**BREED Action Research Proposal Application**

|  |  |
| --- | --- |
| **LEAD PROPONENT** | JARITO, GLEN TEE JAY, A. |
| **MEMBER** |  |
| **MEMBER** |  |
| **TITLE OF RESEARCH** | **Project AITEACH**: Artificial Intelligence Integration in Teaching and learning of Philosophy of the Human Person. |
| **School** | SHS in San Nicholas III, Bacoor City |

**Context:**

Artificial Intelligence (AI) made the teaching and learning experiences of teachers and learners viable during the pandemic (Shaikh et al., 2022). As one of the Senior High School Teachers in San Nicholas III, Bacoor City the researcher was trained by the Schools Division Office of Bacoor City of the necessary usage of ICT tools to be competent in delivering quality education. Drawing from the researcher’s experiences in utilizing Google classroom, Microsoft Teams, Google Forms and Bright Space as learning management system in teaching the most essential learning competencies it saved enormous time in preparing teaching materials, analyzing learner’s learning outcomes and made the creation of unique learning opportunities for diverse learners a possibility.

Realizing these potentials and benefits, the researcher accepted the challenge of the previous DepEd Secretary Leonor Magtolis Briones: *“You have enormous amounts of data which are useful, which make the life of learners satisfactory, but we need to teach especially the SHS [learners] to discern and differentiate what data is relevant and important, how to synthesize data, and what do these data mean to us. Artificial knowledge has increased access to education, and it is replacing knowledge teaching. All our future narratives involve algorithms, but if we are not careful, they could replace us altogether,”* (Briones: Rise of Artificial Intelligence, Challenge to Education Leaders | Department of Education, 2019), realizing that without the help of AI the goals of teaching and learning in the 21st century will be difficult and challenging if not unrealizable.

**Rationale:**

The status of ICT integration in teaching and learning specifically the use of AI at Senior High School in San Nicholas III, Bacoor City is yet to be studied and remains unmapped due to different observed barriers and challenges faced specifically by teachers teaching the core subject Introduction to the Philosophy of the Human Person and the learners (IPHP).

As the researcher of this study prepares for the upcoming School Year 2023-2024, the necessity of conducting action research is a priority to ensure that the competency in terms of Indicator 1.3.2 or “Ensure the positive use of ICT to facilitate the teaching and learning process” under Domain 1: Content Knowledge and Pedagogy and Indicator 4.5.2 or “Select, develop, organize and use appropriate teaching and learning resources, including ICT, to address learning goals” under Domain 4: Curriculum and Planning are continually improved along with the other competencies stipulated in the Philippine Professional Standards for Teachers (PPST). Hence, conduct of action research that would explore the Integration of AI tool for enhancing teaching and improving learning outcomes in the core subject Introduction to the Philosophy of the Human Person appeared to be an indispensable endeavor in the field of senior high school education and to Philosophy for children.

With the intent to use both qualitative and quantitative data, the researcher deemed it mandatory to explore the untracked knowledge, skills, attitudes and identify strengths and weakness of teachers and learners in terms of the utilization of AI tools in the teaching and learning process.

In the process of writing the said action research, the research intends to demonstrate that AI integration in teaching of Philosophy for senior high school is not only a fruitful activity in the teaching and learning of philosophy but also in crafting philosophical research for and with the learners and teachers, such as this endeavor. Consequently, the researcher hopefully, given favorable circumstances, would like to learn how to develop and theorize philosophically relevant AI tools with the faculty of Humanities and Social Sciences (HUMSS) Department of the said school through series of Learning Action Cell (LAC) sessions and series of collaborative philosophical activities and projects for HUMSS learners.

**PROJECT AITEACH**: Artificial Intelligence Integration in Teaching and learning of Philosophy of the Human Person is designed to empower teachers and learners through the critical and humanistic utilization of AI tools to achieve the most essential learning competencies in the core subject Introduction to the Philosophy of the Human Person.

The project aims to address the following issues:

1. Limited training and professional development opportunities for teachers and learners in integrating AI Tools specifically focused on IPHP classes.
2. Lack of installed programs, projects and activities for learners and teachers to help develop and implement AI generated tools and resources that can be utilized for teaching and learning in IPHP.
3. Lack of research conducted by teachers and learners that are focused on AI and its ethical integration in teaching and learning philosophy in the HUMSS Department.

Through the implementation and continuous improvement of Project **AITEACH**, HUMSS teachers will be equipped with the necessary knowledge, skills, and attitude to conduct Philosophy classes effectively integrating AI tools, while learners are ethically exposed and trained in the critical and humanistic use and possible integration of AI tools.

**Action Research Questions**

This study aims to describe Project AITEACH as a department-wide approach to identify and explore the knowledge, skills, attitudes and evaluate the integration of AI tool for enhancing teaching and improving learning outcomes in the core subject Introduction to the Philosophy of the Human Person in Senior High School in San Nicholas III, Bacoor City, School Year 2023-2024.

Specifically, it will seek to answers to the following questions:

1. What is the demographic profile of HUMSS teachers in terms of:
   1. Age
   2. Sex
   3. Teaching Position
   4. Length of Service
   5. IPCRF rating SY: 2022-2023
   6. Teaching Gadgets
   7. Internet Connectivity

2. What is the demographic profile of HUMSS learners in terms of:

* 1. Age
  2. Sex
  3. Academic Achievement (GWA)
  4. Learning Gadgets
  5. Internet Connectivity
  6. Preferred Curriculum exits.
  7. Preferred College courses

3. What are the AI tools utilized by HUMSS teachers in the 1st quarter of SY: 2023-2024 in the core subject IPHP when group according to:

* 1. Age
  2. Sex
  3. Teaching Position
  4. Length of Service
  5. IPCRF rating SY: 2022-2023
  6. Teaching Gadgets
  7. Internet Connectivity
  8. Familiarity with AI Tools
  9. Interest in AI Tools

4. What are the AI tools utilized by HUMSS learners in the 1st quarter of SY: 2023- 2024 in the core subject IPHP when group according to:

* 1. Age
  2. Sex
  3. Academic Achievement
  4. Learning Gadgets
  5. Internet Connectivity
  6. Preferred Curriculum exits.
  7. Preferred College courses
  8. Familiarity with AI Tools
  9. Interest in AI Tools
     1. What is the extent of knowledge, skills, belief and attitudes of HUMSS teachers and learners when integrating AI tools in IPHP?
     2. What are the strengths and weakness of AI integration practices in terms of achieving the most essential learning competencies from the perspectives of HUMSS teachers and learners in IPHP?
     3. How can the current AI integration practices be improved base from the experiences of HUMSS teachers and learners in achieving the most essential learning competencies of IPHP for the 2nd quarter of the 1st semester of SY: 2023-2024?
     4. What are the pertinent DepEd Issuances from the SDO Bacoor City that can support the development and implementation of Project AITEACH.

**Proposed Innovation, Intervention and Strategy**

The exploration of AI Integration for enhancing teaching and improving learning outcomes in the core subject Introduction to the Philosophy of the Human Person during the 1st semester of School Year 2023-2024 will utilize the data gathered from the respondents and participants of the study to initiate the following specific innovations, interventions, and strategies:

**Innovations:**

Develop data-driven IPHP differentiated teaching and learning resources projects, activities, strategic-intervention-materials (SIM), rubrics, assessment and other ethical AI Integration Collaborative Projects for 2nd quarter of the 1st Semester of the school year 2023-2024.

**Interventions:**

Providing teachers and learners with professional development opportunities through LAC sessions and peer coaching in workshops to help them develop and implement humanistic and ethical AI integration practices in delivering and achieving the MELCs for IPHP during the 2nd quarter of the 1st Semester of the school year 2023-2024.

**Strategy:**

1. Utilize AI tools in crafting research with focus in Philosophy subject.
2. Utilize AI generated data gathered from the study to conduct LAC sessions for teachers and workshops for learners within in the 2nd quarter of the 1st Semester of the school year 2023-2024.

**Action Research Methods**

**A. Participants and/or other Sources of Data and Information**

1. Convenience sampling will be utilized to determine participants from Grade 12 HUMSS learners of SHS in San Nicholas III, Bacoor City for the school year 2023-2024.
2. Convenience sampling will be utilized in determining participants from teachers of SHS in San Nicholas III, Bacoor City for school year 2023-2024. Master teachers will be asked to participate during the phase 2 of the study.

**B. Data Gathering Methods**

The study will utilize the exploratory sequential mixed-method research design combining quantitative and qualitative data collection methods, (Creswell & Plano Clark, 2017). This is to explore how Project AITEACH serves to enhance AI Integration in the teaching and learning of IPHP.

The gathering methods will be conducted in three Phases:

1. Pre-Intervention

Surveys

In the quantitative phase, respondents will be given survey questionnaires extracted and or adopted from bodies of AI integration in senior high school education literatures which will then undergo validation procedures and ethical review. Survey in this study will be constructed with the aide of AI.

2. Intervention Phase

Key Informant Interviews, Focus Group Discussions

In the qualitative phase, volunteer participants who will proceed on the 2nd phase of the study will be asked guided questions in an in-depth interview and share insights on targeted discussion points during the Focus Group Discussions.

3. Post-Intervention Phase

Observations

For the observation part, Master Teachers’ classroom observation tools specifically focusing in the PPST Indicator 1.3.2 or “Ensure the positive use of ICT to facilitate the teaching and learning process” under Domain 1: Content Knowledge and Pedagogy and Indicator 4.5.2 or “Select, develop, organize and use appropriate teaching and learning resources, including ICT, to address learning goals” under Domain 4: Curriculum and Planning will serve as data source.

Documentary Analysis

DepEd Issuances and all respondents’ documents such as teachers’ lesson plan, reflective journals, learners’ authentic products and other related documentary artifacts that pertains to AI integration in this study will be collated and subjected to documentary analysis for the triangulation process in confirming evidence and situations observed from phase 1 and 2 of the study.

**D. Data Analysis Plan**

1. The collected data from the quantitative phase will be analyzed using descriptive statistical tools such as: Frequency and Percentage.

2. Data collected from the qualitative phase will be analyzed using thematic analysis with the aid of AI tools such as “Thematic” and or “Dovetail”. Furthermore, thematic analysis will provide insights into the current strengths, weakness, treats and opportunities of AI integration practices, extent of knowledge, skill proficiency and attitudes, in delivering and achieving the most essential learning competencies in the core subject Introduction to the Philosophy of the Human Person. Lastly, all documents gathered will be analyzed to serve as a tool in the triangulation process for confirming evidence and situations observed from phase 1 and 2 of the study.

**E. Ethical Considerations**

**Informed Consent**: The researcher to ensure that before the collection of any data from all respondents that they have been informed of the nature and context of the study and that they are aware of any risks related to the use of AI tools in teaching and learning of the course Introduction to the Philosophy of the Human Person. Furthermore, the research acknowledges respondents’ right to disengaged participation at any point in the conduct of the research.

**Data Privacy, Security and Ownership:**  The researchers will ensure that respondents being made aware of the data gathering methods implored by the study; knows the types of data being collected from them, how it will be used, and the potential implications for their privacy and intellectual property. Data security measures and the control and ownership respondents have over their data are prioritized and communicated transparently all through out the duration of the study.

**Data Security:** Transparent communication about data security will be address to all respondents and participants. AI tools that have strong security policy will be utilized to securely store and protect data from unauthorized access or breaches.

**D. Action Research Work Plan and Timelines**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **ACTIVITIES** | **Month 1** | **Month 2** | **Month 3** | **Month 4** | **Month 5** | **Month 6** |
| 1. Conduct and analysis Phase 1 |  |  |  |  |  |  |
| 1. Conduct and thematic analysis of Interviews, FGDs, Observation |  |  |  |  |  |  |
| 1. Document Gathering and triangulation |  |  |  |  |  |  |

*\*Shade the corresponding month per activity*

**E. Plans for Dissemination and Utilization**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **DISSEMINATION ACTIVITIES** | **Month 1** | **Month 2** | **Month 3** | **Month 4** | **Month 5** | **Month 6** |
| 1. LAC and Workshop |  |  |  |  |  |  |
| 2. Research conference. |  |  |  |  |  |  |
| 3. Implementation and Evaluation of Project AITEACH |  |  |  |  |  |  |

*\*Shade the corresponding month per activity*

**REFERENCES**

Briones: Rise of artificial intelligence, challenge to education leaders | Department of Education. (2019b, October 9). <https://www.deped.gov.ph/2019/10/09/briones-rise-of-artificial-intelligence-challenge-to-education-leaders/>

Department of Education. (2017, August 11). DO 42, S. 2017 – National adoption and implementation of the Philippine professional standards for teachers.<https://www.deped.gov.ph/2017/08/11/do-42-s-2017-national-adoption-and-implementation-of-the-philippine-professional-standards-for-teachers/>

Creswell, J. W., & Plano Clark, V. L. (2017). Designing and conducting

mixed methods research (3rd ed.). SAGE Publications.

Shaikh, A. A., Kumar, A., Jani, K., Mitra, S., García-Tadeo, D. A., & Devarajan, A. (2022). The Role of Machine Learning and Artificial Intelligence for making a Digital Classroom and its sustainable Impact on Education during Covid-19. Materials Today: Proceedings, 56, 3211–3215. <https://doi.org/10.1016/j.matpr.2021.09.368>

|  |  |
| --- | --- |
| **SUBMITTED BY:**  *(Signature over printed name)* | A picture containing night sky  Description automatically generated  Jarito, Glen Tee Jay A.  [https://orcid.org/0000-0002-9187-607X](file:///C:\Users\Glen%20Tee%20Jay%20Jarito\Documents\ %20%20%20%20https:\orcid.org\0000-0002-9187-607X) |
|  |
|  |

Artificial Intelligence Integration in Teaching and Learning of the Philosophy of the Human Person © 2023 by Glen Tee Jay A. Jarito is licensed under CC BY-NC 4.0.