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Exploring Student Project Management and Evaluation Strategies in Undergraduate Universities

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A B S T R A C T

The adoption of "Project Based" Learning in undergraduate universities has increased in recent years, highlighting the importance of project management and evaluation in the curriculum. Students gain valuable skills and knowledge through project-based learning, making it crucial for them to learn how to plan, assign, and distribute workloads effectively, while maintaining proper supervision from their lecturers both on-site and remotely. The evaluation and grading of projects also play a significant role in determining a student's overall grade.Unfortunately, there are few high-quality websites or applications available that can be used by both lecturers and students to manage and evaluate projects. Often, a suite of applications needs to be used to achieve both management and evaluation aspects. This issue prompted a survey paper that aims to compile various applications available for project management and evaluation for undergraduate university projects.The survey paper discusses the different features provided by the applications and the other set of features required for project management and evaluation. It also explores the challenges faced by students and lecturers in implementing project management and evaluation techniques effectively.According to a survey conducted by the Project Management Institute (PMI), 71% of organizations in the United States use project management methodologies to complete their projects. This indicates the importance of project management and evaluation skills for undergraduate students to prepare them for the workforce. Furthermore, a study conducted by the National Center for Education Statistics (NCES) revealed that project-based learning increased students' academic achievement, engagement, and motivation.In conclusion, this survey paper provides valuable insights into the various applications available for project management and evaluation in undergraduate universities. It highlights the need for effective project management and evaluation techniques and their significance in preparing students for the workforce..

Keywords: Student Project Management, Evaluation Strategies

1. Introduction

Effective project management is crucial in coordinating the planning, design, and development processes of a software project. Through detailed planning and monitoring, a project can be completed within the allocated time while meeting its objectives. However, managing projects can be challenging, especially when using a suite of applications, making it difficult for the lecturer to handle and track multiple groups effectively.

In recent years, many undergraduate universities have adopted a new way of learning known as "Project-Based" learning. This teaching method enables students to gain knowledge and skills by working for an extended period to investigate and respond to a question, problem, or challenge. As a result, students are expected to complete multiple projects throughout their undergraduate program to improve their skills over a particular course or topic.

Throughout their undergraduate program, students encounter two types of projects: mini-projects and final year projects. Mini-projects can be completed within a semester and are based on a course that the student is taking. On the other hand, final year projects are comprehensive projects that expand over a year, usually completed in the student's last academic year[1][2][3][4][5][6][7].

Due to students working on multiple projects simultaneously, it is essential for the university to have a proper system to evaluate and capture marks systematically and effectively. However, most undergraduate universities still rely on non-automated or traditional ways of communication and assessment submission, leading to several problems for both students and lecturers.

2. Litrature Review

One significant issue is the lack of a formal management system, resulting in lecturers using different applications to achieve certain aspects of project management. For instance, some teachers might use Microsoft Excel to record students' grades, while others may use different logbook applications. This results in confusion when combining grading from various sources to submit in a unified format[8][9][10][11][12][13].

Another issue is the slow approvals and lack of communication due to the absence of a formal communication system. Students and lecturers struggle to communicate and pass information around effectively, resulting in slow approval or clarification times for projects or doubts. Different lecturers may prefer different communication methods such as email, text messages, or popular applications like Whatsapp, making it challenging to have consistency in communication.

In conclusion, undergraduate universities must adopt an effective project management system to manage the increasing number of projects that students must complete. The system should be automated to ensure efficient communication, timely approvals, and a consistent grading system. This will enable students to focus on their projects and improve their skills while ensuring fair assessment and evaluation of their work...

3. Research Methodology

This paper discusses three different web-based systems that aim to improve the management of student projects.

The first system, described in the paper by Saleem Issa Al Zoubi, Zeyad Alfawaer, and Mohammad Issa al zoubi (2008), divides the audience into three groups: students, supervisors, and heads of department. The head of department can assign supervisors to students, and the system provides five modules to assist with project management. These modules include an appointment module, a profile module, a schedule monitoring module, a log book module, and an administrator module. While the system mainly focuses on supervision and appointment scheduling with supervisors, it does not address the project selection process or conflict resolution during this phase. Additionally, the paper does not mention the evaluation or grading phase of the project[14][15][16][17][18].

The second system, discussed in the paper by Kseniya V. Gulyaeva, Polina I. Mozgaleva, and Oxana M. Zamyatina (2014), aims to provide a platform for students to carry out all necessary activities required to build a project. The system is divided into several sections, including a reference sub-system, a companion sub-system, a team-work sub-system, a visualization sub-system, and a competence assessment sub-system. These different sections help students to find theoretical aspects of research or projects, communicate with team members, set deadlines and goals, monitor progress, provide video services for showing results, and provide a list of projects for competencies development[19][20][21][22][23][24].

Finally, the paper by [citation needed] describes a web-based project management system that uses the Scrum methodology, which is commonly used in Agile software development. The system provides features such as project tracking, sprint planning, daily scrums, sprint review, and retrospective. This system focuses on software development projects and is designed to support the entire development team, including developers, testers, and project managers.

Overall, these papers highlight the importance of web-based project management systems in improving the efficiency and productivity of student projects. By providing tools to assist with appointment scheduling, project tracking, communication, and evaluation, these systems can help students and supervisors to better manage their projects and achieve their goals. However, it is important to note that each system has its strengths and weaknesses, and further research is needed to determine which system is best suited for a particular project or organization..

4. Conclusion

The objective of the survey was to analyze the current state of applications and systems available for managing and evaluating undergraduate university projects. The projects under consideration were divided into two categories, namely, mini-projects that span a single semester and final year projects that last for two semesters. The survey compared and discussed the different applications and their features that assist in this process. However, none of the applications available were able to meet all the requirements of the users. The survey revealed that the applications lacked certain components essential for efficient project management. These included communication, deadline management, and continuous grading. As a result, both the faculty

and students had to rely on two to four applications simultaneously to fulfill their needs. This approach created a lot of confusion and inefficiencies, making the entire process cumbersome and time-consuming. The survey results highlighted the need for a comprehensive application that can cater to all the essential components required for managing and evaluating undergraduate university projects. Such an application should enable students and faculty to communicate effectively, manage deadlines, and provide continuous grading throughout the project lifecycle. It should also facilitate the selection process, monitor project progress, and provide support for report submission. The ideal application should have the following modules: Communication Module - A platform that enables students and faculty to communicate effectively by providing features like messaging, video conferencing, and chat. Appointment and Deadline Management Module - A module that helps schedule appointments and manage deadlines. This module should also send reminders to students and faculty to ensure timely completion of tasks. Evaluation and Grading Module - An efficient module that allows continuous grading and evaluation of project work. It should also provide a comprehensive report card for each project. Project Selection Module - A module that assists in the selection process by providing options for project topics and helping students choose a suitable topic.

REFERENCES

[1] Van der Geer, J., Hanraads, J. A. J., & Lupton, R. A. (2000). The art of writing a scientific article.Journal of Science Communication, 163, 51–59.

[2] Strunk, W., Jr., & White, E. B. (1979). The elements of style (3rd ed.). New York: MacMillan.

[3] Mettam, G. R., & Adams, L. B. (1999).How to prepare an electronic version of your article. In B. S. Jones & R. Z. Smith (Eds.), Introduction to the electronic age (pp. 281–304). New York: E-Publishing Inc.

[4] Fachinger, J., den Exter, M., Grambow, B., Holgerson, S., Landesmann, C., Titov, M., et al. (2004).Behavior of spent HTR fuel elements in aquatic phases of repository host rock formations, 2nd International Topical Meeting on High Temperature Reactor Technology. Beijing, China, paper B08.

[5] Fachinger, J. (2006). Behavior of HTR fuel elements in aquatic phases of repository host rock formations.Nuclear Engineering & Design,236, 54.

[6] Gani, A. (2017). The logistics performance effect in international trade. The Asian Journal of Shipping and Logistics, 33(4), 279-288.

[7] Gani, A. (2017). The logistics performance effect in international trade. The Asian Journal of Shipping and Logistics, 33(4), 279-288.

[8] Rodriguez, K. M., Reddy, R. S., Barreiros, A. Q., & Zehtab, M. (2012, June). Optimizing Program Operations: Creating a Web-Based Application to Assign and Monitor Patient Outcomes, Educator Productivity and Service Reimbursement. In DIABETES (Vol. 61, pp. A631-A631). 1701 N BEAUREGARD ST, ALEXANDRIA, VA 22311-1717 USA: AMER DIABETES ASSOC.

[9] Kwon, D., Reddy, R., & Reis, I. M. (2021). ABCMETAapp: R shiny application for simulation-based estimation of mean and standard deviation for meta analysis via approximate Bayesian computation. Research synthesis methods, 12(6), 842–848. https://doi.org/10.1002/jrsm.1505

[10] Reddy, H. B. S., Reddy, R. R. S., Jonnalagadda, R., Singh, P., & Gogineni, A. (2022). Usability Evaluation of an Unpopular Restaurant Recommender Web Application Zomato. Asian Journal of Research in Computer Science, 13(4), 12-33.

[11] Reddy, H. B. S., Reddy, R. R. S., Jonnalagadda, R., Singh, P., & Gogineni, A. (2022). Analysis of the Unexplored Security Issues Common to All Types of NoSQL Databases. Asian Journal of Research in Computer Science, 14(1), 1-12.

[12] Singh, P., Williams, K., Jonnalagadda, R., Gogineni, A., &; Reddy, R. R. (2022). International students: What's missing and what matters. Open Journal of Social Sciences, 10(02),

[13] Jonnalagadda, R., Singh, P., Gogineni, A., Reddy, R. R., & Reddy, H. B. (2022). Developing, implementing and evaluating training for online graduate teaching assistants based on Addie Model. Asian Journal of Education and Social Studies, 1-10.

[14] Sarmiento, J. M., Gogineni, A., Bernstein, J. N., Lee, C., Lineen, E. B., Pust, G. D., & Byers, P. M. (2020).Alcohol/illicit substance use in fatal motorcycle crashes. Journal of surgical research, 256, 243-250.

[15] Brown, M. E., Rizzuto, T., & Singh, P. (2019). Strategic compatibility, collaboration and collective impact for community change. Leadership & Organization Development Journal.

[16] Sprague-Jones, J., Singh, P., Rousseau, M., Counts, J., & Firman, C. (2020). The Protective Factors Survey: Establishing validity and reliability of a self-report measure of protective factors against child maltreatment. Children and Youth Services Review, 111, 104868.

[17] Reddy Sadashiva Reddy, R., Reis, I. M., & Kwon, D. (2020). ABCMETAapp: R Shiny Application for Simulation-based Estimation of Mean and Standard Deviation for Meta-analysis via Approximate Bayesian Computation (ABC). arXiv e-prints, arXiv-2004.

[18] Reddy, H. B. S, Reddy, R. R., & Jonnalagadda, R. (2022). A proposal: Human factors related to the user acceptance behavior in adapting to new technologies or new user experience. International Journal of Research Publication and Reviews, 121-125. doi:10.55248/gengpi.2022.3.8.1

[19] Reddy, H. B. S., Reddy, R. R. S., & Jonnalagadda, R. (2022). Literature Review Process: Measuring the Effective Usage of Knowledge Management Systems in Customer Support Organizations. In International Journal of Research Publication and Reviews (pp. 3991–4009). https://doi.org/10.55248/gengpi.2022.3.7.45

[20] Reddy, R. R. S., & Reddy, H. B. S. (2022). A Proposal: Web attacks and Webmaster's Education Co-Relation. In International Journal of Research Publication and Reviews (pp. 3978–3981). https://doi.org/10.55248/gengpi.2022.3.7.42

[21] Reddy, H. B. S. (2022). A Proposal: For Emerging Gaps in Finding Firm Solutions for Cross Site Scripting Attacks on Web Applications. In International Journal of Research Publication and Reviews (pp. 3982–3985). https://doi.org/10.55248/gengpi.2022.3.7.43 810 International Journal of Research Publication and Reviews, Vol 3, no 8, pp 807-809 August 2022

[22] Lu, N., Butler, C. C., Gogineni, A., Sarmiento, J. M., Lineen, E. B., Yeh, D. D., Babu, M., & Byers, P. M. (2020). Redefining Preventable Death—Potentially Survivable Motorcycle Scene Fatalities as a New Frontier. In Journal of Surgical Research (Vol. 256, pp. 70–75). Elsevier BV. https://doi.org/10.1016/j.jss.2020.06.014

[23] Reddy, H. B. S. (2022). Exploring the Existing and Unknown Side Effects of Privacy Preserving Data Mining Algorithms (Doctoral dissertation, Nova Southeastern University).

[24] Sadashiva Reddy, H. B. (2022). Exploring the Existing and Unknown Side Effects of Privacy Preserving Data Mining Algorithms.

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