Republic of the Philippines
Laguna State Polytechnic University
Province of Laguna

COLLEGE OF COMPUTER STUDIES

Title Proposal

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Project Title: TeachMe: A Web-Based Tutoring Platform with Personalized Match Finder Integration for Local Learners	
Introduction	Over the course of a three-year study in California, McCarthy et al. (2020) found that a strengths-based blended customized learning model significantly improve student progress in reading, arithmetic, and language usage. In every academic subject, students who got personalized instruction has a better performance than their peers. These results show how important it is becoming to adapt instruction to each student's unique needs. Personalized learning if we apply it on tutoring is connecting students with a specialized subject tutor based on topic matter, way of teaching, availability, and sometimes even personality. It is not only offering academic assistance. But in local places like Sta. Cruz, Laguna, there aren't enough of these customized systems. Tutoring is still done informally, usually through personal recommendations or social media. This highlights the importance of an Online tutoring matching platform. TeachMe is an online tool that matches students with tutors who best suit their learning styles, improving academic performance and providing access to high-quality assistance. Based on the peer-to-peer preliminary interview that was conducted on Sta. Cruz, Laguna. Out of 30 randomly selected respondents, 100% of them are in favor in making a Web Application for Local Tutoring Services 70% of the respondents are Students (21). 16.7% of them were in Professional Fields Degree Holder (5). Lastly, 13.3% of them were Parents. The findings of the studies shows that the majority of the answer came from students. The most popular subject that the respondents chose is Math (15), followed by English (8) and lastly for both Science and History they got 3 each. The proponents' business model consists of two main options: a free version and a premium subscription plan. The premium version is a monthly subscription-based model, that offers privileges and features not available in the free plan such as ad-free experience and priority support. Also, a commission-based model will be implemented for pay-per-session tutoring services. Users will also have opportunity to choose between online payment methods or face-to-face transactions, depending on what they need and availability.
Statement of the Problem	The Local tutoring services currently lacking when it comes to accuracy and rely heavily on traditional or informal way of finding tutors, such as face to face referrals through colleagues. Many people also resort on using social media platforms that are not specifically designed for educational services, making them prone to misinformation, lacks of credibility, and potential scams. This type of inefficient system creates challenges in connecting qualified tutors with students in need of reliable academic support. The proponents are planning to solve the issues by creating a Web-Based Application that makes it easy and reliable for students to connect with qualified tutors. The app will be going to offer features like real-time availability, a matching system that aligns personality to tutors and students, and the ability to use it anytime, and anywhere.

	Also, the platform will be going to give the student tutors a chance to build their teaching skills and earn some extra money by having them offer their tutoring services in a safe and organized way.
Objective of the Study	**General Objective:** The general objective of this study is to develop a platform called **TeachMe: A Web-Based Tutoring Platform with Personalized Smart Match Integration for Local Learners**, which connects students and local tutors based on their academic needs, availability, and preferences through an intelligent recommendation system. **Specific Objectives:** 1. **To enable students to book tutoring sessions based on both student and tutor availability through a scheduling system.** a. Session booking b. Session scheduling management c. Notification system 2. **To implement a Smart Match feature that accurately pairs students with the most suitable tutors based on academic needs, learning styles, and preferences.** a. Student profile creation b. Tutor profile filtering c. Smart recommendation algorithm 3. **To provide a feedback and rating system for quality assurance and continuous service improvement.** a. Review system b. Feedback visibility c. Feedback analysis

Scope and Limitation of the Study	**System Features:** The platform will focus on three main features: 1. **Smart Tutor-Student Matching:** Connecting students with the most suitable tutors based on subject expertise, availability, academic needs, and preferences through a smart matching system. 2. **Session Booking & Scheduling:** Enabling students to book tutoring sessions based on the tutor's availability, with integrated scheduling functionality and automated notifications. 3. **Feedback System:** Allowing students to provide feedback on their tutoring sessions, helping improve the quality of the service through visible reviews and analysis. • **Research and Analysis:** The study will involve looking into the current tutoring methods through literature review, online research, and interviews. This will help us understand the gaps and needs in the existing system. • **System Design and Development:** The platform will be built with key features such as smart tutor-student matching, session booking, and a feedback system to ensure an easy and smooth user experience. • **Testing:** The system will undergo testing to evaluate its functionality, ease of use, and performance, ensuring everything works as expected. • **User Acceptance Testing:** We'll gather feedback from potential users to assess how well the platform meets their needs and how user-friendly it is. Yet, the study has its own limitations: • The study does not include online class tutoring services • The study does not include non-academic tutoring service
Review of Literatures and Related Systems	The researchers collected the information that are greatly related to the study. These related studies and literature are compiled in this section as a basis in the development of the system. Related studies and projects are listed below in thematic order: **Theme 1: Online Tutoring** According to McCarthy et al.'s (2020) study, "Strength-Based Customized Learning in Blended Environments," children who received individual and customized teaching performed noticeably better than their colleague in language, math, and reading. This concept was used in the study, however rather than developing a broad learning platform, the researchers suggested TeachMe, a local online tutoring platform made especially to pair students with tutors who are compatible with their preferred subjects, learning preferences, and availability. The system's goal is to offer individualized education that enhances academic achievement and supports students' learning progress, particularly in places with limited access to formal tutoring.

	Also, Devers et al.'s study from (2022) looked at how online tutoring affected students' academic performance. Depending on the number of tutoring hours and the student's level of difficulty, the study found that online tutoring explained anywhere from 6% to 18% of the variation in NWEA math progress scores; the more hours of tutoring required, the farther behind the student. This implies that online coaching may be a useful strategy for raising arithmetic proficiency among students. **Theme 2: Web-Based Educational Platforms** Web-based educational platforms have become essential to contemporary education. Their efficacy and influence on student outcomes have been examined in recent research. For example, St-Hilaire et al.'s study "Comparative Study of Learning Outcomes for Online Learning Platforms" (2021) looked at two online learning platforms: one that offered quizzes and standard lecture videos, and the other that offered individual problem-solving exercises with feedback. The results show a statistically significant improvement in learning outcomes on the platform that prioritized personalization and active learning, highlighting the significance of these elements in online learning. A study by Javed et al. (2025) called "Bridging Learning and Technology: How Digital Platforms Impact Academic Performance" looked at how university students' academic performance was affected by digital learning platforms. According to the study, learner engagement acted as a partly mediating factor in the favorable impact that digital learning platforms had on academic performance. Additionally, these platforms were more beneficial to pupils who were more effective in digital literacy. The study highlights how important it is to combine improved digital literacy programs with interactive learning strategies in order to optimize learning outcomes. **Theme 3: Peer-to-Peer Learning and Tutor Matching** Peer-to-peer learning, which uses student cooperation to improve learning results, has become a proficient educational strategy. Focusing on tutor matching and to optimize educational advantages that has been the subject of recent study. According to Lechuga, C. G., et. al (2022) A study called "Three Algorithms for Grouping Students: A Bridge Between Personalized Tutoring System Data and Classroom Pedagogy" looked at how to group students in situations where they were tutoring one another. Finding that the common matching technique, which pairs students based on supporting knowledge, produced more successful learning partnerships, the researchers compared three algorithms: score-based pairing, random pairing, and reciprocal pairing. This method makes sure that every student may gain from and contribute to the tutoring relationship, which improves the learning process as a whole. "A Comparison of Mathematics Achievement of Learners Who Learned Using Peer Tutoring Strategy and Those Who Learned Without Using Peer Tutoring" were a study conducted by Iyamuremye et al. (2025) that examined the effect of peer tutoring on mathematics achievement among secondary school students in Kiambu County, Kenya. A control group that used normal teaching techniques and an experimental group that used peer tutoring were compared using a quasi-experimental research design. The results showed that the experimental group outperformed the control group in mathematics, indicating a statistically significant difference in achievement. According to the study's findings, peer tutoring improves students' comprehension of

mathematical ideas and should be implemented in secondary schools to raise academic achievement.

In this section, the proponents will discuss the current state of technology and project related to the research topic.

Related Project:

Bahay Turo is a locally developed Filipino website managed by experienced educators, including founding Head Teachers such as Teacher Blessy and Teacher Bea, designed to connect students with reliable, skilled tutors around the Philippines. The platform's goal is to provide trustworthy tutoring opportunities by making the process of finding quality tutors. It features a system for scheduling and booking sessions based on tutor availability, along with a section dedicated to exam review tips to help students in their academic preparation.

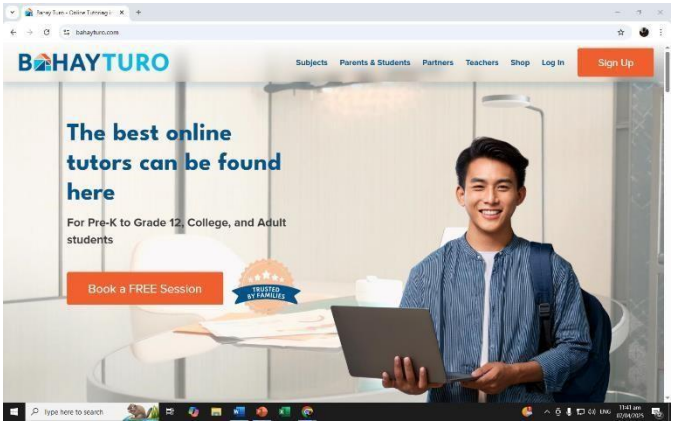

Figure 1. Bahay Turo Website

Also, previous researchers Hero Aki Juliano, Crisel Ann Ochoa, and Ellaine C. Palla created an online tutor and tutee platform with a ratings and comments system. With its newsfeed, "add tutor" feature, and extensive tutor profiles, this system gives customers a complete opportunity for interacting with high-quality tutoring services. By allowing users to rate and comment on teachers, the platform also promotes accountability and openness. Its interactive interface also makes it easier for tutors and tutees to communicate effectively, which improves the learning process as a whole

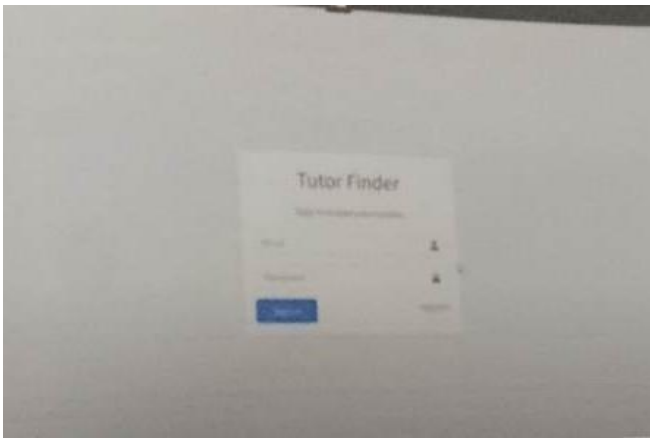

Figure 2. Online Tutor and Tutee Platform

Conceptual Framework

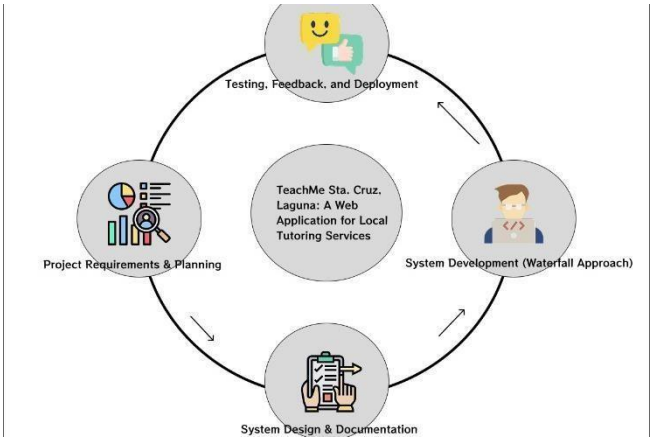

Figure 3. Conceptual Framework of TeachMe
Sta. Cruz, Laguna: A Web Application for Local Tutoring Services

The conceptual framework of the study illustrates how the research will be conducted. The framework reflects the research objectives and activities to be conducted.

SWOT ANALYSIS

Strengths	Weaknesses	Opportunities	Threats
• Personalized Matching: The smart matching system increases the chances of successful tutoring outcomes by aligning students with tutors who meet their specific academic needs and preferences. • User-Friendly Interface: The platform is designed to be easy to navigate, ensuring a smooth experience for both students and tutors.	• Dependent on Internet Access: Since it is web-based, users with poor or no internet connectivity may face difficulties accessing the platform. • Initial User Base Dependency: The success of the matching system relies heavily on the number of registered tutors and students; low participation may affect effectiveness.	• Partnerships with Local Schools or LGUs: Collaborating with educational institutions or local government units can increase user trust and platform adoption. • Gamification and Rewards: Implementing motivational features like badges or progress tracking can improve student engagement and satisfaction.	• Competition from Established Platforms: Well-known tutoring platforms with advanced features and larger user bases may attract potential users away from TeachMe. • Data Privacy and Security Concerns: Handling sensitive user information poses risks if not properly managed, which may affect user trust and compliance.

References	1. McCarthy et al. (2020) Strengths-based blended personalized learning: An impact study using virtual comparison group https://www.tandfonline.com/doi/abs/10.1080/15391523.2020.1716202 2. Devers et al.'s study (2022) Online Tutoring: Impact on Student Success https://www.learntechlib.org/p/221448/ 3. St-Hilaire et al.'s study "Comparative Study of Learning Outcomes for Online Learning Platforms" (2021) https://link.springer.com/chapter/10.1007/978-3-030-78270-2_59 4. Javed et al. (2025) called "Bridging Learning and Technology: How Digital Platforms Impact Academic Performance" https://www.jssarchives.com/index.php/Journal/article/view/154 5. Lechuga, C. G., et. al (2022) A study called "Three Algorithms for Grouping Students https://link.springer.com/article/10.1007/s40593-022-00309-y 6. A Comparison of Mathematics Achievement of Learners Who Learned Using Peer Tutoring Strategy and Those Who Learned Without Using Peer Tutoring were a study conducted by Iyamuremye et al. (2025) https://econpapers.repec.org/article/bcpjournl/v_3a8_3ay_3a2024_3ai_3a12_3ap_3a1830-1838.htm Related project Online Tutor and Tutee Finder - LSPU SCC Library Bahay Turo - www.bahayturo.com

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