

OTES- Online Teacher Evaluation System

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Abstract

Online teacher evaluation system plays an important role in the university. At the end of every semester the Quality Enhancement Cell (QEC) of the university performs a teacher evaluation, but they are facing some problems like security, time consuming and incorrect results evaluation as their system is manual and are not computerized. This project is a web based application through which the student can access it from everywhere when admin enable it for evaluation and save their time to fill the proforma efficiently. When students fill the teacher proforma and click the submit button then the record will save in database which is secured. In this website, we have two main parts; the one is the administration section which covers all the administrative data and entries made by students regarding teacher evaluation. The administrator can add/update the new departments, programs, sessions, teacher names and subject names to the website. The admin can also add specific programs with specific department and also specific subject give to specific teacher, one teacher can teach more than one subject. The second one is student section in which student can access the online teacher evaluation system and select their department along with program, session, semester, subject name and teacher name. After that, the students fill the teacher evaluation proforma including of 20 questions from different perspectives and then submit it. At the end, the record is saved in the database and automatically calculates the results and the admin can view and print the result. The proposed system can save resources like paper print, time and efforts.

Key words: Evaluation system, online teacher evaluation, teacher evaluation System, assessment system

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1. Introduction

Online system neglects the manual system because manual process has many problems about time, cost and result issues. The online evaluation system is also known as automation base system because in online system have fix some formulas and online availability of records. When user performs the evaluation process then result is automatically generated. Online system is also provides improvement in learning, because through evaluation the teacher, classrooms and syllabus problems have been finding. So Online Teacher Evaluation System is automation web base software. It will be use in our university for the teacher evaluation purpose.

At the end of every semester QEC department perform evaluation but that method is manually and it has some problems, like security, time consuming and incorrect result. So we have developed the online teacher evaluation system and fix all the manual system problems. Unlike traditional system, in which every subject have its own proforma, the students fill those proformas manually on page and submit that to QEC staff members, then QEC staff generate the result from those all proformas. The main problem in the manual process is that it is more time consuming, more costly and giving less accurate result i.e. for one evaluation result they takes minimum 3 months and the financial cost is more than 50,000/- (fifty thousand). So in OTES system we have fixed the manual system problems like cost, physical efforts and time consuming. So in OTES have two main components one is the admin section and the other one is the user/ student section, admin control the all online system also provide the facility to student for evaluation while the students only access to OTES System through login and performing evaluation.

2. Literature study

Many universities are asking from his students to complete their evaluation after course completions, so the evaluation system improves the teaching qualities, salary improvement, and promotion and also for merit consideration. It is main advantage is that fast feedback, less expensive and less time consuming[1].The Tennessee Value-Added Assessment System (TVAAS) was developed for the purpose of evaluation to estimate the teacher effect on the students, class size, and student's achievement level [2]. Through teacher evaluation most of the problems is significantly and frequently solved. The state of teacher evaluation spends \$400 billion annually on salaries and benefits, because through teacher evaluation promotes the teaching in the nations of classrooms. It's the power full tool for teaching and school improvements [3].

In this book have been discussed the problems of teacher about their teaching methods and the authors identify the institute principals to follow the evaluation process to carry out meaningful teachers. They also evaluate the problems and then solve these problems [4].The term teacher evaluation means that

bring fear/good, finding weaknesses of staff including teachers and administrator and also they learn from it to solve or fix your issues [5]. With the help of teacher evaluation identifies the teacher behavior, learning perceptions and also the cognitive learning [6]. Teacher evaluation system focus on teacher qualities and also it is the powerful tool for school improvement. When Administrations goes to evaluation they check the classrooms condition and teacher behavior and also check the quality of instructions [7].

Evaluation system focuses on the following problems: a) set goal (to provides a better way for learning), b) focus on teaching (to remove bad qualities of instructor), and c) check the classrooms conditions (to improve more good environment for learning to students) [8]. Teacher evaluation is more important for school system and teachers because at the end of evaluation it helps for school structure, manage the education qualities and also reward the teacher. Teacher evaluation also demonstrates the educational standards, academic discipline and salary improvements for professional teacher [9]. We apply the evaluation system on teacher to investigate the reliability of score and validity of teaching methods. We also focus on the production of high quality observational score, in this we judge the teacher record that how many lessons are teaches by a teacher in a year [10].

3 .Methodology

In methodology we covered all those aspects when we were used in the developing of OTES system like tools, OTES section/ architecture and usage etc.

3.1 Our propose system (OTES-Online Teacher Evaluation System):

We have developed an OTES- Online Teacher Evaluation System for our university because QEC department follow the manual system. In the manual system have many problems, when QEC perform evaluation they have faces the following problems a) manually not computerized b) more time consuming (for one evaluation take minimum 3months) c) costly (the cost of one evaluation is more than 50,000) d) inaccurate result (in result may have some mistakes, sometime favoritism). In OTES we have tried to fix the above manual system problems.

For OTES system we have use these tools: Php language, Ajax language, and Mysqli database and xampp server. In database we have created more tables; data save in database through queries and also retrieve them by queries. For example when students perform evaluation, the data store in score table through insert query and admin can retrieve the result data through select query from score table.

3.2 Architecture:

There are four basic components in this Teacher Evaluation System. Before all the user or student must evaluate the teacher proforma including of 20 questions with multiple answers and then submit to

save that in database. Students can access this system through only Google server. All teachers' evaluation data and its automatic generated result are stores in database. Only admin can access the database to retrieve the individual teacher or department wise result and can save it in pdf form.

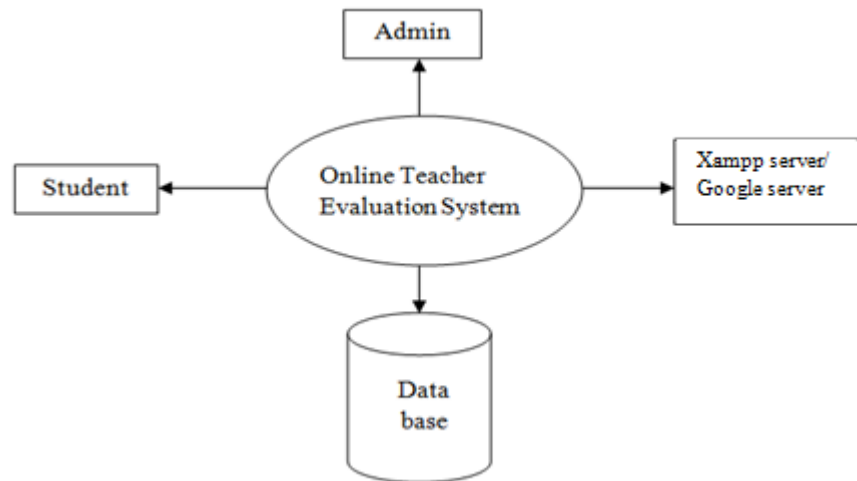


Figure 1.OTES System Architecture

3.3 Student Access

Students access to OTES system and create login for the evaluation process. In registration form student put the following information: name, department name, program name, semester number, registration number*, email address and password. The registration number is already putted by admin before user registration; if student put the incorrect registration number then they can't create login. if the password forgotten then student can recover it through that email when they put it in first time registration. After that the students login for evaluation.

Students can perform the evaluation process using the following steps:

- Browse the website in suitable browser.
- If the student created the login in previous semester so in current semester they can update your semester (updating of semester is once).
- Select department name for example computer science.
- Select your subject name for example Compiler Construction.
- Select that teacher name, who teaches the compiler construction.
- Select your current session for example fall 2019.
- Then select the suitable answers for the given questions, including 20 questions.
- After all these then click the submit button to save the record in database.

The following DFD diagram represents the above statements;

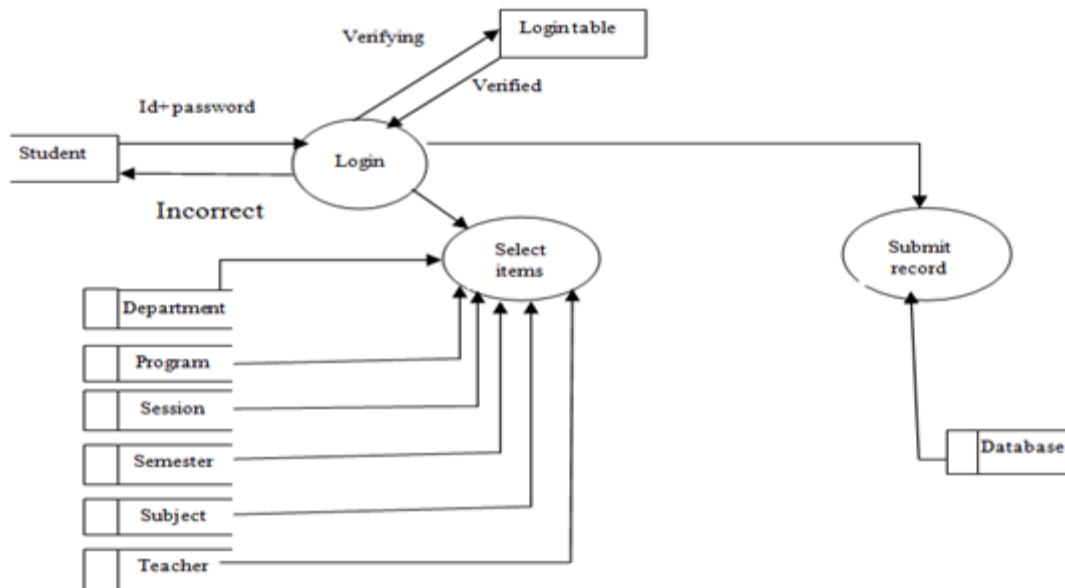


Figure 2 Data Flow Diagram for Student Access

For the selection of items from combo box we use the Ajax tool, so Ajax web application work on java-script. Java-script creates the xml-http-request object and that object sends the request to server. Server processes the http-request and gives a response back to browser; the browser receives the response from server and updates the page without reloading or refreshing.

3.4 Admin Access

Admin enters in admin panel if they put correct username and password, the password and username are saved in database, after that they can add/updates items, view result of the evaluation in term of individual teacher name or departmental wise, and also enable/disable semester option for student.

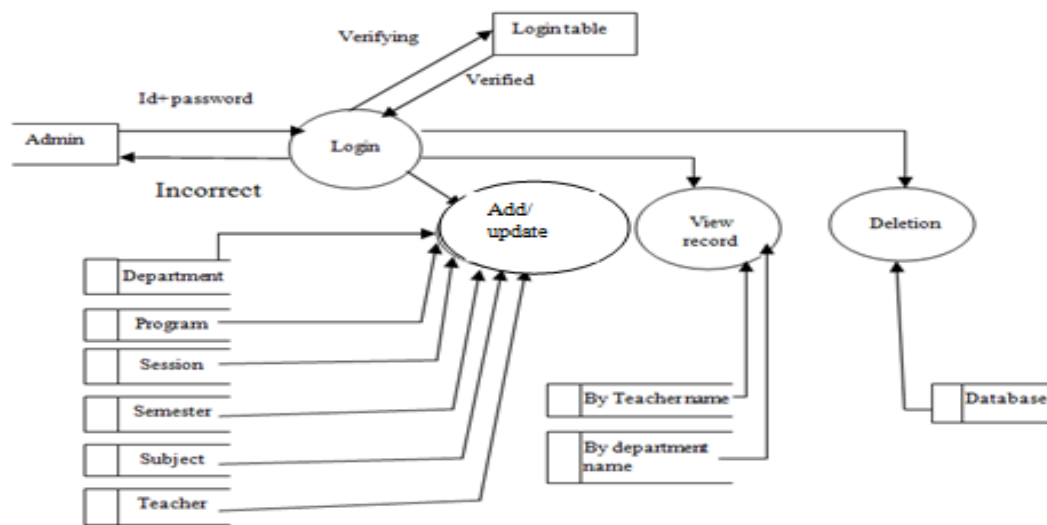


Figure 3 Data Flow Diagram for Admin Access

Admin can also change your password from admin panel, for change your password first enter old and then type new password two times, the new password replaced by old password.

4. Conclusion

The main theme of this web base software is that to improve the teacher qualities and skills according to teaching as well as lesson report and also convert the manual system into computerize system because computerize system is a) to give accurate result in more less time as compare to previous system b) costless c) time saving d) online availability of record e) access from everywhere. It's very easy way to determine the overall evaluation of the university teachers and syllabus.

In future we can add the course evaluation system in OTES, Research Student Progress Review Form, Faculty Course Review Report, Faculty Resume, Employer Survey, and Survey of Department offering PHD programs.

References

- [1] Anderson, Heidi M., Jeff Cain, and Eleanora Bird. "Online student course evaluations: review of literature and a pilot study." *American Journal of Pharmaceutical Education* 69.1 (2005): 5.
- [2] Sanders, William L., S. Paul Wright, and Sandra P. Horn. "Teacher and classroom context effects on student achievement: Implications for teacher evaluation." *Journal of personnel evaluation in education* 11.1 (1997): 57-67.

[3] Toch, Thomas, and Robert Rothman. "Rush to Judgment: Teacher Evaluation in Public Education. Education Sector Reports." *Education Sector* (2008).

[4] McLaughlin, MilbreyWallin, and R. Scott Pfeifer. *Teacher Evaluation: Improvement, Accountability, and Effective Learning*. Teachers College Press, Teachers College, Columbia University, New York, NY 10027, 1988.

[5] Danielson, Charlotte, and Thomas L. McGreal. *Teacher evaluation to enhance professional practice*. Ascd, 2000.

[6] Teven, Jason J., and James C. McCroskey. "The relationship of perceived teacher caring with student learning and teacher evaluation." *Communication Education* 46.1 (1997): 1-9.

[7] Toch, Thomas. "Fixing Teacher Evaluation." *Educational Leadership* 66.2 (2008): 32-37.

[8] McGreal, Thomas L. *Successful Teacher Evaluation*. Publications, Association for Supervision and Curriculum Development, 225 North Washington Street, Alexandria, VA 22314 (Stock No. 611-83300; \$8.75)., 1983.

[9] Wise, Arthur E., et al. "Teacher evaluation: A study of effective practices." *The elementary school journal* 86.1 (1985): 61-121.

[10] Herlihy, Corinne, et al. "State and local efforts to investigate the validity and reliability of score from teacher evaluation system." *Teachers College Record* 116.1(2014):1-28.