCLUSION:**

The Feedback is collecting from the Learners through Online using the Proposed System. While using the Existing System, the Number of receiving feedback is 82.38%. Nevertheless, the proposed system receives 98.74%.

TOTAL STRENGTH	FEEDBACK USING EXISTING SYSTEM	FEEDBACK USING PROPOSED SYSTEM
53	45	53
54	48	54
48	42	48
52	43	51
55	42	53
56	42	55

Table 6.1: The Number of Feedbacks collected from the Learners through Online.

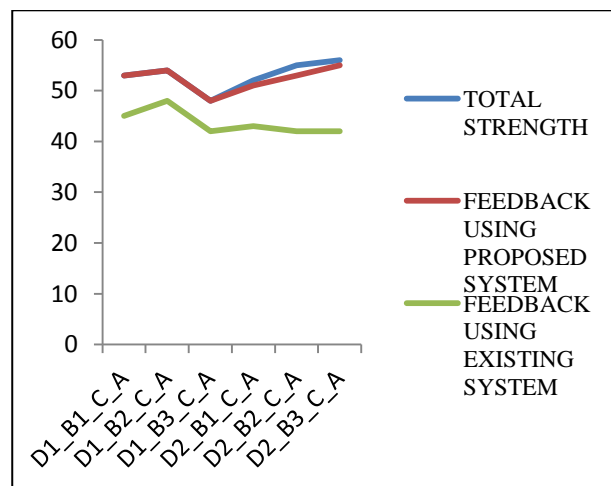


Figure 6.1: The Number of Feedbacks Collecting from the Learners through Online (Department, Branch, Class, and Section wise Analysis)

**7. FUTURE DEVELOPMENT:**

For making the system adaptive to the changing environment, it will be necessary that the system will be produce above the percentage, which provided by the proposed system.

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