



**Real Application of  
Transformative Approaches for**

# **Teaching and Learning in the 21<sup>st</sup> Century**



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## Special Dedication

This book is dedicated to UNIMAS academicians who work hard in conducting the best teaching and learning experience. This book is hoped to be an inspiration to educators on how to implement the teaching and learning process more effectively.

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# Preface

*“It’s not just learning that’s important. It’s learning what to do with what you learn and learning why you learn things that matter.” -Norton Juster*

The Real Application of Transformative Approaches for Teaching and Learning in the 21st Century book was produced to appreciate the transformative work of lecturers in teaching and learning. This book is expected to serve as a guide to other lecturers in helping them to improve their teaching approach, delivery, and assessment of their courses. Lecturers can also use this book to develop their ideas and creativity in designing teaching and learning according to current needs and align with the learning outcomes of the course.

Global changes in the twenty-first century have altered the landscape of teaching and learning, particularly in delivery methods, approaches, and assessments. This is due to the fact that the student body is made up of generation Z, who have different styles of learning than that of the lecturers. Conventional methods used by lecturers are no longer an option for today’s students. Therefore, lecturers must transform their teaching and learning in order to be relevant to today’s students.

The combination of transformative approaches introduced becomes the strength of this book's content. Authors combine diverse approaches, delivery, and assessment in teaching to ensure the effectiveness of teaching to students. Moreover, the collaborative approach used provides an alternative for lecturers to minimize the burden on students for courses taken. This approach has the potential to have a greater impact, particularly in terms of student understanding of learning.

The element of creativity incorporated is also a strength of this book. Authors explain some terms and concepts using diagrams and figures to help the reader understand. The steps and procedures for carrying out teaching and transformative approaches are stated in a systematic manner to help the reader understand what is being conveyed.

The book also includes writers from various backgrounds. This distinguishes it as a unique and comprehensive manuscript. Readers are guided through conceptual and practical understanding of teaching and learning methods. The author's presentation of basic concepts and applications can help the reader understand knowledge more deeply and broadly.

Crafting a learning environment where students are able to explore and understand how the physical world works, and to connect complex scientific concepts to their daily lives is vital. It also includes building students' confidence in their ability to solve challenging problems and empowering them to build a better future for themselves and others. CTS is one of a better way of learning that will prepare students towards focusing on being very collaborative, self-motivated and self-directed all the time staying true to the lifelong learning values, which are imperative to carve a better future for the students in their field of choice.

The next project is related to the environmental issues relating to solid waste, wastewater, and hazardous waste viewed in the context of their treatments. This course has been implementing service learning (SULAM) as a part of an immersive learning approach since Semester 2, 2017/2018. In the previous years, i.e. 2017/2018, and 2018/2019, the

course assessment included either a final examination (40%, session 2017/2018), or a mid-term examination (30%, session 2018/2019). Although SULAM implementation in this course has generally improved the CLO achievement since 2017/2018, the pen and paper examination has resulted in some students not achieving the intended CLOs. Instructors were not sure on the effectiveness of examination in creating a deep learning experience for students.

Therefore, in semester 2, 2019/2020, mid-term examination was replaced with case-study analysis to (1) encourage higher order thinking skills among students and (2) cultivate the sense of commitment and responsibility among students to find innovative solutions towards waste management issues. In addition, students' e- SULAM projects as well as group discussion and engagement with target community were implemented on online platforms. Students' reflection on their e-SULAM projects was recorded on their e-portfolio. Implementation of immersive learning through blended learning in this course has resulted in improved CLO achievement as compared to the past two years. Students' reflection on their learning experience in this course implied the effectiveness of immersive learning (blended learning) approach in this course.

Besides that, the project involved transforming the typical class lecture into an interactive scientific communication environment. Students were exposed to the real scientific communication via workshop-style delivery, project-oriented problem-based learning (PoPBL) on proposal writing projects, and brainstorming/discussion activities during weekly meetings. The initiative eliminated the traditional lecture and end-of-semester assignment practices.

Another project is MATHX Project, a new project-based learning instrument that allows digital students to work collaboratively, purposely implemented to develop teamwork and student's management skills. Students translated acquired knowledge to applications and STEM projects. The integration of digital technology used in this project helps students create meaningful and enjoyable learning experiences in Mathematics.

The following project is related to the assessment in learning. In order to improve learning via assessment conduct, assessment must be objective, significant, and magnitude. OSPE has/have been adapted and implemented for Biology students in Centre for Pre-University Studies to assess know-what and know-how practical competencies following the objective and structured manner with direct observation of the students' performance. The assessment provides meaningful learning experience to the students as it can assess all three domains (cognitive, affective, and psychomotor).

Furthermore, the enriching immersive learning experience during movement control order (MCO) was possible through blended learning substitution method. Finally, one project is related to social media and animation software offering several attractive features that may overcome the limitations of the existing educational portals. The team introduced the use of YouTube, Instagram, and Doodly as supplementary platforms for teaching Environmental Biotechnology in Semester 2 2019/2020 which resulted in excellent academic performance and positive feedbacks from the students.

Finally, this book discussed also describe the course MDP30609 Community Medicine and Public Health posting, the assessment has been modified by adopting the Alternative Assessment method. The Alternative Assessment is regarded as comprehensive, where it assesses the candidates' ability to integrate writing task and performance, divergent thinking in solving problems and enhancement of meaning skills.

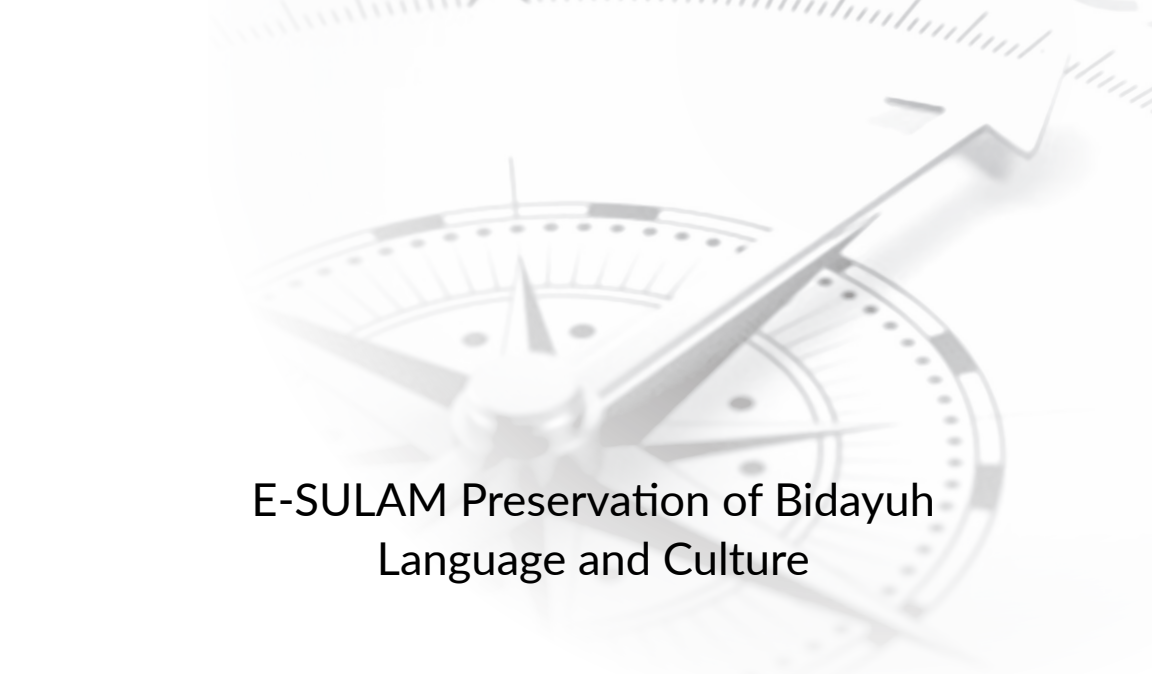
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Thanks to all award recipients who have contributed to the chapters of the book. They are Associate Professor Dr Cheah Whye Lian, Dr Kuryati binti Kipli, Dr Melody Kimi, Mohamad Faizuan bin Mat, Abdul Halim bin Hashim, Dr Chung Hung Hui, Dr Norazlina binti Bateni, Ahmad Alif bin Kamal, Dr Yvonne Michelle Campbell, Nor Hayati binti Jaya, Dr Rafeah Wahi, Professor Dr Zainab binti Ngaini, Norhunaini binti Mohd Shaifullah, Rohaiza binti Daud, Associate Professor Dr Afzan binti Ahmad Zaini, and Dr Nurashikin binti Suhaili. Not to forget to everyone who have been involved directly or indirectly in producing this book, our deepest appreciation goes to all of you.







# E-SULAM Preservation of Bidayuh Language and Culture

Yvonne Michelle Campbell

## **Summary/Synopsis of Project/Initiative**

This project was originally a SULAM (Service Learning Malaysia - University for Society) project, however due to the COVID-19 pandemic and MCO, it was modified into an eSULAM project. The main outcome at the end of the day was that the students can come up with a way to preserve, sustain and disseminate knowledge of language and culture of a chosen community, which in this case is the Bidayuh community. The product decided after much discussion amongst the students was a website to showcase information about the Bidayuh language and culture.

The students were divided into two big groups and each big group was then divided into smaller groups of 5 to 6 students. Each small groups had to decide which element of language and culture they were going to research on such as food, clothes, oral traditions, Gawai, longhouse/ baruk etc.

The students then had to collect data using ethnographic methods. They then need to analyse their data to come up with the materials that they would include in their product, which was the website. There would only

be two websites since the smaller groups would combine all their data and create their respective webpages to be part of the main website.

For this project, students had to write a report, explaining their project and the challenges they went through as well as peer, self and community evaluations. The community evaluation was feedbacks from community members about the webpage.

### **Project Rationale**

Most language and linguistic classes tend to lean towards the traditional method of learning in the classroom, where students learn passively. In reality, students need to go to the field to experience first-hand situation of collecting data, especially in a Linguistic Anthropology class where they must meet a cultural community to learn about their language and culture. When students experience for themselves the challenges of collecting data, the learning process would be a more meaningful and permanent one. They would also be able to appreciate many aspects of field work as well as the relevance of studying linguistics in their everyday lives and the future.

The COVID-19 pandemic and the implementation of the Movement Restriction Order (MCO) have become one of the challenges for students who were doing Linguistic Anthropology to overcome. Students had to be creative on how they would obtain the data for their webpage as well as how they were going to have discussions with their group members online. They would have to be not only creative but also resourceful in collecting and analyzing data as well as work as a team to create something useful for the community.

### **Philosophy of Teaching and Learning**

The Social Constructivism theory was the basis for this project. This theory relates that the learning process depends on social interactions and includes collaborative processes (Eggen & Kauchak, 1999; McInerney & McInerney, 2002; Schunk, 2012). Within this theory, learning is seen as

both the assimilation of new knowledge by an individual and a process by which the learners are integrated into a knowledge community, in this case, the Bidayuh community.

This project was also based on the Experiential learning approach whereby students had to experience for themselves the learning process, in this case it refers to the ethnographic methods. At the same time, they reflected on their learning process to discover what they have learned and experienced.

Both theories relate that knowledge is regarded as a socially and culturally constructed product (Geary, 1995; Gredler, 1997; Ernest, 1999) and that learning is related to existing knowledge with new information integrated into new knowledge.

### **Approach**

This project was originally a SULAM project but because of the COVID-19 pandemic and the MCO, it was changed to e-SULAM. Instead of a physical community project, it was adapted into an online platform community-based project. Although it did not deal directly with the community, we see this as a product that can serve the Bidayuh community, especially the younger generation, in general.

At the end of this project, students were required to come up with a way to help preserve and disseminate a selected community's language and culture. The students first discussed which community they wanted to work on and finally decided on the Bidayuh community. Initially, it was supposed to be the Bratak-Bau group but when the MCO was imposed, the project had to be changed to suit the situation at the time. Hence, after much discussion, it was decided that the community would still be the Bidayuh community, but just the Bidayuh group in general.

There were two big groups, G1 and G2 taking this course consisting of 50 students per group. These two groups were broken down into smaller groups of 5-6 and each group chose which element of language and

culture that they wanted to focus on. At the end of the semester, all the smaller groups would combine and create one webpage, therefore, there were two webpages, one for G1 and one for G2.

While carrying out this project, students also had to improvise some aspects especially where data collection was concerned. The data, which was supposed to be collected via face-to-face interviews, was instead collected through various means such as telephone call interviews and questionnaire (Google forms). However, those who were from and stayed in Bidayuh villages were able to conduct face-to-face interviews. They first needed to have the consent from the informants before they could carry out the interviews. These interviews were recorded and then transcribed. Besides that, some groups went to RTM to seek for audio recordings of oral traditions and folk songs.

The data that the students obtained were then analyzed based on what they needed. From these data, they had to design a webpage, which is the end product of this project – to not only preserve but also disseminate knowledge on the Bidayuh language and culture.

### **Students' Engagement/Involvement**

Students were mostly responsible for the whole process of this project. They had to be creative and find ways to collect data which would be the content of the webpage. Here, they experienced the difficulty of finding respondents to help them with their data especially in times when they could not move about freely. To encounter this problem, the students had to divide the tasks among themselves and delegate the duties to ensure that the project materialized in the end.

When they analyzed the data, they learned several things about the Bidayuh culture and this adds to their knowledge as well as change their perceptions on the Bidayuh community.

# Students engaged in immersive learning

In terms of cognitive abilities, the students were able to apply what they have learned in the classroom when they were working on the project. In the classroom, students were exposed to the theories and concepts of Linguistic Anthropology. Since the students handled majority of the project, they were actively engaged in the learning process plus able to obtain real-life experience. They applied what they have learned in the classroom such as ethnographic research methods, analysis skills as well as communication skills and research ethics. This is different from the traditional method of sitting in class or even online lecture because they are experiencing themselves what it is like to go to the field, analysed data and create a webpage to showcase their findings. Besides that, interviews conducted during data collection and later the data analysis have allowed application of what they have learned in the classroom in a real-life situation.

While conducting this project, students also revealed that they gained new knowledge on the Bidayuh culture. They discovered new information on which they never knew before. Students also revealed that this project has developed their critical and analytical thinking skills.

As for affective abilities, students learned to appreciate and respect the culture and language of the Bidayuh. For some, it was about respecting and valuing another culture which is different from theirs. Besides that, students claimed that this project have helped improved their communication skills, among themselves and to a certain extent, the informants. They learned how to approach people or informant and even some organizations (in this case RTM), thus helping them improve their communication skills. The students also claimed that they worked as a team and gained leadership skills while doing the project and built their confidence at the same time.

Working as a team, the development of leadership skills and teamwork is reflected as well as time and group management. To ensure that the project was a success, these elements are very crucial. The students had to work as a team since this project does not only assess the webpage but also peer evaluation, self-evaluation (related to teamwork) as well as the community's evaluation of the webpage.

At the same time, the students learned new skills on how to create and edit a webpage. All these skills they experience while doing this project are skills which they could apply in the future, not only in completing their studies but also later in the workplace. Being able to create something on their own gives them a sense of pride and achievement towards what they have done.

Students had to overcome many challenges that came with carrying out and completing the project, including internet connection problems, teamwork problems as well as time management, to name a few. However, with these challenges, the students matured and developed themselves not only in terms of knowledge gained but also applied knowledge and skills which are useful for their future.

### **Impact on Students' Learning**

In terms of knowledge, students managed to learn new information about the Bidayuh language and culture. At the same time, they are more aware of other cultures around them and become more appreciative of their own cultures. Besides that, they understood the relevance of the theories and methods taught in the classroom as well as how and when to use them, especially in the field. Ethics in research were also taught which they concurrently applied in the field while carrying out this project.

This project has increased students' communication skills especially in interviewing informants. They have learned on the ethical issues related to research and data collection which are amongst the things they had to consider. For instance, getting verbal consent and permission in writing when they approached an organisation. They also learned on how to analyse their data and present them to the community via the web.

#### **A. Attitudes towards learning**

Students see the relevance of learning the related theories and methods which they feel could be applied to their future subjects

such as Final Year Project (FYP). Some of the students also learned new skills including creating Google form for surveys and creating a webpage.

Since they have gained more knowledge on the Bidayuh culture, some felt the urge to learn more about their own culture. They learned how to look for resources on their own and be selective of relevant information.

### **B. Social skills**

Students have improved on their communication skills (interviewing, approaching informants), ethics (approaching informants, getting consent), leadership skills (delegating tasks, handling discussions, time management) and teamwork skills (solving problems, discussions, giving suggestions, getting work done).

### **Improvement Project/Initiative in Future**

This project can be used for different courses especially in projects which are community and service based. The final outcome would depend on what is needed of that particular course. The process would be the same, but the end product may differ. Since this was conducted in time of the COVID-19 pandemic, the outcome was limited to an online platform. However, if the circumstances were different, the outcome can be in the form of workshops, posters, books etc. The type of output is limited to the creativity of the mind. For future projects, it would be interesting to have a more interactive webpage.

### **Related Learning Outcome Clusters MQF 2.0**

Cluster 3A - CLO3: To choose the appropriate ethnographic method/s for language field work [A3]

Cluster 3C – CLO4: To practice linguistic anthropology knowledge in group work and through interaction with local community while doing field work [A5]

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### **Keywords**

Language, culture, Bidayuh, cultural community, preservation, cultural knowledge, Social Constructivism, Experiential learning

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