

Introduction to Artificial Intelligence

Project Proposal – Cover Page

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| **Project Title:** |  | **Intake: UCDF2107ICT(DI)/(SE)** |
|  | **Name** | **Designation/Role** |
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Project Environment & Scope

(Please provide a detailed breakdown of areas to be implemented)

1) This project is implemented for: (Provide brief explanation)

*The purpose or what is the problem*

Shu-shu is our artificial intelligence language learning chatbot project, which aims at helping people **learn a new language** in a more convenient and personalized way. This bot **provides a variety of language learning methods**, including conversation scenarios, vocabulary, and grammar practice. The target user of this chatbot is mostly student aged 18 to 25. This is because they do not have extra income to pay for learning a new language. Hence, they prefer to use shu-shu chat box as it is free.

By offering scenario-based language learning, Shu-shu bots can provide users with **more attractive** and **relevant language learning experiences** and help them build their confidence and proficiency in the language. Furthermore, the process of learning a language requires time and effort. Users must spend their time practicing the language and reinforcing what there have learned. This may not be a flexible process, because it demands constant practice and exposure to the language. Shu-shu bot provides a **flexible platform** because it enables users to practice and advance their language abilities at their speed as they can open at any time. Besides, the Shu-shu chatbot allows users to **recognize their strengths and areas for language development** as it can receive an immediate response when the users input the word. This increases the accessibility and interaction among users of all skill levels, especially novice-level learners as they can correct any mistakes on time and build a good language foundation.

# 2) Is an expert system suitable for the problem area?

*Argue that the expert system will be able to help the users address some issues in the domain area.*

Yes, an expert system is suitable for the education domain area. **The quality of education** can be improved with the utilization of information technology (Supriyanto et al., 2018). An expert system can act as a consultant or teacher that explains and answers any inquiries asked by the students, and the students can make better decisions and solve problems much faster. Moreover, students can also **gain knowledge faster and more efficiently** from the expert system compared to searching for answers to a specific problem on the Internet. By implementing a language learning chatbot, students can learn a variety of languages other than their mother tongue to **enhance their interpersonal and communication skills**. Furthermore, there are many languages used by different people from different countries around the world, and some minor languages such as Latin had become dead languages due to no longer being spoken by those native speakers (Suzdaltsev, 2016). **To preserve a minor language**, a language chatbot can be used so that more people can be exposed to learn the minor language and prevent its extinction. Besides that, students can also **learn more about the usage of a specific term of a language** from the chatbot. For instance, several terms have more than one meaning in many other languages. With that, it helps the students to understand when to use the terms in different situations.

3) Is there a need for such a system? Justify.

*Justify that the domain needs your system with the impact and advantages*

Yes, there is a need for such a system. This is because this language-learning chatbot, it able to address various language-related issues faced by people from all around the world, such as communication problems during traveling, grammar issues for certain languages, and so on. Shu-shu, as a language learning chatbot, offers numerous benefits for the people who use it. First and foremost, one of the advantages of using this chatbot is that it helps people to **practice their language skills**. With this chatbot, the user can be able to learn the grammar rules for different foreign language such as Irish or Chinese, which are provided by the language expert. Thus, by using this chatbot, they can enhance their language proficiency. Besides that, another benefit of the language learning chatbot is **personalized learning**. This means that this chatbot will tailor the language learning based on the user’s level of proficiency and interest. Hence, the user will have a great experience when learning a new language by using Shu-shu. Furthermore, users can get **immediate feedback** from the language learning chatbot. When they are learning to speak the language, the chatbot can provide instant feedback on the user’s pronunciation and grammar which allows the user to correct their mistake. Therefore, the user will gain more interest in continuing to learn the language as they do not need to wait for the replies. Not only that, but **easy accessibility** is also the advantage of using language learning chatbots. As technology in the education sector has rapidly increased in recent years, the language learning chatbot provides users to practice their language skills anywhere. Meanwhile, the flexibility of Shu-shu helps to fit the busy schedule of the user as the chatbot is available anytime. As a result, the user will be more likely to use this chatbot as the easy accessibility makes their journey for learning the language easier.

4) This is a system for novice-level users.

This is because the chatbot is specially **made to offer users at the introductory level** a personalized and fun language-learning experience, this system includes a variety of language-learning approaches, such as vocabulary and grammar practice, as well as **conversation scenarios**, which is one of its key benefits for novice-level users. This range of techniques enables users at the beginner level to lay a solid language foundation, which is necessary to develop confidence and proficiency. The flexibility of the platform Shu-shu chatbot offers beginner users the to **learn a new language at their own pace** is another advantage. It takes time and effort to acquire a new language, and beginning speakers may require additional time to practice and solidify their knowledge. Shu-shu's adaptable platform enables users at the beginner level to practice and improve their language skills at their **own pace and convenience**. Moreover, the Shu-shu chatbot can help novice users by identifying their language development needs and strengths. They can **repair any errors** and **establish a solid language foundation** because the chatbot responds as soon as they submit the words. This characteristic makes the language **more approachable and social for beginners**, which motivates them to keep studying it.

Agreement/Approval

This will be approved in class – please attached with final documentation as reference upon submission on moodle

**References**

Supriyanto, G., Widiaty, I., Abdullah, A. G., & Mupita, J. (2018). Application of expert system for education. *IOP Conference Series*. <https://doi.org/10.1088/1757-899x/434/1/012304>

Suzdaltsev, J. (2016, September 18). How Did Latin Become A Dead Language? *Seeker*.<https://www.seeker.com/how-did-latin-become-a-dead-language-2008876974.html>