

1. プロジェクトタイトル Project Title: あなたのMoodle研究開発プロジェクトのタイトルは何ですか? What is the title of your Moodle R&D project?

Deployment of an AI Chatbot for Moodle Documentation in Japanese Educational Institutions

2. 2024年研究開発の優先課題 R&D Priorities: MAJの会員と役員によって、2024年に「緊急」または「非常に緊急」として選ばれたのは、以下の5つの優先課題だった。あなたのプロジェクトはどれに当てはまりますか? もしあなたのプロジェクトがこの5つの優先事項に当てはまらない場合は、5つの優先事項の中で助成金の申請が十分でない場合のみ検討されます。 The following five priorities were selected as "urgent" or "very urgent" for 2024 by members and officers of MAJ. Which priority does your project fit under? If your project does not fit these five priorities it will be considered if there are insufficient grant applications within the five priorities.

1. 日本語ドキュメンテーション Japanese documentation

2. 学習履歴ダッシュボード Learning history dashboards
3. ルーブリック評価の共有 Rubric Assessment sharing
4. 多言語対応. Multilingual ability
5. 問題バンク-高速バックアップ. Question Bank-fast backups
6. 上記のどれでもない。 None of the above. しかし、もし受理されれば、2025年2月までに完了させることができる。 But if accepted, I can complete this before Feb 2025.

3. 主任申請者の氏名および所属 / Lead applicant name and affiliation (must be MAJ member)

- **Dr. Reinald Pugoy, University of the Philippines Open University (UPOU)**

4a. 共同申請者の氏名および所属 / Co-applicant names and affiliations

- **Dr. Don Hinkelman, Sapporo Gakuin University (SGU)**

4b. コンサルタント（相談役）の名前と所属 / Consultant names and affiliations

- **Dr. Yosuke Morimoto and Dr. Tsuneo Yamada, Open University Japan**
- **Dr. Hideto Harashima, retired professor, certified Moodle Trainer**
- **Mr. Hiroyuki Harada, MAJ server engineer, SGU server engineer**

4c. 有給スタッフ の名前と所属 / Paid staff members and affiliations

- **Mr. Renz Magsino, UPOU, Openg AI Chatbot programmer and trainer**
- **Mr. Suguru Nakai, freelance research assistant (RA) and former Hokkaido University Moodle course creator and help desk**

4d. 追加ボランティア参加者 / Additional volunteer participants

- **Moodle engineers and help staff from 5-10 other institutional members (TBD)**

5. プロジェクト内容 / Project Description

The issue with documentation in Japanese is that it is often overly extensive and excessively technical, and sometimes incomplete or misaligned with English documentation. This project aims to address this by providing answers in easily understandable Japanese (or English).

The purpose is to make simple and immediate Japanese documentation for both students and teachers in the form of questions and answers (AI chatbot style rather than printed manual style). First, all current Japanese documentation will be collected, sorted by version, and converted into an AI knowledge bank. Then missing documentation will be identified and volunteers from the MAJ community will be assigned to write and create a new knowledge bank. Finally, the project will utilize, install and train the Openg AI Chatbot developed by the University of the Philippines Open University (Best Innovation Award at MoodleMoot Japan 2024). In this project, the RA and MAJ engineer will install the chatbot on the MAJ website and up to ten institutional member universities. This chatbot is based on the open-source application, Botpress, designed for programming AI chatbots used in help centers.

Although the UPOU innovation is currently not providing Japanese, it has successfully managed a knowledge base in English and Tagalog, handling thousands of student inquiries each month on its main Moodle site. The UPOU engineer will train the research assistant how to make the AI knowledge banks and the chatbot bilingual with Japanese and English. In addition, links to video-based training videos (i.e. see Japanese versions by Adam Jenkins) will be included.

Reinald Pugoy will serve as the main applicant for this project, along with Don Hinkelman. OUJ professors Morimoto and Yamada, retired professor Hideto Harashima and SGU engineer Hiyoyuki Harada will serve as advisors. Renz Magsino will train the research assistant on how to create knowledge bases in Japanese and apply these to a Q&A branching interface. Suguru Nagai, former Hokkaido University course creator and Moodle Help consultant, is available to work as a bilingual research assistant.

The results of the project are to affect as many institutional members as possible. The team aims to install the knowledge bank/AI chatbot in up to ten Japanese institutions (current MAJ institutional members) for field testing, and to connect both Japan and Philippines Open Universities in a joint project. By contacting and involving admin staff and teaching staff in MAJ institutional members, this project may possibly involve candidates for a Japan-based Product Advisory Group (PAG).

6. 開発タイムライン / Project Timeline

- Phase 1: Design Scope of Japanese Documentation and Work Process--July/August
- Phase 2: Create Japanese documentation for using Moodle 4.0-4.5 and train AI chatbot with Japanese knowledge base. Sept/Oct/November.
- Phase 3: Test and refine chat bot in up to ten MAJ institutional Moodle sites. December/January
- Phase 4: Travel and presentations in Kyoto, prepare paper for Proceedings: February

7. 予想される経費：（時系列で経費をリストアップする。）人件費は、プロのプログラマー、雇われた学生アシスタント、請負業務に充てることができるが、MAJメンバーや役員への支払いは不可）。プログラミングが含まれる場合は、機能ごとのポイント、それぞれに

必要な時間、プログラマーの推定時給を挙げてください。 **Projected Expenses:** (list expenses by timeline) Personnel expenses can be for professional programmers, hired student assistants, and contracted work but not payments to MAJ members or officers). If programming is included, list features point by point, hours required for each, and estimated hourly rate for programmers.

- A. Coaching a research assistant in Botpress and knowledge base creation (Renz, Suguru)
 - a. 20 hours at 1500 yen/hour for Suguru. **30,000 yen**
 - b. 5 hours of teaching by Renz. **10,000 yen**
 - B. Creating a complete knowledge base in Japanese for teachers to create courses.
 - a. Collecting all Japanese documentation on Moodle and organizing it.
 - b. Feeding the Japanese documentation into the Botpress knowledge bank - 80 hours at 1500 yen/hour = **120,000 yen**
 - ~~C. Creating a complete knowledge base in Japanese for students to ask questions and ask about their progress in a course (see #4). 100 hours at 1500 yen/hour. Suguru Nagai from October 1st). 150,000 yen. (With university intern assistance)~~
 - ~~D. Programming a course specific Openg with site login to harvest specific student data including grades. Open github site and respond to code reviewers for 60 hours at 3000 yen/hour. 180,000 yen~~
 - ~~E. Integrating the AI chatbot with the learning dashboard developed by the Technical University Graz. 30 hours at 3000 yen/hour. 90,000 yen~~
 - F. Testing the AI chatbot on a focus group of student and teacher volunteers. 20 hours at 1500 yen/hour = **30,000 yen**
 - G. Training six engineers and installing on the MAJ website and five universities in Japan. 20 hours at 1500 yen/hour = 30,000 yen (40 hours if ten institutions = **60,000 yen**)
 - H. Travel expense to Kyoto for three members **190,000 yen**
 - a. Two members from Philippines (Rein, Renz) 70,000 yen x 2 = **140,000 yen**
 - b. One member from Japan (Nagai) = **50,000 yen**
 - I. Coordinate future work with translators both in Japan and HQ. 10 hours at 1500/hour = **15,000 yen**
 - J. Install and display all results on MAJ Showcase, MAJ website, Moodle.org Japanese website. Publicize to MAJ members and community members. 20 hours at 1500/hour = **30,000 yen**
 - K. Write multiple articles for all R&D projects for MAJ Proceedings with AI assistance. 20 hours at **1500/hour = 30,000 yen**
8. 申請総額. Total amount requested. **515,000 yen (with C, D, E dropped)**
470,000 yen (with I, K dropped)

If this amount is too high, please cut line items to reach the desired limit for 2024.'

- Phase 1 in September: Training of RA by UPOU staff engineer, Contacting experts.
- Phase 2 in October-December: Collecting, refining, feeding Japanese knowledge bank
- Phase 3 in December-January: Training MAJ engineers and staff in up to 10 universities

- Phase 4 in February: Travel and presentations and paper to Kyoto

9. ムードル・ムート2025での補助金成果の発表 Presentation of grant results at MoodleMoot 2025

- はい、2月から3月にかけて、ムードル・ムート・ジャパン2025で結果を発表する予定です。 Yes, I will present results in February/March at MoodleMoot Japan 2025.
- はい、このチームの別のメンバーがMoodleMoot Japan 2025で発表します。 Yes, another member of this team will present at MoodleMoot Japan 2025.

10. 2025年MAJプロシーディングスの助成金結果の発表 (推奨されるが必須ではない).

Publication of grant results for the 2025 MAJ Proceedings (recommended but not required)

- はい、2025年4月までに、私が筆頭著者となり、査読なしの報告論文を発表します。 Yes, I will be lead author to publish a non-vetted report paper by April 2025.
- はい、発表できますが、プロジェクトチームと研究開発委員会のメンバーの支援が必要です。 Yes, I can publish but I will need assistance from my project team and R&D Committee members.
- たぶん、やってみるつもりだけど、絶対に助けが必要だ。 Maybe, I will try but I will definitely need help.

11. ご意見、ご質問は下記までお寄せください。 Share your comments or questions below.

- For R&D committee to monitor projects, a github site should be set up for each project including this one. Maximum participation by MAJ members and Moodle using universities can be encouraged through github comments and issue reports.
- Recommend that travel and training funds be paid directly to UPOU
 - Training by Renz 10,000 yen
 - Travel for Renz and Rein 140,000 Total 150,000 yen
- Recommend that RA, Suguru Nagai, be paid directly from MAJ secretariat, rather than do overseas transfers of funds to Philippines and back to Japan.
 - Research assistant work 210 hours x 1500 yen = 315,000 yen
 - Research assistant travel 50,000 Total 365,000 yen