

Improved Feedback System In Moodle

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ABSTRACT

With ongoing trend of digital world, the education firm also strives to maintain its pace with the current technology. Quality teaching plays a key role in contributing towards the development of any educational organization. To meet the purpose, a Faculty Feedback System is built over Moodle to improve and uplift the teaching standards. This system is designed to serve the dual purpose of faculty teaching development and classroom learning environment assessment. Faculty Feedback System can be used by Students, Professors and the Principal of an organization to maintain the records of faculty's performance in every term. The purpose of this paper is present an improved feedback version which can cater the professional institutions' need of assessment and quality improvement. Globally, education institutions have recognized the importance of student's expectations from teaching. So the Faculty Feedback System provides a platform for the faculties to understand the ratings of their lecture delivery as well as helps the students to put forth their review on teaching.

Keywords — Feedback System, Moodle, Secure, LMS, Paperless.

I. INTRODUCTION

Online assessment of classroom teaching processes has been the focus of numerous studies that examine the degree this method of evaluation imprints and promotes new ideas within an organization. Taking into account the faculty's teaching ideology and significance of student's perception on quality education a reliable faculty feedback system has been developed.

Moodle is an open-source Learning Management System (LMS) that aids in learning process for students as well as faculties. Moodle is an integrated system free with no licensing fees and flexible. It is backed by a strong community of dedicated full-time developers and network certified Moodle partners. Moodle is highly customizable and up-to-date wherein it supports user-defined modules. One such module that has been added to Moodle is the Faculty Feedback System (FFS). It is an exclusively paper-free and voluntary skill assessments program [1].

II. PAPER BASED SYSTEM

Paper based feedback system involves labor intensive work wherein the students will be given a feedback form in questionnaire format for submitting their rating. Ample amount of time gets wasted merely in distributing and collecting the feedback form. Unlike Moodle's feedback system there is no provision to check the authenticity of the feedback submitter and time restriction adds in as one more disadvantage.

The feedback details are stored in files sessionwise, termwise or yearwise. The department coordinator calculates the average of total ratings of each faculty manually and rates them within a scale of 1-5. Validity of data cannot be ensured as coordinators can be fallible. Hardcopy of the feedback

results of all faculties from each department is generated and then reviewed and signed by the higher authority. Analyzing and comparing faculty's previous and current performance becomes a cumbersome process. It is a long-delayed process which lacks efficiency and hinders the motive of elevating the learning environment.

III. PROPOSED SYSTEM

Faculty Feedback System is built over Moodle framework which uses Apache server and Mysql as backend. It is developed using PHP [2] and JavaScript [3]. It is supported by high configuration servers for scalability and reliability reasons subject to easy and convenient usage. It is designed to provide term-wise evaluation of faculty's performance for each semester.

Faculty Feedback System has four user roles: Admin, Faculty, Student and Principal. The system has a provision to add questions of choice to take the feedback. Admin activates the feedback form link for the students of particular class. Using Single Sign-On(SSO) [4] concept all stakeholders can access the feedback system with their existing credentials. The system has a provision to add questions of choice to take the feedback. Admin activates the feedback form link for the students of particular class. Students are provided with permanent Moodle userid by the admin using which they can access the feedback portal to submit the feedback only once for a term. As a reminder admin can also send email to the students. Feedback form is designed using questionnaires to rate the faculty's performance. The feedback submitted is stored in the database in an efficient manner in order to generate various reports for involved stake holders. The feedback results of each faculty are automatically generated by the system as soon as the feedback is submitted by the students. During beginning of each term the feedback status of

student is reset by the admin to grant access to the feedback form. With comparison to the existing system no mediator is required to calculate the results of feedback.

The Principal using his/her Moodle userid reviews the feedback results of each faculty from a department. An email is sent to the faculties whose feedback result has been assessed by the Principal. This system has provision to send specific comments to some faculty as well as to send general comment to all the faculties under review. The Principal can also view the previous comments given by him/her in order to track the improvement in the faculty’s performance as a result of those comments. Tracking the performance of faculties becomes simpler as the feedback details of previous terms are also made available by maintaining history of feedback records. Graphical representation of faculty’s ratings makes easier for review.

On receiving the email notification a faculty can log-in to the system using Moodle userid to view his/her teaching performance rating by the students for each course. Ratings are displayed on a scale of 1-5 for each category as theory, practical and tutorial, many more can be added as and when required. Faculty can download their feedback result in pdf format and efficiently track their progress through performance graph.

Faculty Feedback System also generates report on departmental feedback to evaluate the performance of overall department within the college which is required for various affiliation committees. Data manipulation of the feedback information is prevented at the best as secure computerized system is used. The number of features being implemented contributes to the success of this system.

Benefits:

- Improves the efficiency.
- Well-organized feedback information.
- Quick access to faculty’s performance details.
- Maintaining historical report of faculty’s feedback.
- Graphical representation of feedback results
- Provides user friendly environment.
- Generates department-wise feedback which aids in faculty training program.
- Email notification to faculties
- Allows the faculty to save the feedback results in pdf format.

The proposed Faculty Feedback System prevents identity disclosure of the student giving feedback. Implications in terms of emphasizing the process of lecture delivery, subject knowledge, command over class, punctuality, ability to impart knowledge, and incorporating varying perspectives, all which yields a comprehensive view of faculty teaching attributes and their relationship to student’s outlook of classroom environment. Valuing and taking effective feedback has recognized benefits for staffs as well as students of an institution.

Parameter	Moodle’s Inbuilt Feedback System	Proposed System	Paper Based System
Data Capturing	Online	Online	Offline
Availability	24x7	24x7	Specified time period
Modification of generated data	Respective faculty can modify the data	View only	Data not available
Data Processing	Automated	Automated	Manual
Performance Tracking	Summary available	Customized report generation	No such feature
Use for appraisal	No	Yes	Yes
Effectiveness	High	High	Low
Categorization	Not possible	Possible as per the requirement	Not possible
Security	High	High	Low
Authenticity	Yes	Yes	No
Notification	Yes	Yes	No
Result	Online + Excel	Online + Pdf	Hardcopy

IV. PARAMETERS FOR COMPARISON

V. SYSTEM FLOWCHART

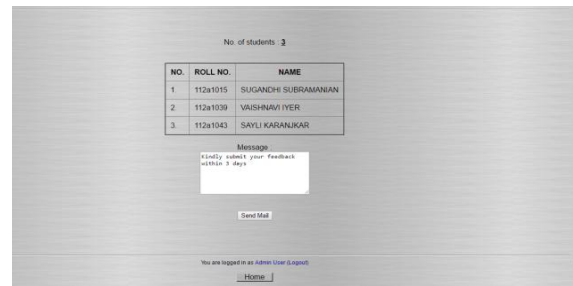
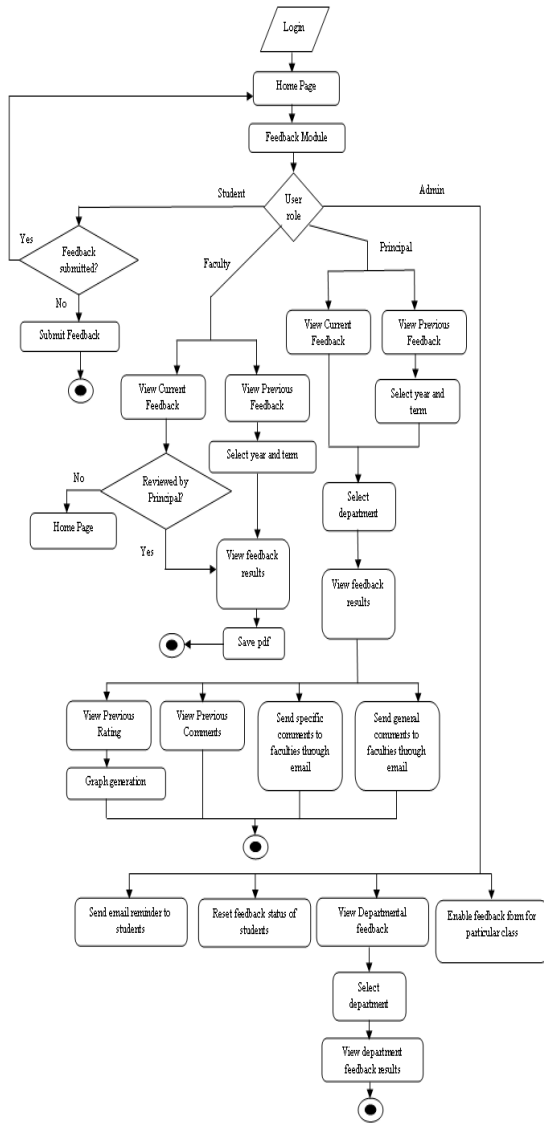


Fig.2. Feedback reminder through email

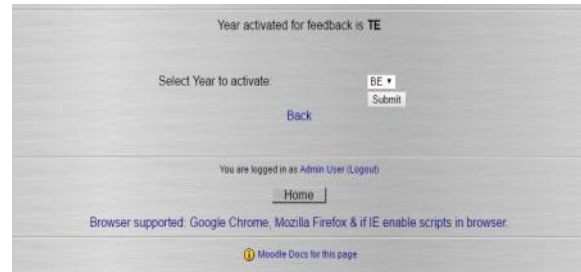


Fig.3. Screen to set activate feedback link for specific group

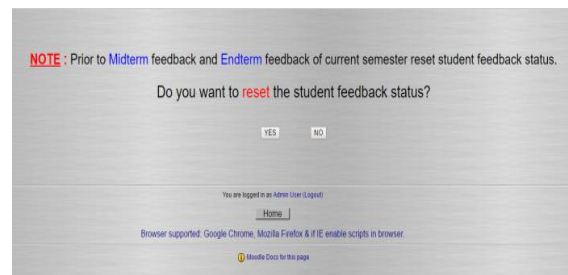


Fig.4. Screen for feedback table reset

[2015 - First Half - Midterm]

DEPARTMENTAL STUDENT'S FEEDBACK
(CE)

SIES Graduate School of Technology								
End of Semester Feedback for Department - CE : (2015 - First Half - Midterm)								
SR NO.	Particulars	Lecture Delivery	Subject Knowledge	Command Over Class	Punctuality	Ability to Impart Knowledge	Overall Rating	
(1)	THEORY	3.8	3.8	3.8	3.8	3.7	3.8	
(2)	PRACTICAL	3.8	3.8	3.8	3.8	3.8	3.8	
(3)	TUTORIAL	3.8	3.8	3.8	3.8	3.8	3.8	
OVERALL RATING: 3.8 3.8 3.8 3.8 3.8 3.8							PFT	3.8

Overall CE Feedback in Teaching-Learning-Process = 3.8

VIEW OTHER BRANCH FEEDBACK

Fig.5. Screen for higher management review

VI. FIGURE CAPTION

Admin Login:

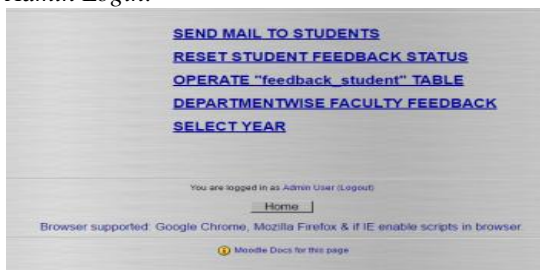


Fig.1. Options on Home Page

Student Login:

FEEDBACK FORM

TABLE.NO.1.1
1:Poor 2:Average 3: Satisfactory 4:Good 5:Excellent
Subject : CCL CE LAB DVC
Faculty : RIZWANA SHAIKH

CHARACTERISTICS	1	2	3	4	5
Lecture Delivery
Subject Knowledge
Command Over Class
Punctuality
Ability to Impart Knowledge
PFT used ?	0:	1:	2:	3:	4:

0: Not Applicable 1: Unnecessary 2: Poor 3: Average 4: Good 5: Excellent

TABLE.NO.1.2
1:Poor 2:Average 3: Satisfactory 4:Good 5:Excellent
Subject : PADS CE LAB DVC
Faculty : RAJESH KADU

CHARACTERISTICS	1	2	3	4	5
Lecture Delivery
Subject Knowledge
Command Over Class
Punctuality
Ability to Impart Knowledge
PFT used ?	0:	1:	2:	3:	4:

0: Not Applicable 1: Unnecessary 2: Poor 3: Average 4: Good 5: Excellent

Fig.6. Feedback screen

Principal Login:

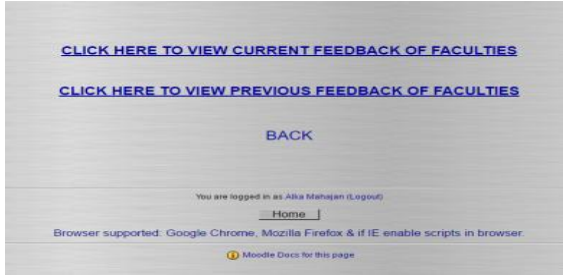


Fig.7. Feedback report options.

Faculty Login:



Fig.12. Options available to faculty



Fig.8. Screen to choose various options

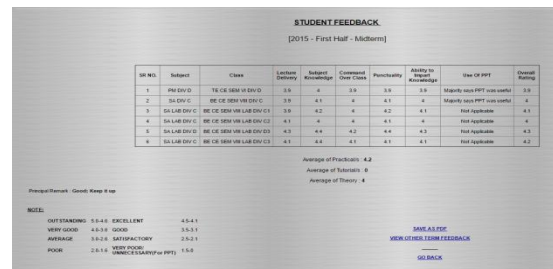


Fig.13. Selected feedback result

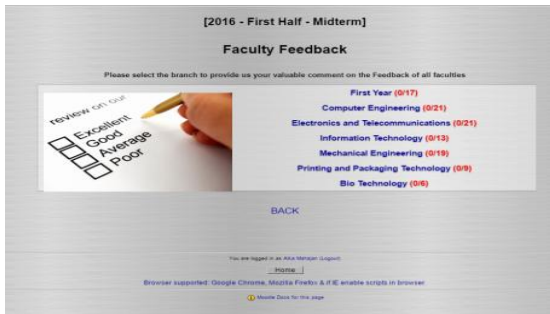


Fig.9. Department-wise summarized view

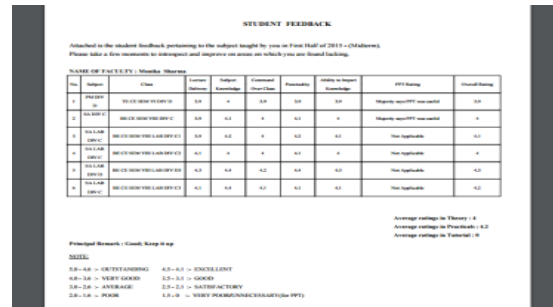


Fig.14. Pdf report

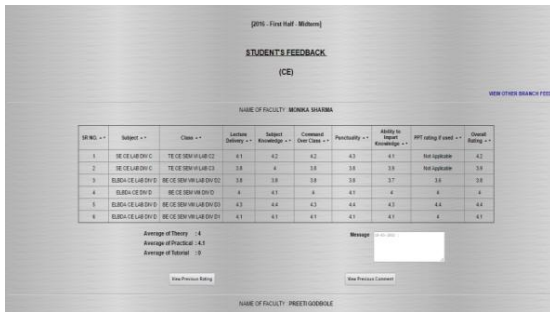


Fig.10. Department-wise detailed view

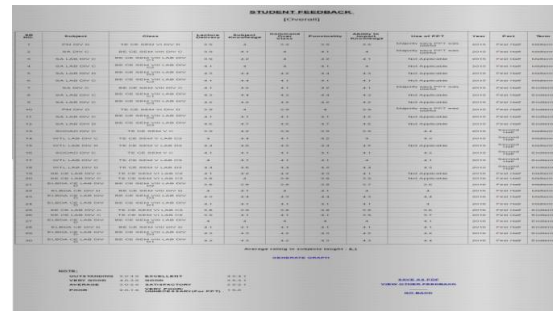


Fig.15. Overall feedback report



Fig.11. Email options for notification

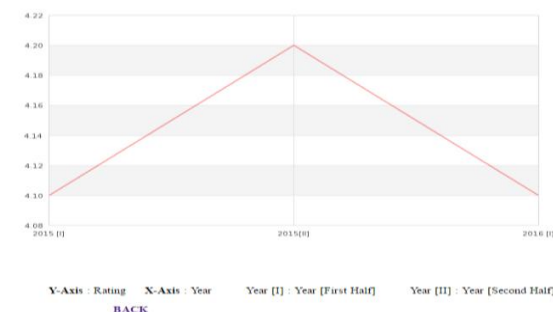


Fig.16. Performance graph

VII. CONCLUSIONS

The proposed system is more efficient than the existing system with respect to time and feedback result generation as well as its maintenance. Being a productive performance evaluation tool it forms a channel through which faculties get to know about their student's perspective on teaching standards and allows to elevate their performance. Systematic information helps the organization to recognize faculty's strengths and weaknesses and accordingly plan the training session. The primary advantage of this system is that it focuses more on analysis of the feedback results rather than on generation of feedback results. As a future scope a mobile

application will be developed considering the increasing rate of mobile users and ease of accessibility.

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