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# Unified Portal for Developing Model Curriculum for Universities

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*Abstract: In the present work, the unified website portal is developed with the model curriculum for the universities. This website aims to change the planning, making as well as delivery of college courses by creating room for interdisciplinary collaboration and ensuring that it can adapt to technological developments. The current study presents the "Unified Portal for Model Curriculum Development for Universities," a pioneering initiative in higher education. The portal recognizes the urgent need for new, collaborative, and less complicated approaches to curriculum development. The paper covers case studies, recommended practices, and feedback from early adopters. It discusses the advantages and potential disadvantages associated with having single portals. By giving rise to a centralized platform meant for developing curriculum. This portal becomes useful in terms of improving students' overall performance levels, raising standards within programs according to educational demands. This website portal can change college lessons and create a quality, innovative, and interactive system in higher education. Finally, transforming the educational approach with the use of a single portal is advantageous.*
*Keywords: curriculum development, higher education, collaboration, adaptability, unified portal.*

## I. INTRODUCTION

This study presents the creation of an integrated platform to accelerate the development of a university model curriculum. Assessment of the need for a standardized curriculum, development, and implementation of a portal, and evaluation of its effectiveness are all part of the academic project The study uses data from multiple colleges to ensure sampling of the curriculum is practical and flexible. The portal is designed with a user-friendly interface that combines capabilities including data entry, course mapping, and version control. The results show the benefits of a portal in terms of accuracy, productivity, and teamwork. The portal has dramatically reduced the time and effort required to create a simulation study while encouraging consistency and quality of learning. This research enhances the educational management profession by providing a useful tool in curriculum development, which in turn can improve students' educational experiences. Future developments include linking the portal with other education systems and expanding its flexibility to include additional areas.

## II. LITERATURE SURVEY

The literature survey focuses on unified portal designs, implementations, and evaluation for curriculum development in universities. Challenges involved with the integration of diverse resources and processes in developing a unified portal were highlighted in [1]. The lack of empirical evidence regarding the advantages or challenges of unified portals has been detailed in [2]. It has been found by comparing the diverse approaches to creating unified portals; however, it spends little time on the portal's actual development [3]. Another researcher has done the empirical study of implementing a unified portal for curriculum development at a university but has some shortcomings like neglecting to elaborate on selection criteria for an open-source platform [4].

In a large university, the implementation was done under the case study [5] of a unified portal for model curriculum development in which diverse resources and processes were integrated with few considerations on challenges encountered when implementing the portal. The study [6] being presented here investigates open-source platforms for developing unified portals but there is no empirical evidence available as regards their advantages and disadvantages. Furthermore, a university-specific case study on mode curriculum development deployment using a unified portal system [7]. The paper has fewer details concerning certain difficulties experienced during the implementation of these portals. However, big data analytics and artificial intelligence are also utilized for building unified portals for curriculum development, albeit giving less consideration to portal implementation. The literature review confirms the necessity of further empirical studies on the benefits, problems, and use of unified portals for curriculum development at universities.

## III. METHODOLOGY

Curriculum development in universities requires a systematic approach to ensure the alignment of educational objectives with stakeholder needs and industry demands. The following methodology is adopted to develop a robust and relevant curriculum.

### A. Needs Assessment

The curriculum development process starts with a comprehensive needs assessment. This included qualitative interviews and focus groups with key factors such as faculty members, students, industry professionals, and accreditation bodies which were conducted to collect data [5]. Also, the quantitative data is gathered through surveys and literature reviews. The purpose of the need assessment is to identify deficiencies in the existing curricula and consider emerging trends as well as future demands from relevant industries.

### B. Objective Setting

Based on the needs assessment, clear and measurable curriculum goals were set. These goals were developed in collaboration with stakeholders to align with industry standards, accreditation requirements, and best teaching practices [4]. The criteria for setting the goals include the consideration of industry needs, societal relevance, and student learning outcomes.

### C. Content Development

Educators created the learning materials for specific goals. They talked to experts in their fields, researchers, and professionals. They include various viewpoints, real examples, and hands-on practice [6]. The experts made classes, websites, and tests. These tools assist students in understanding the lessons. The experts want the materials to be relevant, and current, and prepare students.

### D. Teaching Methods

Instructors are selecting the teaching methods based on their effectiveness in delivering the curriculum and achieving the desired learning goals [2]. Various instructional approaches, such as lectures, seminars, lab activities, case studies, and project-based learning are used to encourage active participation and skill development among students. The pedagogical strategies are chosen to accommodate diverse learning styles and preferences [7].

### E. Curriculum Mapping

Shaping the curriculum is a key goal. Linking learning aims with content and assessment methods is crucial. The mapping process unveiled core ideas, skills, and outcomes across courses at different program levels. This enabled proper course sequencing. It highlighted areas needing improvement, like redundancy or overlapping content [1]. Plus, it allows the blending of interdisciplinary themes seamlessly.

### F. Stakeholder Engagement

Getting input is crucial all through planning the courses. Different people have given their thoughts and feedback. Teachers have shared their expertise. Learners have voiced their perspectives [3]. Professionals from industries have provided insights. Groups that give official approval are evaluated. Everyone involved had chances to comment regularly.

### G. Iterative Development Process

The curriculum development process is iterative in nature and have multiple cycles of review, feedback, and revision [8]. Feedback loops are established to gather input from stakeholders at various stages of curriculum development, including initial planning, content development, and pilot testing. Iterative cycles allowed for continuous improvement and refinement of the curriculum based on emerging needs, challenges, and opportunities.

### H. Survey Results

The survey feedback provides the understating and opinion of the people about the curriculum and hope to see improvement [3]. The responses are analysed to find common topics and areas of concern. Key issues are needing better connection to industry needs, updated course content, and more chances for hands-on-learning experiences.
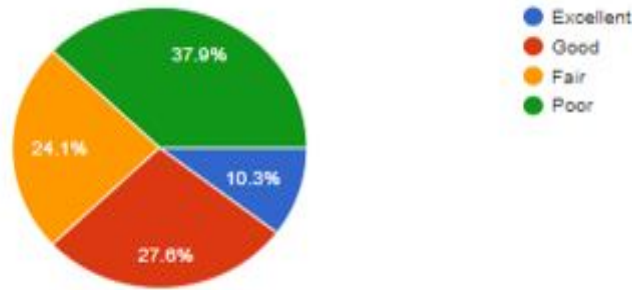
Fig. 1  Survey results for the satisfaction and utility of the existing curriculum portal

## IV. RESULT AND DISCUSSION

In the present work, the aforesaid methodology is adopted for developing the unified website portal with the model curriculum for the universities. Accordingly, the survey and feedback have been taken from the persons that are engaged with various professions including students, parents, educators, and industrial experts. It is reported that the mostly are not satisfied with the existing curriculum portal as presented in Fig. 1.  However, from the feedback, various suggestions have been received related to improvement in user interface, enhancement in collaboration features, streamlined workflow, better integration with other systems, advanced reporting, and analytics, etc. as illustrated in Fig. 2. Moreover, it may clear from the survey that the unified website portal with the model curriculum for the universities is highly demanded with the more improved features. Accordingly, the unified website portal is developed with the availability of various tools on the portal home page. The Java Servlet code has been developed for MySQL connection. It follows all the rules set by schools and companies. Students will learn what they need to after finishing this program. The home page contains various options to prepare the curriculum such as login form, accreditation information, instructional design tools, resources, collaboration, about, survey form, etc.
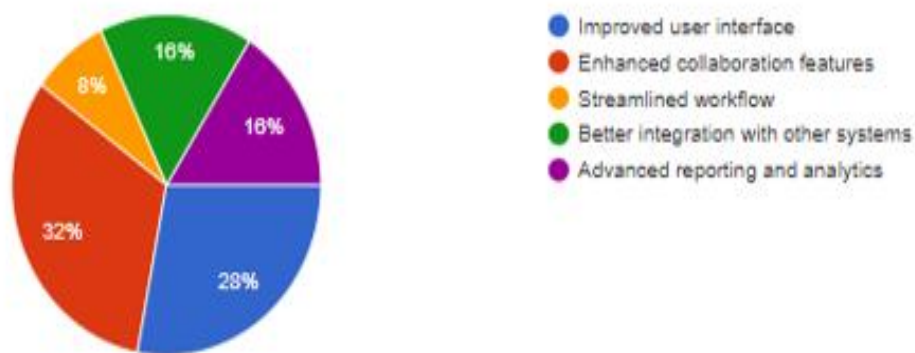


Fig. 2 Suggestions received from the survey for improving the existing portal

## V. CONCLUSIONS

The unified website portal is developed to model curriculum for the universities. The website provides flexibility to change the planning, making, and delivering the courses. This portal becomes useful in terms of improving students overall performance levels and raising standards within programs according to educational demands. It is developed through a user-centred approach that incorporates stakeholder input and user feedback. The portal offers solutions that streamline curriculum development processes, foster collaboration among educators and industry experts, and ultimately contribute to improved student performance. This integrated platform emerges as a valuable tool for enhancing instructional practices, promoting a collaborative learning environment, and fostering an overall improved student experience.

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