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# *Enhancing Teaching through Moodle: A Case Study on E-Learning-Supported English Language Teaching*

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**Abstract**
This paper describes the experience of ELC-NCT regarding the implementation of blended learning in teaching English. As there is no hard-and-fast rule on how to carry out blended learning in various courses taught in ELC so far, this study aims to follow the practice of select teachers to identify best practices, challenges, and opportunities, which can then be used as guide to develop a blended learning environment. A group of ELC teachers served as the focus group: a few who are relatively new, several that have been teaching in the Center from 3 to 6 years, and others that have been teaching in the Center for more than 6 years. The study monitored and recorded the practices they follow in using Moodle to deliver their courses, the challenges they faced, the changes they made in teaching methods, and their perceptions on issues relevant to integrating online activities in teaching. The study used qualitative and quantitative methods in analyzing the data collected for the study. Data collection first involved taking a survey of all ELC teachers to determine baseline data. This survey comprises assessment rubric and teacher perceptions on functionality, usability, and identification as technical support of Moodle LMS. An online discussion forum then followed for the focus group. This was done to provide depth and to further reinforce survey results. From this study, a list of best practices was developed and recommended for use as guide by ELC staff to improve the implementation of blended learning in their classes.

Keywords: Blended Learning, E-Learning, Moodle, Web-Enabled ELT

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## Introduction and background of the study

It is a very well-known fact that we now live in a landscape where text messages, photos, audio, and video are transmitted from one mobile device to another in a matter of seconds. These devices allow us to connect to the Internet through wireless and other types of networks. It can be further said that emails, instant messaging, blogs/vlogs, wikis, and social media have revolutionized the way we share information (Tanveer, 2011). Moreover, the exponential growth in popularity of Online Learning Environments (OLEs) starts to drive change in many aspects of teaching and learning, such as course design, delivery methods, teacher-student interaction, design of student tasks, and student assessment (Bennett & Lockyer, 2004). Realizing that infrastructure and devices already exist and are just waiting to be fully utilized, administrators of the English Language Center (ELC) in Nizwa College of Technology (NCT) decided to implement a policy to integrate an open-source Learning Management System (LMS) in the delivery of English Language courses. As it is reckoned that full-fledged e-learning courses will not suit the level of students in the current teaching-learning environment at the center, the ELC management also advised to implement a combination of face-to-face sessions and e-learning practices in the so-called "blended learning" approach. Simply put, blended learning means "the thoughtful integration of classroom face-to-face learning experiences with online learning experiences" (Garrison & Kanuka, 2004). From this background, this study was carried out.

The locale of this study, Nizwa College of Technology (NCT), is one of the seven colleges of technology (COTs) that operate under the Ministry of Manpower. It provides academic programs that support the production of globally competitive Omani professionals in different areas such as Information Technology, Business Studies, and Engineering. As part of program requirements, students take English Language courses from ELC. NCT is currently offering two English Program tracks: the Foundation Program and the Post-Foundation Program. The Foundation Program focuses on four macro skills (reading, writing, listening, and speaking) intended to enhance students' communication skills in preparation for the requirements in the different fields of specialization the students would pursue in Business Studies, Engineering and Information Technology. Upon registration in the college, students are grouped based on their English Language proficiency through a placement test which in turn determines their foundation English Language level (Levels 1-4). On the other hand, the Post-Foundation Program focuses on field-specific English Language discourses, such as technical writing and public speaking. To complement the existing programs, NCT provides support for English Language education through facilities and services like the Self Access Center, offering of multimedia classes, and extracurricular activities such as English Day, Public Speaking Competition and Language and Culture Week (Nizwa College of Technology [NCT], 2019).

In terms of the learning management system, although there are many commercially available LMSs, ELC chose to implement their e-learning-supported English Language Teaching (ELT) environment using *Moodle*, as it is free and open-source. More importantly, it is the e-learning platform of choice in the college. As it is open-source and free, there is no associated license fees. The content and design tools provided by the LMS are driven by the needs of *Moodle* user community (Moodle, 2019) including NCT.

## Related Literature

E-learning is not a new teaching paradigm. In fact, this approach is here for decades and is also a popular teaching strategy for educational institutions of different levels. E-learning refers to the use of technology in the context of the teaching-learning process (Wilson, 2012). In addition, e-learning refers to "hybrid or blended courses where face-to-face time is reduced and replaced by online activities" in which case, the blended learning approach to teaching and learning is followed (Nichols, 2008, in Wilson, 2012). M. B. Nejad, E. B. Nejad and SadeghiJoola (2012) studied the different classifications and standards of e-learning, and they reported that e-learning is characterized as the use of technology for learning and would include applications using the computer and the Internet. Moreover, learning materials can be coursed through different modes such as the internet, intra/extranet, audio tape, video tape, satellite, TV and CD-ROM (p. 9785). The U.S. Department of Education, Office of Planning, Evaluation and Policy Development (2010) defined online learning as "learning that takes place partially or entirely over the Internet" (p. 9). With these definitions, e-learning could refer to the extent on how technology is used in the teaching-learning process.

The U.S. Department of Education, Office of Planning, Evaluation and Policy Development (2010) classified e-learning into three aspects, namely the learning goal or objective, experience, and online learning activities. The first aspect is the learning goal wherein the class is conducted in a virtual class termed as replacement to the actual classroom teaching-learning, while the second one is enhancement as to augment the activities done in the actual class. The second aspect is the experience in learning divided into three types. The expository instruction is when information is provided through different materials or media (i.e. lecture or handouts); active learning is when the students use different activities for their learning such as online drills, simulations, games, or microworlds, and interactive learning is where learners cooperate with other learners and teachers through different technological means. The third aspect is the type of e-learning activities conducted as synchronous, where learning takes place in the actual classroom or a virtual class, and asynchronous, where learners access the learning niche in different times providing inputs and outputs.

M. B. Nejad, E. B. Nejad and SadeghiJoola (2012) classified e-learning into different models, namely: (a) Synchronous Model refers to online learning wherein the members of a class participate in virtual classrooms and conferencing simultaneously, (b) Asynchronous Model refers to offline learning wherein members of the class access the materials from the Internet and do the tasks at their own pace, (c) Computer-based Training Model refers to e-learning wherein the materials used are stored in a software stored in CD, (d) Internet-based Training Model refers to e-learning wherein the course contents are delivered through the internet and its network, and (e) Web-based Training Model refers to e-learning wherein the course contents are delivered through the Local Area Network (LAN) and the Internet. This classification of e-learning is based on the group dynamics of teachers and students and the technology used in conducting the classes.

In terms of the use of e-learning and blended learning in ELT, Kim (2008) studied the perception of ESL/EFL teachers regarding the use of computers in the classroom.

Findings showed that computers are used as a tool for learning (p.248). However, it should be noted that the findings focused on the use of computers wherein it is teacher-centered, by having the computers as supplemental tool in language learning. In another study, Ilter (2009) studied technology use and its motivation of students in the classroom. The study used a questionnaire to collect data from students in the Akdeniz University Preparatory Classes for academic year 2007-2008. The results show that technology motivates students to learn language when technology is present in the language learning process (Ilter, 2009, p.115).

Tanveer (2011) conducted a study regarding the different perceptions, challenges, and strategies of students and teachers in the use of e-learning tools in language learning. The study found out that students most likely prefer to have technology in the teaching learning process (p.3). Meanwhile, the challenges faced by students and teachers are their current technological knowledge and skills to use the digital devices and the resources of the educational institution as to integrate e-learning in the curriculum. In another study, U.S. Department of Education, Office of Planning, Evaluation and Policy Development (2010) conducted a meta-analysis of different studies regarding online learning, the combined or blended learning and face-to-face instruction. Results showed that students in online learning environment perform better than those who had face-to-face or traditional learning.

Meanwhile, Kocuglu, Z., Ozek, Y., and Kesli, Y. (2011) did a study on the effects of blended learning for a teacher training program on English Language teachers. Although the results showed that there is not much difference between the blended learning approach and the traditional form of teaching it terms of gaining knowledge, it also showed that learners tend to be more interested in studying if technology is used in the teaching-learning process. This conclusion is further supported by the study of Kaya, H. (2015), where it was found that integrating technology in language teaching helps students become more active learners and encourage them to reflect more on their own learning.

## Methodology

The subject of this study is the group of ELC teachers that use *Moodle* in delivering their lessons, most especially the "focus group" consisting of teachers that are identified as the most active Moodle users in the Center. One group of teachers in the focus group are considered new teachers, that is, they teach at the Center for three years or less. Meanwhile, another group, called the middle group, is comprised of teachers who have been teaching in the Center from three to six years. The last group called the senior group are the teachers who are teaching at the Center for more than six years already.

In order to get baseline information about the perceptions of users regarding the use of Moodle LMS as the e-learning/blended learning platform to teach English, a Center-wide data collection was conducted through an online survey in the 4$^{th}$ week of the semester, or about a third of the way in the semester. This was participated by English teachers who use e-learning (Moodle) in their classes. This served as the baseline data of the study, which is used as foundational information regarding analyzing specific feedback from the focus group. The Center-wide survey formed the quantitative part of data and was participated by all ELC teachers who use Moodle in their classes,

without regard whether the utilization is light or heavy. The survey questionnaire is divided into two parts. The first part asks about the perceptions of respondents regarding the fitness of various features of *Moodle* LMS in their class (Moodle Assessment Rubric), while the second part deals with the respondents' perceptions on the functionality, usability, and technical support of *Moodle* LMS in successfully conducting an e-learning-supported English Language class. Moreover, regarding the survey, scale items were developed for the following major dimensions: LMS functionality, system usability, and technical support. Scale items were in 5-point Likert Scale ranging from Not Important to Extremely Important. The *Moodle* assessment rubric, meanwhile, contained choices as Do Not Meet Class Requirements, Meet Class Requirements, and Exceeded Class Requirements Needs.

Furthermore, an online semi-structured interview through Moodle's online discussion forum was created for the focus group. This online discussion forum was used in the study to determine the issues faced by participants that belong in the focus group regarding the use of *Moodle* LMS during the study, as well as the enhancements they had to do with the Moodle LMS to fully support their requirements in class, and the changes in the teaching practices they would recommend for the proposed approach to be successfully implemented. This discussion forum was moderated by the Technical Support Team of the study, comprised of two academic staff from the IT Department. The online discussion was made available to the members of the focus group at the beginning of the semester; however, the bulk of communication happened towards the middle of the semester when members of the focus group started to have ample, relevant experiences regarding the implementation of blended learning in their respective classes for that semester and wanting to do more. Their communication with the Technical Support Team of the study served as another source of valuable information for the data collection process. The online semi-structured interview that was facilitated through Moodle online discussion forum served as another main source of data for this study. The discussion focused on several major dimensions as follows: general issues faced in LMS, course design and delivery requirements that need to be addressed by *Moodle*, and changes in teaching practice due to adoption of blended learning approach. Regular interaction happened within the online discussion forum between the members of the focus group (English teachers) and members of the Technical Support Team (IT Department staff). Threads of these communication were recorded and used to support and/or reinforce the baseline information taken from the online survey.

Once data is collected from the survey and the discussion forum/interview, it was analyzed, interpreted, and generalizations were made. From these generalizations, several best practices were identified, compiled, and recommended as a guide for all teachers in the Center to follow, to make the implementation of blended learning more successful.

## Results

The survey distributed to the participants focused on two areas: LMS Features Assessment (Moodle Assessment Rubric), and LMS Functionality, Usability and as Technical Support Tool. The following sections provide an analysis of the results based on the perceptions of the participants who participated in the survey.

In terms of the perceptions of the respondents about the different *Moodle* LMS features that they used in class, all parameters received "Meet Class Requirements" as the main choice. Percentages of respondents that selected this choice ranged from 65.6% to 89.1%, with the highest item being "Sufficient video or file storage" (89.1%) and the lowest item being "Track student attendance" (65.6%). The corresponding respondents' percentages for the choice "Meet Class Requirements" on the different parameters under this category are as follows: (1) Sufficient video or file storage, 89.1%; (2) Allow flexibility in developing test or quizzes, 76.6%; (3) Support for electronic communication and collaboration, 79.7%; (4) Track student attendance, 65.6%; (5) Allow posting of assignments, 79.7%; (6) Contents are protected with security protocols, 84.4%; (7) Can generate grade reports, 75%; (8) Allow flexibility in providing marks, 81.3%; (9) Monitor course progress of students, 81.3%; (10) Provide feedback on assignments, 78.1%; and (11) Layout is simple to navigate, 73.4%. Since all items have around 2/3 or more of the respondents choosing Meet Class Requirements, it is concluded that as per the perceptions of survey participants, all *Moodle* features identified can support the needs of their class. However, it has to be pointed out as well, that among these features, survey participants thought that digital storage, content protection, and the LMS's ability to provide more flexibility (or alternative activities) to provide marks to students, are the main features that really meet their requirements, as shown by very high percentages of participants that chose them: 89.1%, 84.4% and 81.3% of participants, respectively.

Also, from the respondents' perceptions in this section of the survey, it has to be further emphasized that some of the parameters, such as posting of assignments, generation of grade reports, tracking student attendance, feedback provision, and having security protocols, generated quite high percentages for the "Exceeded Class Requirements Needs" choice, with 20.3%, 18.8%, 15.6%, 14.1% and 14.1%, respectively. These further showed that the features of the LMS used – *Moodle* – even surpassed teachers' expectations in some areas.

In regard to *Moodle* LMS Survey – LMS Functionality, Usability and as Technical Support Tool, the table below shows the responses from the survey-participants:

| No. | LMS Functionality | Remarks |
|---|---|---|
| 1 | Allow creation/posting of assignments, tests, projects, etc. online | Very Important |
| 2 | Provide criteria and procedures to automatically grade assignments | Very Important |
| 3 | Include means to write objectives and learning outcomes | Very Important |
| 4 | Maintain records of communication with other users | Very Important |
| 5 | Post/monitor course progress and effectiveness | Very Important |
| 6 | Track registration records | Very Important |
| 7 | Provide feedback on assignments | Very Important |
| 8 | Allow chats and asynchronous communications: postings, forums | Very Important |
| 9 | Track and facilitate individual participation | Very Important |
| 10 | Support for electronic communications e.g. email, posts, etc. | Very Important |
| 11 | Support use of external resources e.g. web links, etc. | Very Important |
| 12 | Can incorporate multimedia resources: video clips, flash, ppt | Very Important |
| 13 | Facilitate collaborative learning tools such as wikis | Very Important |
| 14 | Support virtual community building | Important |
| 15 | Allow update and redesign of assessment rubrics | Very Important |
| 16 | Provide means to create multiple roles in the system | Very Important |
| 17 | Contents are protected with password and other security protocols | Very Important |
| **No.** | **System Usability and Technical Support Tool** | **Remarks** |
| 18 | Has a simple layout that is relatively easy to navigate | Very Important |
| 19 | Use of icons and other graphics provide cues regarding usage | Important |
| 20 | Screen contents and labels can be modified | Very Important |
| 21 | Allow multimedia and visual resources into an online module | Very Important |
| 22 | Support moving courses to other categories | Very Important |
| 23 | Provide users with basic online support | Very Important |
| 26 | Supports open source | Very Important |

Table 1: Summary of Respondents' Perceptions on LMS Functionality, Usability and as Technical Support Tool

Table 1 presents the perception of teachers regarding the use of Moodle as a learning and support tool. From the responses, it can deduced that survey participants perceived that to come up with a successful implementation of blended learning in their classes, it is very important that the LMS being utilized provides support for the creation and subsequent posting not only of course materials, but also of online activities; that the teacher is able to monitor the performance of students; that the LMS provide support to maintain communication with students and provide regular feedback to them; that there is management of individual student participation and group collaboration; that the LMS supports use of various media in delivering content online; and that the contents are protected or that the LMS has support for security.

Moreover, in terms of usability and the LMS as a technical support tool, the survey respondents deemed it very important for the LMS to have a simple layout, and that objects that are placed in the LMS have labels that can be easily modified; that the LMS support easy classification and reclassification of courses; and that the LMS allows easy use of visual resources, is open source, and with at least basic support.

As the survey was distributed after the teachers were given enough time to use the LMS in their classes (i.e. the survey was distributed toward the third of the semester when the study was conducted), it can be concluded from the responses that Moodle, as the LMS being used, is able to support the functionality, usability and technical support features that teachers need for the successful blended learning approach in an e-learning enhanced English Language Teaching.

These results are further reinforced by the feedback from the focus group.

One respondent stated that *"Moodle, as a platform to implement e-learning supported teaching, helps in providing more and better organized activities for students"*. Another intimated that *"the platform gives my students different ways to practice their knowledge… using the provided materials. It pushes them to think and challenge themselves (more)"*. One further said that *"... the interaction in the class prompts them (students) to look into Moodle to practice what they actually learnt… and then get back to a healthy classroom discussion"*.

In terms of the immediate change this approach to teaching can provide, many of the focus group members reiterated that ideas raised and discussed in the online discussion forum (in their classes) can be carried over to the discussion in class, and vice versa. This, the focus group members say, *"may create enthusiasm and interest in learning through a modern technique, although it may also create other practical issues that a distance (online) form of learning may not (immediately) find solution"*. Moreover, majority of the focus group participants commented that Moodle helps teachers in arranging or organizing the content of their courses by topics or weeks, which are easier for students to follow. The platform is also user-friendly in terms of user interface, which allows the teacher to design the course in a way that it will be more engaging to students.

Others, although they generally were receptive and see the positive potential e-learning can provide to support their teaching, commented that *"students should be given orientation in the use of Moodle (especially that they are new to the College environment), so that they would have proper understanding of its use and benefits"*. In this regard, one member commented that *"...for newbies, they (students) were focused on the discussion, but a bit confused when they start to navigate the LMS when looking for the appropriate information"*. Another one stated: *"For Level 1 students, this is totally new to them. Face-to-face cannot be eliminated at this time as it will complicate the lesson delivery. "Blending" Moodle with the traditional method is the best at this point."*

Others emphasized that in terms of embracing technology, this form of learning allows the teacher to *"hold students to a higher level of standard as they are given a lot of practice… I (teacher) can make the quizzes more challenging and expect students to perform better as they are given more exercises and more time to practice"*. Others also emphasized that the platform allows teachers to provide online content, which is readily available and accessible to the students, anytime and anywhere. Moreover, focus group participants readily acknowledge that the platform provides the opportunity to provide students with extra materials so that they get more exposure in studying and using English. In this regard, one participant put it succinctly: *"Learner-centered education requires students to be involved and take*

*charge of their learning; the materials provided in Moodle give them a chance to reflect on what they have learned in face-to-face learning environment. The wide choices provided to them give them an opportunity to take decisions. Moodle also helps in making connections with students and keeping in touch with them even outside of the classroom."*

Not all feedback from the focus group are positive though. In the use of e-learning in teaching, others were more skeptical, like the comment received from one of the members: *"Teaching is not just enhancing knowledge in the subjects we offer. It is unlimited knowledge we impart in our students in many areas to build up good human beings. It is obvious that this type of method will affect the traditional way of thinking as the distance it creates between the two parties – the learner and the facilitator will build an invisible wall between them. The philosophy of teaching and learning including the teaching culture, the environment we build, the rapport we maintain will be destroyed in the long run. As I believe, we need to change the teaching strategies as per our needs but MUST maintain and assure that nothing should destroy human relationships – the rapport between the teacher and the student. Face-to-face teaching still counts a lot."*

Others say that *"e-learning (through Moodle) is a good way to improve interaction through technology… but it is by no means improving teaching standard; better interaction between teacher and student in whatever way is still the best way to innovate the teaching-learning process".*

Although there is a mix of positive and somewhat negative feedback at the time the study was done, it cannot be denied that the majority of the focus group members' feedback are in general terms positive, and moving towards the embrace of this proposed approach to teaching. As one focus group participant puts it, *"If fully and properly explored and implemented, technology will surely affect certain aspects of our current ways of teaching, especially the old ways of conducting lectures and discussions; however, the embrace of technology may be beneficial to the young generation who are more technology-savvy and who are more inclined to use technology to search for information".*

And to summarize everything from the comment of another member: *"Whether we like it or not, change will happen. We must upgrade ourselves and be familiar with new trends. Since this is the time of Generation Z, we must meet the changing needs of our students to cope with the situation where technology becomes an integral part of everyone's lives".*

## Outcomes

After the analysis of both survey and discussion forum data/information, the following guide is recommended for ELC teachers that wish to implement blended learning in their classes:

## English Language Center Introductory Blended Learning Guide for Teachers

### A. Moodle LMS Features to Consider

As Moodle is the college LMS platform, it is important for the ELC teacher to have an idea of the features that will be important for the successful implementation of blended learning.

The following are some of the features that the participants in this study gave focus on:

1. Grouping the information blocks either by topic or by week

Depending on how the teacher designed the course delivery plan, the teacher can divide the online content either by topic or by week in Moodle.

2. Upload of different types of course materials

Using Moodle, the teacher can upload even video and audio clips. This will be useful for student practice of listening skills, as well as general comprehension of the English Language. The teacher is also able to design tests that are like IELTS or TOEFL, which will give students a better chance of passing these kinds of tests.

3. Use of Online Grade Book

During the study, several teacher-participants emphasized the usefulness of having an online gradebook, as students can monitor the progress of their performance in class using the online facility. This makes it convenient for them to check their marks in different activities, as they can access Moodle anywhere.

4. Secure online platform

One thing that was noticed by the teacher-participants is the fact that Moodle has a variety of features to make quizzes secure: shuffling of questions and choices, providing a range of PCs (using IP addresses) where the exam could be opened, etc., that would not only make their job easier, but also ensure that assessments would be difficult to tamper with.

### B. Blended Learning and Learning Management System Considerations

1. Enough time should be provided by the teacher, with the support of the technical team, to ensure that students know how to properly use the LMS platform. If possible, schedule of orientation outside of official class hours be planned by the Center for the students.
2. Teachers should have their own Moodle orientation to ensure that they know the features that would be useful to them, and they use these features in their classes properly.
3. Periodic workshops on blended learning in general should be also provided to the teachers to keep them abreast of new technologies other than the LMS platform (Moodle).
4. There should be an appropriate mix of face-to-face and online class activities and/or sessions, which should be reflected in the teacher's lesson plan or course delivery plan.
5. The teacher should maintain active communication with students outside of the classroom using the LMS platform to maintain student interest in the technology. This can be done through online discussion forums, wikis, and LMS messaging.
6. The teacher should use different kinds of content, as well as online activities in the Moodle platform to maintain student engagement with the course.

7. The teacher should design the online part of the course with emphasis on developing independent learning on the side of the students.

## Conclusion

Data collected from this study resulted in the development of a very simple, introductory guide that can be followed by English Language teachers in ELC if they want to improve the probability of success in the implementation of an e-learning supported English Language class. These generalizations and recommendations were compiled from the feedback of study participants, which were mainly based on the practices they followed during the experimental phase of this study. The outcome of this study, although can be considered a guide, is just the initial step for the formulation of a more comprehensive framework for a full-fledged blended learning model that can be adopted by the Center. Although the guide recommended in this study is already envisioned to help ELC teachers in further improving their blended learning approach, the authors still recommend to continue this study and move one step further to be able to come up with a complete model that can be adopted not only by NCT ELC, but also by other English Language Centers in the Sultanate as well.

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# *Classroom Diversity and Thoughtful Engagement*

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The Osaka Conference on Education 2020
Official Conference Proceedings

**Abstract**
This presentation will discuss the Theory of paper Japanese Uniqueness 「Nihonjinron」which explores peculiarities of Japanese culture, psyche and behavior in the context of current trend in diversity in education. It assumes that regardless of Japan's image as a "homogeneous" country, there is diversity represented by various ethno-social factors such as experiences abroad, family structure, and gender identity. The author will show recent data to support this. The author argues that with Japan becoming increasingly more ethnically diverse, it has become more crucial for Japanese society to develop the capability to accommodate differences. Education is a strong force to accomplish this goal. The author will introduce the 1996 "Education for International Understanding" (EID) emphasizing diversity education. Unfortunately, Otani (2017) reports that, without adequate guidelines, schools are left on their own on how to implement this policy. There are many children who still don't get a chance to form their own positive spin on their ethnic identity. This paper will demonstrate "inclusive pedagogies" to address issues on diversity experience in the Japanese classroom, where learners will find themselves in relation to others and their place within the world.

Keywords: Ethnic Diversity, Inclusive Education, Diversified Society

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## *Introduction*

This paper assumes that regardless of Japan's image as a homogenous culture, there has been increasing diversity represented by various ethno-social factors. First, the theory of theory Japanese Uniqueness 「日本人論」a theory which explores the peculiarities of Japanese culture, psyche, and behavior, will be discussed. The author will then show recent data to support this assumption.

As Japan has become increasingly more ethnically diverse, it has become more crucial for Japanese society to develop the capability to accommodate differences. Education is a strong force to accomplish this goal. One of the attempts to bring this goal to the schools, the 1996 Program on "Education for International Understanding" (EID) which emphasizes diversity education in schools, will be discussed. The author will introduce the 1996. Unfortunately, assessment reports such as Otani (2017) indicate that without adequate guidelines, it was difficult for schools to implement the policy.

A deeper concern is that there are many children who still don't get a chance to form their own positive spin on their ethnic identity. This paper will show some examples based on previous research. It is hoped that "inclusive pedagogies" that address issues on diversity experience in the Japanese classroom, are essential for learners to find themselves in relation to others and their place within the world.

## *A Review of the Theory of Japanese Uniqueness*

The theory of Japanese Uniqueness, in Japanese *Nihonjinron* or「日本人論」, is a theory that propagates the uniqueness of the Japanese people and the Japanese culture. Post-War discussions about the different areas of Japanese uniqueness have been published in a series of texts that focus on issues of Japanese national and cultural identity. The concept became popular after World War II, with books and articles aiming to analyze, explain, or explore peculiarities of Japanese culture that define Japanese mentality, psyche and behavior. The literature is vast, ranging from various fields as sociology, psychology, anthropology, history, linguistics and the like. Examples of these discussions are summarized as:

1) "nihonbunkaron" (日本文化論), theories emphasizing uniqueness of Japanese culture,
2) "nihonshakairon" (日本社会論), theories focusing uniqueness of Japanese society,
3) "nihonron" (日本論), theories emphasizing the uniqueness of Japan"
4. "nihonkeizairon" (日本経済論), theories focusing on the unique Japanese Economy"

In particular, the theory advocates that the Japanese race is a unique isolate, having no known affinities with any other race. This isolation is due to the peculiar circumstances of Japan being an island country. The Japanese language is vague and has a unique grammatical structure that condition the Japanese to think in peculiar patterns. Japanese psychology, influenced by the language, is defined by a unique form of 'human relationship' with clearly defined boundaries between self and others.

Scholars such as Peter Dale (1986), Harumi Befu (1987), and Kosaku Yoshino (1992) view nihonjinron more critically, identifying it as a tool for enforcing social and political conformity. Dale, for example, characterizes the theory as follows.

> "They implicitly assume that the Japanese constitute a culturally and socially homogeneous racial entity, whose essence is virtually unchanged from prehistoric times down to the present day" (1986).

When Japan opened its ports, and subsequently the nation, to the outside world in the Meiji Era subsequent reforms sought to respond vigorously to the challenges the country was facing in relation to US and the European countries.

***The Changing Ethnic Diversity in Japan***

Despite Japan's image as a "homogeneous" country, there is diversity represented by various ethno-social factors such as experiences abroad, family structure, and gender. Recent research indicates the changing composition of Japanese society. For instance, Maher and Yashiro (1995), together with others, discuss the linguistic and cultural heterogeneity in Japanese society, disproving the myth of the Japanese Uniqueness called「Nihonjinron」.

Simply defined, cultural diversity is the existence of a variety of cultural groups within a society. Cultural groups can share many different characteristics like religion, ethnicity, language, nationality, sexual orientation, class, gender, age, disability, health differences, geographic location and a lot of other things. A variety of tools and methods have been used in the literature to measure culture diversity of countries (Fearon, 2003). In this paper, the following data are used to indicate the changing ethnic composition in Japan: 1) The consistent rise in the number of foreign visitors to Japan, 2) The dramatic increase in the number of Japanese living and working overseas, 3) The increase in the number of international marriages, 4) The Increasing number of children born from international marriages, 5) The Consistent increase in the number of foreign workers in Japanese industries.

1. As a result of rapid internationalization, Japan has seen a dramatic and consistent increase in the number of incoming foreign tourists to the country. The trend in Japan's tourist boom in the past decade is indicated below.

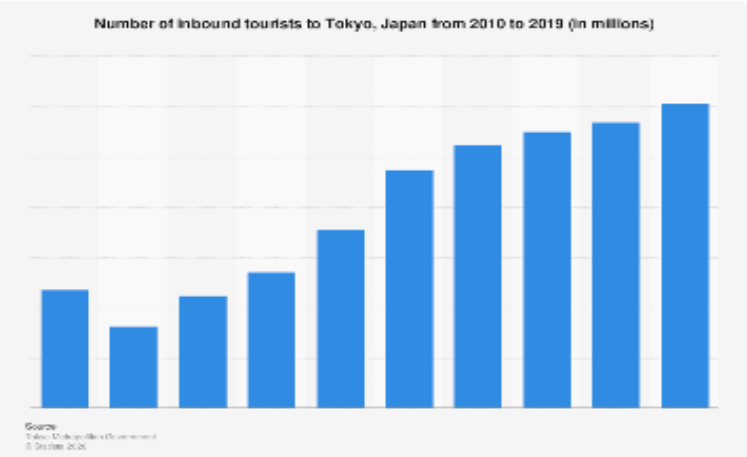


Figure 1. Trend in inbound tourists to Japan

Increased internationalization & globalization demanded changes in Japanese immigration laws to accommodate foreign workers. Number of foreign workers in Japan.

2. The trend i in Japanese traveling and living overseas has been remarkable for the past several decades reflects the increase in international travel and tourism. This is summarized below in the data from the Ministry of Foreign Affairs.

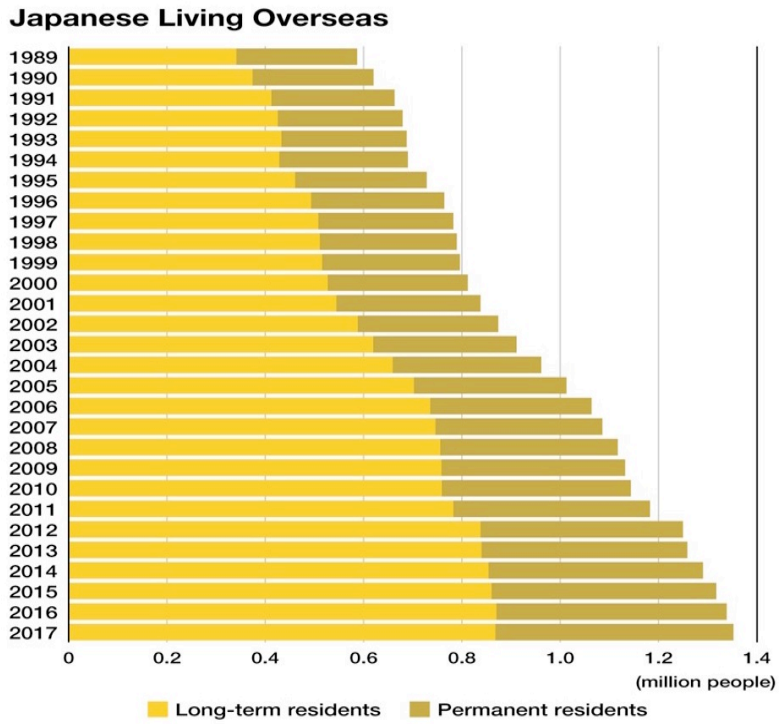


Figure 2. Trend in number of Japanese overseas

3. The changing ethnic diversity of Japanese society could not be proven better by the number of international marriages in Japan. This is indicated in the data below.

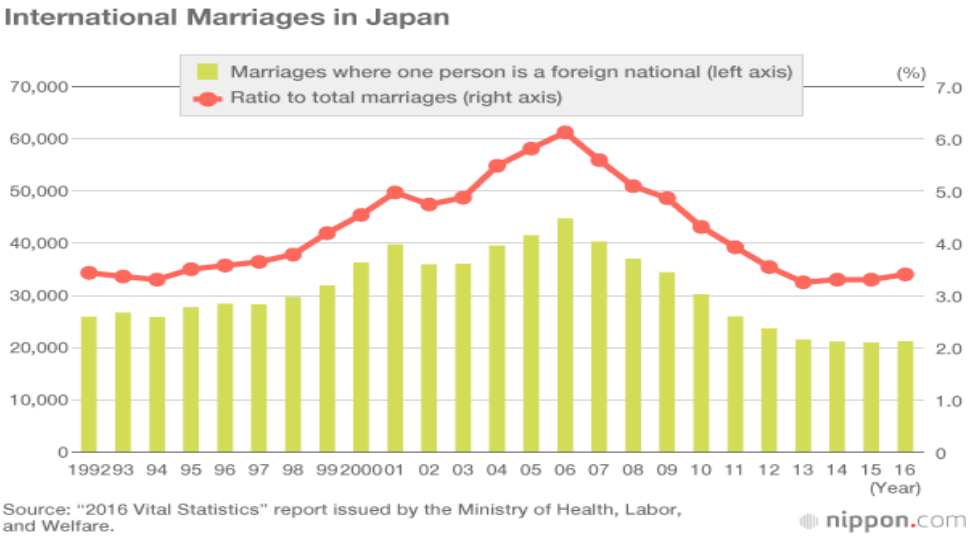


Figure 3. Trend in international marriages in Japan

4. The increase in children with at least one non-Japanese parent has broadened the range of cultural background among the country's residents, calling for more adjustments in its legal system. The data below indicates the number of school children born from a foreign parent, as a result of increasing number of foreigners marrying Japanese nationals.

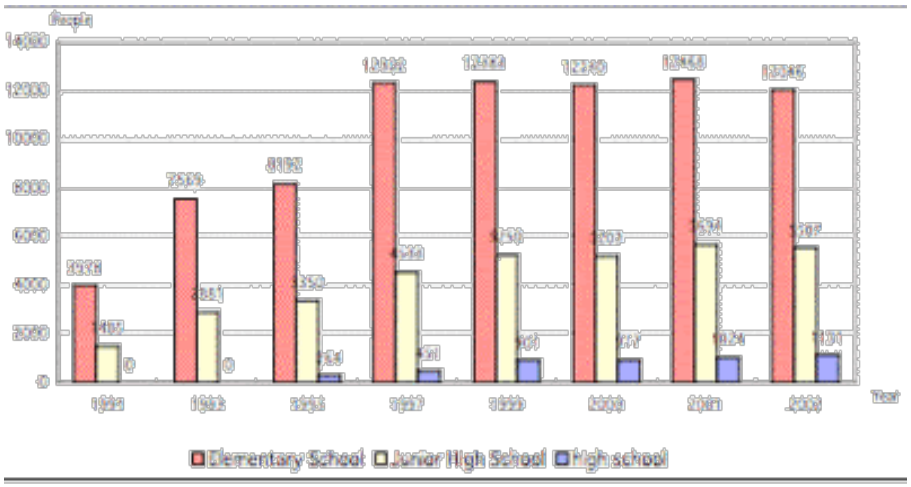


Figure 4. Trend in the number of children born from international marriages

5. Foreign workers, foreign labor force, plays an important role in society by contributing to cultural diversity - in the diversification of ways of thinking, knowledge, and ideas. Japan has relied on foreign labor to compensate for its shrinking workforce caused by dwindling population and its aging society. Japan's foreign workers boom in recent years is summarized in the following data compiled by the Ministry of Health, Labor, and Welfare.

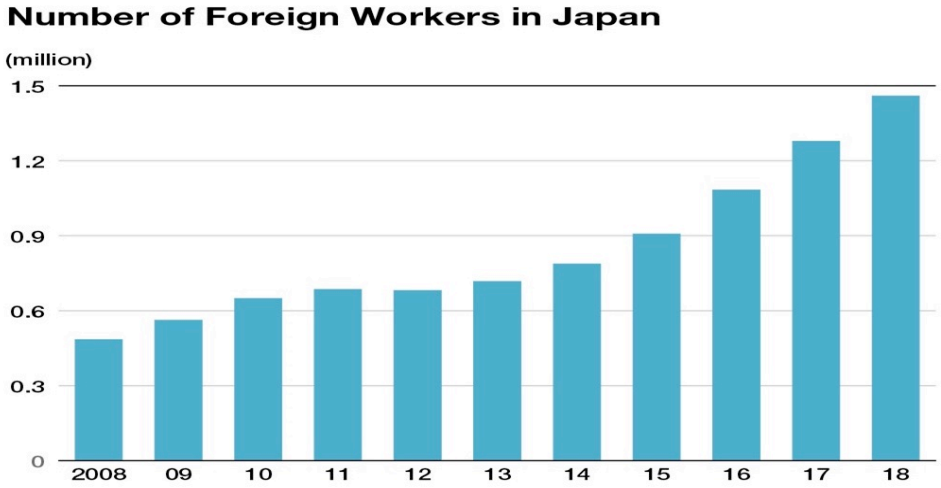


Figure 5. Trend in the number of foreign workers in Japan

***Attempt to Accommodate Differences in Japanese Education***

As Japan has become increasingly more ethnically diverse, it has also become more crucial for Japanese society to develop the capability to accommodate differences. Education is a strong force to accomplish this goal. One of the attempts to bring this

goal to the schools, the 1996 Program on "Education for International Understanding" (EID) which emphasizes diversity education in schools, will be discussed below.

## 1. The Program on Education for International Understanding (EIU)

Back in the General Conference of 1974, UNESCO first introduced a "Recommendation concerning Education for International Understanding, Co-operation and Peace and Education relating to Human Rights and Fundamental Freedoms. The basic principle was to establish "friendly relations between peoples and States having different social and political systems and on the respect for human rights and fundamental freedoms.

In 1996, Japan implemented "Education for International Understanding" in Japanese public schools with an overall goal of "enhancing students' basic qualities and capabilities necessary to take proactive actions from an international perspective" (Miyamoto, 2010). Specifically, the Program was to prepare children for the 21st century as society is trying to cope with rapid globalization.

According to the Ministry of Education, Culture, Sports, Science, and Technology (MEXT), qualities and capabilities that are enhanced in EID include communication skills, capability to live with different cultures, and self-establishment. Schools were to teach students about different countries, and how to interact with foreigners in Japan, as well as to increase awareness of Japanese products and those of different countries.

EID was explicitly introduced in the primary school curriculum from 2002 as one of the many topics for a school subject called "Period for Integrated Studies". The course aimed to 1) to enable pupils to think in their own way about life through cross-culture inquiry studies, 2) develop skills needed to learn and think on their own, 3) to make proactive decisions, in order to 4) be able to solve problems better" (Japanese Ministry of Education, Culture, Sports, Science and Technology).

## 2. The Problems

### ① Problems with Implementation

The Program however was not without its problems. Otani (2017) reports on the implementation and problems related to the Program, and a summary of the findings include the following.

(1) A uniform guideline for implementation was misissng. Although schools were required to implement 70 classes of Period of Integrated Studies based on its overall objectives schools were left on their own with regard to implementation of the program. Depending on each school's policies, EID could potentially be taught in a variety of other classes such as ethics class, extracurricular class, English class, and other subjects in addition to the Period for Integrated Studies.

(2) Furthermore, schools have autonomy to decide the contents and methods for teaching Education for International Understanding.

(3) As a consequence, there were significant differences in the delivery of the program depending on the administrative and teacher motivation of each respective school.

(4) In addition, the Japanese Ministry of Education, Culture, Sports, Science and Technology outlined several other challenges such as a decrease in priority given to EID due to increased focus on English classes.

(5) Added to this was a lack of EID teacher professional development. This problem relates well to a lack of effective Japanese teachers who could teach the subject based on their experience living overseas, as well as failure to maximize use of external resources, such as coordination with local communities.

(6) Most importantly, there was a growing demand to meet the increasing ethnic diverse student population as well as the needs of Japanese children returnees.

Several attempts were made to try different ways to meet the problems, but generally it was difficult to meet all of these challenges. The case of Sakaiminato, is one example of how local communities made efforts to adapt to increased globalization in its communities. To implement the Program goals, the City conducted workshops on diversity for school children outside of school hours. But this was n ot enough for students to accept and respect differences among themselves, especially to accept and respect people who they perceive to be ethnically different. The overall evaluation pointed out to the need to maximize learning within the EIU Program, and to achieve this, schools have to intensify teaching about diversity and inclusion inside the classroom (Miyamoto, 2010).

② Less Visible and More Serious Concern

Although government efforts to increase student awareness of differences can be considered as valuable lessons, children were not learning enough how to cope with differences and how to cooperate with others whom they see as different. There had been tremendous concern with bullying, a common phenomenon in Japanese schools, particularly in relation to children of foreigners. Does the theory of Japanese uniqueness have anything to do with bullying of children of foreigners in Japan? If it does, to what extent does it influence the thinking, consciously and unconsciously, of Japanese children as they relate to other children different from them? The following section discusses experiences of children of foreigners in Japanese schools, based on Hilton and Wakita's "Cross Culture Comparison of School Bullying in Japanese and American Schools" (2020).

Cultural Factors related to bullying in Japan.

(1) Ethnicity

Researchers have found that there are distinct differences in how bullying is experienced by children, depending on various characteristics (Macklem, 2003). A cross-cultural comparison of factors associated with school bullying in Japan and the United States show age, gender, ethnicity and personal characteristics to be related.

Is ethnicity a factor related to bullying in Japan, particularly with children of foreigners? Hilton et al's comparative study (201 0) indicates that although several studies have investigated racial or ethnic differences in the prevalence of bullying or being bullied in the United States, a rich ethnically diverse society, there is no comparable research on these differences for children living in Japan. For instance, a national study on bullying among African American, Hispanic, and Caucasian children (Nansel et al, 2001) indicated that the "content of verbal aggression among racially and ethnically diverse children is noteworthy". The paper goes on explaining that "apparently, the social norms against this form of discrimination are more powerful than those against belittling others' physical appearance or behavior.

(2) Personal Characteristics

Studies differ in their findings on the relation of personal characteristics and bullying. Olweus (1978) found that external characteristics including skin color, are all unrelated to victimization, Hilton's study (2010) however pointed out that general public commonly believes that victimized children are singled out for abuse because of their physical appearance.

Unlike the United States, Japanese culture emphasizes the collective good, group harmony, and conformity, rather than individuality. No studies linking personal characteristics and victimization were found in the United States as it is in Japan. Sugimori (1998) suggests that even slight individual differences can provoke verbal bullying. Sugimori also suggests that the demands of an interdependent culture encourage incidents of bullying and reduce the likelihood that the victim will receive peer support.

The following is a collection of some cases of bullying experienced by children of foreigners in Japan, based on Joel Assogba's report "Fighting against Racism and Bullying in Japanese schools. It shows the diversity and depth of sad experiences of foreign children in Japanese schools and communities.

1. A mother narrates. About two weeks after school started, she came back home from school very sad, telling us that one of her classmates told her to change her natural brown skin into "normal" (*hadairo*—ochre) color.

2. A parent reports. My children have darker skin than the other Japanese children, and many people openly make cruel and racist comments about them: *kitanai* (dirty), *makkuro* (black and dirty), *baikin* (microbe), *unchi* (pooh), *kimochiwarui* (disgusting), *kurokoge* (blackburn), etc. When I go out with them, many parents also point at us as *gaijin* (foreigners). Those people are wrong because my children are not foreigners in Japan; they are born here and are Japanese citizens just like the other Japanese children

3. Seven years ago, a Japanese-born daughter of a Peruvian acquaintance was bullied by her classmates soon after she began attending a public elementary school in Gunma. She had been taunted and ridiculed because of her different looks. Students called her "strange foreigner" and raked their shoes against her heels in the schoolyard.

4. A Japanese grade-school boy who had an American ancestor was abused by his teacher in Fukuoka about five years ago. The teacher pulled the pupil's nose until it bled. He also told him to jump off a high-rise condominium and die because he wasn't a pure-blooded Japanese. The confused child was quoted as asking his parents if he was "dirty'' because he had foreign blood.

5. Some issues are just less visible. Some mothers of foreign children instruct their children not to tell anyone at school that they are of Korean origin because they did not want their children to be teased. Most Japanese of Korean or Chinese origin having been born in Japan and speaking the language perfectly and often cannot be visually distinguished from Ethic-Japanese. To avoid discrimination, they often use a "pass name" *tsumei* (a Japanese full name instead of a Korean or Chinese one) to hide their ethnic background to avoid being discriminated.

6. Assogba's report also includes the following case of bullying. "My best friend invited me to his home after school. His father asked me where I was born. When I replied 'Japan,' he laughed and uttered: 'if you were born here, why are you black?'" said a 7-year-old African-Japanese boy.

7. The list also includes the author's observation on disturbing cases of Japanese returnees who, in spite of having perfect command of English, deliberately speak Katakana English, because they are afraid to sound and appear different.

***The Need for Inclusive Education***

Although the theme on "inclusive education" has been the focus of Japan's legislative and policy approach over the past several decades, there is still a need to shift focus towards "inclusion" in relation to ethnic diversity in the classroom. An extensive report by Assogba (2015) on "Fighting against Racism in Japan "describes some community experiments to address the problem. In summary, some of these include:

1. Seminars for adults in the community focusing on racial diversity in the community.
2. Seminars for adults employing different pedagogies for different sets of participants, using modules focusing on the issue of racism, prejudice, discrimination. Seminars for adults.
3. Local lectures and seminars with the collaboration of PTA and Education Boards.
4. The use relevant resources such reading materials specific to the issues.

Focus on themes such as Human Rights Education is much more than a lesson in schools or a theme for a day. It is a process of equipping students with the tools t o live secure and with dignity. The increased diversity in the composition of local schools could provide best resources and opportunities for student discussions on differences. The real and live experiences with children who are different should be utilized in schools and in the classroom to lead to recognition and acceptance of others that are different. Bottom line it all boils down to culturally responsive teaching.

## *Concluding Remark*s

The myth that says Japan is inhabited by a single race has been challenged; the nation has become increasingly multi-ethnic and multiracial. However, the continued bullying of children of foreign parents indicate that the old Japanese concept of "*shimaguni konjo*" (insular mindset) which promoted Japan as a mono-racial country has been shaken but not completely gone.

The discussions in this paper indicate that a successful "inclusive education" needs a concerted effort in schools and in the community. For children to accept and appreciate differences, they are to be taught how to be critical thinkers, especially with regard to bullying, racism and discrimination. "Critical thinking is learning understand issues through examining and questioning. Young kids can develop these skills early in life, learn to know what is unfair and hurtful".

Japanese children will continue to inherit an even more diverse society from now on. They need to learn the skills of an "inclusive education" from the attitudes and behaviors of adults around them. Perhaps children need to be taught to see and look at others beyond the color of their skin; that skin color is like the different colors of their clothes. Small children, in particular, need to be taught that "Other kids' hands are black, but not dirty; other kids' skin color is not dirt; it doesn't wash away.

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# *Social Justice for Deaf Students in Indonesia: Implementing the Right to Education by Learning Sign Language for All*

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Official Conference Proceedings

**Abstract**
As the government of the Republic of Indonesia initiates a 12-years compulsory study program for all students, both system and study approach are different in each level of education. The higher level of education is, the more specific major the pupils learn in school. Moreover, the education system in Indonesia has a uniformity aiming to reach a good quality standard for the student's future. However, the standard has been designed not for all of the students, but the students with good-hearing. Many cases show that the academic resources for deaf students are less abundant than the students with good-hearing, such as video with no display text or sign language interpreter. The article provides a proposal for all governments worldwide, especially to the government of the Republic of Indonesia, to take the necessary step in recognizing the right to education for deaf students by introducing and asserting sign language into the curriculum study. The aim of bringing this such proposal as a policy is that embodying social justice for everyone without any discrimination. Moreover, it is likely to increase social awareness about the importance of education and remind the society that education can be a powerful weapon to change people's future life once the system of education is designed for all people.

Keywords: Social Justice, Sign Language, Deaf Students, Right to Education, Indonesia

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## Introduction

As one of the 30 basic rights[1] and be proclaimed as one of the human rights in Indonesia, right to education was enshrined under article 28C paragraph (1), article 28E paragraph (1), and article 31 of the Constitution of the Republic of Indonesia of 1945[2]. It means that a concrete contractual between the citizens and the Republic of Indonesia as a state about education is legally bound. The citizens deserve the enjoyment of the right to education fairly. The state obligates to protect, respect, and fulfil the conduct and the enjoyment of this right for each individual. Moreover, under article 1 paragraph (3), article 2, article 3, and article 4 of the Act Number 20 the Year 2003 about the National Education System[3], the implementation of the national education system shall be upholding the following principles of education, such as democratic; fairness; not discriminatory by upholding human rights, religious and cultural values, and national diversity. Also, setting an example; building the will; and developing the students' creativity in the learning process. In Indonesia, the national education system means the overall irrelated in an integrated manner of education components to achieve national education goals, and the fundamental grounds of the national education system are that Pancasila and the Constitution of the Republic of Indonesia of 1945.

Act Number 20 the Year 2003 also specify seven main points which elaborate five rights and two obligations to strengthen the enjoyment of right to education for all.

The former indicates the following points, namely:
a. that each citizen has the equal right to access quality education;
b. those who have physical, emotional, mental, intellectual and/or social disabilities are entitled to get special education;
c. those who live in remote or underdeveloped areas and isolated inidgenous peoples are entitled to special service education;
d. citizens who have the intellectual potential and privileges have the right to receive special education;
e. every citizen has the right to the opportunity to improve lifelong education.
Meanwhile, the latter specifically merely shows 2 (two) citizens' obligations, such as:
a. every citizen aged 7 (seven) to 15 (fifteen) years is obligated to attend primary education program;
b. each citizen is responsible for the continuity of education.

Another law that strengthens the right to education, especially the students with disabilities, is Government Regulation (in Bahasa: *Peraturan Pemerintah*) Number 17 the Year 2010. The main purpose of special education for students with disabilities is to provide educational service for students who have difficulty following the learning process due to physical, emotional, mental, intellectual, and/or social disabilities.

[1] United Nations Universal Declaration of Human Rights. Youth for Human Rights. https://www.youthforhumanrights.org/what-are-human-rights/universal-declaration-of-human-rights/articles-1-15.html. Access 09 November 2020.
[2] The Constitution of the Republic of Indonesia of 1945. Asian Human Rights Commission. http://www.unesco.org/education/edurights/media/docs/b1ba8608010ce0c48966911957392ea8cda405d8.pdf. Access 09 November 2020.
[3] Act Number 20 the Year 2003 about The National Education System. https://komisiinformasi.go.id/?p=1638. Access 09 November 2020.

Also, special education aims to evolve the students with disabilities' potential optimally based on their capability, respectively. It is essential to highlight that under article 130 of this regulation; it states that the special education for students with disabilities can be held to all lines and types of education at the level of primary and higher education level. Among the others categorized as students with disabilities, the deaf student is one of them under article 129 paragraph (3) letter (a). Also, there is a law which recognizes and regulate the rights of the person with disabilities in Indonesia, which was an amendment in 2016, namely Act Number 8 the Year 2016. Under article 5 paragraph (1) letter (e), article 10, article 40 paragraph (3) of Act Number 8 the Year 2016 about Person with Disabilities ("PWD Act"), the right to education for students with disabilities is practically recognized in Indonesia.

However, abundant legal resources in recognizing and protecting the right to education in Indonesia have yet to achieve a full realization for all. An explicit commitment to provide equality in accessing education for all students, fairness in quality of education providers, and not discriminatory by upholding human rights, religious and cultural values, and national diversity are a goal yet to be attained. Some studies found some challenges that shall be addressed, bearing in mind deaf students are a particular group that found many difficulties in enjoying the right to education fairly. Limited choices of school, the confusion due to different applicable sign languages used in the school and society, lack awareness of societies about the culture and language of the deaf, and lack government's coordinative and communication to fulfill the right to education of deaf student's are some examples of challenges in education implementation field in Indonesia, particularly in fulfilling the right to education for deaf students, which are in contravention of provisions of 1945 Constitution and international human rights law.

Inclusive education, in theory, is an alternative for students with disabilities to choose and decide in which school these students want to attend to and also be part of the national education system. However, it is found that many challenges prevent deaf students from attending public schools, such as rejection on the ground of lacking proper teachers and infrastructure facilities[4] and different understandings and parameters to use for deciding the definition of inclusive school across the nation and among the teacher. This further understanding leads to confusion and ambiguities for the school to determine whether their school can be named as an inclusive school or not. Some agree that inclusive school required inclusive predicate is, meanwhile the rest comprehends that the inclusive predicate is not required, but fulfil services to students with disability is a priority. Next challenge is related to the ability of the students with disabilities to socialize. Most of these students are reportedly have lack the ability to socialize with other students when they attend the inclusive or public school. Inability to interact with others is the main factor in this stage. Also, non-deaf students are unaware of the deaf culture and sign language. Thus they do not understand how the rule plays in this zone. In this stage, it is safe to submit that the public is not familiar with deaf culture and language, including the teachers in inclusive school or public school. Therefore, many deaf students prefer to attend a

[4] Ulfah Fatmala Rizky, 'Identifikasi Kebutuhan Siswa Penyandang Disabilitas Pasca Sekolah Menengah Atas', Indonesian Journal of Disability Studies. Vol.1 Issue 1, June 2014, pp. 52-59.

special school for the students with a disability rather than the inclusive or public school in Malang City[5].

Another challenge is that the different applicable uses of sign language in the education field. In Indonesia, there are two applicable names for sign language, namely SIBI and BISINDO. Both are used in daily communication for deaf students and both also nationally recognized. In the formal sector, such as education field, students are taught to use SIBI. On the other hand, the societies, including the university, are well-prepared to accept deaf students use BISINDO for their daily communication method. The varieties of sign language kinds are grown since each area or cities in Indonesia has its local sign language. Therefore, there are many requests from the societies to the government to consider BISINDO as their official sign language for daily uses, although there is no response from the government.

This article aims to present the challenges that deaf students faced in the education sector and submit a proposal to the government to insert BISINDO sign language as an optional subject in the national curriculum. By adding sign language into a national curriculum, many people, not only non-deaf students, can learn how to interact with deaf students. Sign language is also an essential language that humans shall learn, like learning English as a universal language. Furthermore, giving access for deaf students is a necessary step that the government must take since Indonesia has already signed the international convention, which binds Indonesia to recognize, protect, and fulfil deaf students right to education

## Result and Discussion of the Findings

### 1. 12-years compulsary education program

As a home for 260 million people and the largest archipelago globally, Indonesia faces some potential issues, such as society gaps, poverty, and education. To tackle this problem, in the beginning, the government had declared nine years compulsory program. This program's period time has been extended up to 3 years so that the total years of the government education program is that 12 years.[6] Twelve years' compulsory program consists of taking Primary School for six years, finishing Junior Secondary School for three years, and then three more years in General Senior Secondary School.

However, article 5 paragraph (5) states that each citizen has an opportunity to improve life-long education. In addition, the Constitutional Court Decision for the Case Number 92/PUU-XII/2014 explains that regarding the implementation of the compulsory education to secondary education (refer to 12 years program), it should be referred to the government regulation number 47 the year 2008 about compulsory education. Article 7 paragraph (4) states that the local government can set the policy

[5] Ulfah Fatmala Rizky, 'Identifikasi Kebutuhan Siswa Penyandang Disabilitas Pasca Sekolah Menengah Atas', Indonesian Journal of Disability Studies. Vol.1 Issue 1, June 2014, pp. 52-59.

[6]The Indonesia Central Bureau of Statistics, Indeks Pembangunan Manusia 2018, https://www.bps.go.id/publication/download.html?nrbvfeve=MzQ0MzI3OThjNmFlOTVjNjc1MWJmYmJh&xzmn=aHR0cHM6Ly93d3cuYnBzLmdvLmlkL3B1YmxpY2F0aW9uLzIwMTkvMDgvMjcvMzQ0MzI3OThjNmFlOTVjNjc1MWJmYmJhL2luZGVrcy1wZW1iYW5ndW5hbi1tYW51c2lhLTIwMTguaHRtbA%3D%3D&twoadfnoarfeauf=MjAyMC0wMi0wNSAwODoyNDo0MA%3D%3D p.40.

to increase mandatory education level up to the secondary education level. The further implementation arrangements about the compulsory education up to secondary education level are regulated through the regional regulations by each respective region's conditions. For instance, in South Sumatera Province, there is local regulation number 3 the year 2009, which has been amended by local regulation number 17 the year 2014 about organizing free school in South Sumatera Province. Accordingly, all schools, including private and public schools, deserve operational fee aid from the province/district government and local government. Another example is that in Muaro Jambi District, which has established local regulation number 4 in 2013 about Education System Administration. These regulation guarantee the budget provision to ensure the enjoyment of education for those aged from 7 years old to 18 years old.

## 2. The Hardship for Deaf Students

Based on the Central Bureau of Statistics data, 6.952.797 people are experiencing difficulty to hear or listen in Indonesia.[7] In other words, statistically show more than 8% of Indonesia's total population who suffer the hearing problem. World Health Organization affirms about the impact of hearing loss. In social and emotional effects, among people with hearing loss, exclusion from communication causes loneliness, isolation, and frustration.[8] It does not show any good sign for their mental health if there are no third parties, which intervene to address this issue. It is essential to bear in mind that the range for hard of hearing may be mild to severe and deaf people mostly have profound hearing loss, which implies very little or no hearing. Most of them use sign language for communication.[9] Thus, the awareness of sign language uses is essential to promote fair treatment for deaf people, especially to ease the communication method.

However, the public has not ready to address this minority group of people issues because the facilities and accessibility for the deaf students are not well-prepared in the school and the national system. Besides, there is no integrated system, which can be easily accessed to gain information about an individual with a disability; the readiness level for a facility in the school depends on the school policy itself. Therefore, if deaf students want to pursue their study into a higher level, such as a university, they tend to experience some difficulties[10], such as choosing universities which is aware of the deaf culture. It is because not all universities in Indonesia establish a conducive environment for deaf students, including their policies. Katarina

[7]The Indonesia Central Bureau of Statistics, Indeks Pembangunan Manusia 2018, https://www.bps.go.id/publication/download.html?nrbvfeve=MzQ0MzI3OThjNmFlOTVjNjc1MWJmYmJh&xzmn=aHR0cHM6Ly93d3cuYnBzLmdvLmlkL3B1YmxpY2F0aW9uLzIwMTkvMDgvMjcvMzQ0MzI3OThjNmFlOTVjNjc1MWJmYmJhL2luZGVrcy1wZW1iYW5ndW5hbi1tYW51c2lhLTIwMTguaHRtbA%3D%3D&twoadfnoarfeauf=MjAyMC0wMi0wNSAwODoyNDo0MA%3D%3D p.40.

[8] WHO. Deafness and Hearing Loss. 1 March 2020. https://www.who.int/news-room/fact-sheets/detail/deafness-and-hearing-loss.

[9] WHO. Deafness and Hearing Loss. 1 March 2020. https://www.who.int/news-room/fact-sheets/detail/deafness-and-hearing-loss.

[10] Grace Sutrisnadipraja, Nathasya Shesilia K., Sheila Putri F, etc, 'Intervensi Psikoedukasi Dalam Mengatasi Stigma dan Hambatan Komunikasi pada Teman Tuli yang Tergabung dalam Gerkatin Kepemudaan', Jurnal Bakti Masyarakat Indonesia, Vol. 2, No. 1, Mei 2019, h. 191-200.

Tomasevski, the Special Rapporteur for the right to education, submitted a report for Indonesia in 2002[11]. In paragraph 32-33, the Special Rapporteur submitted that

'there was a proposal to include in the forth-coming education law a right for children with disabilities to receive the same education as others, but it was apparently rejected and they are likely to remain confined to special schools.

Very few pupils with special need attend regular school. For children with visual impairments, special classes in regular schools and support teacher should be, but are often not provided. For all others, the only type of education available is special schools. Some of 0.1% of school-aged children attend them. On the basis of the global average of about 1 in 10 children having special needs, much too few are encompassed by the current Indonesian definition.

**a. Sign Language is a Linguistic Right?**

As a state that sign and ratify the International Covenant on Civil and Political Rights, Indonesia shall be aware of article 27 of the covenant which ensures explicitly that linguistic minorities can use their languages in their community. Whilst states are permitted to adopt a national language and may adopt more than one; they cannot discriminate against minority languages that are not officially recognized.[12] In this stage, the writer agrees with the particular idea that is submitting[13] if the language is a human right, then they must be universally applicable to all. Meanwhile, language is both universalistic and particularistic. Yet language as a human right is problematic. However, if individuals are unable to access language, they cannot develop cognitively, which impinges on their human right to agency, autonomy, and dignity. The connection between language acquisition and cognitive development is well established.'

Sign Language users are usually *de jure* residents of the country they live in.[14] Therefore, sign language which can be recognized in Indonesia is the one which tends to use by the users daily for communication and interaction. Setting SIBI as the sign language in the formal education sector, especially special school, users prefer to use BISINDO as their language form means that The Ministry of Education and Culture neglect the users' preference and choice as the main user to enjoy its right to linguistic. The sign language users prefer to use BISINDO as their official language rather than SIBI because the use of BISINDO tends to be easier to applicate and less

[11] Report can be accessed through https://documents-dds-ny.un.org/doc/UNDOC/GEN/G02/154/28/PDF/G0215428.pdf?OpenElement. The code report is E/CN.4/2003/9/Add.1 4 November 2002.

[12] Linguistic Rights. https://minorityrights.org/law/linguistic-rights/.

[13] Hayley Reffell and Rachel Locker McKee. Motives and outcomes of New Zealand sign language legislation: a comparative study between New Zealand and Finland. Current Issues in Language Planning Vol. 10, No. 3, August 2009, 1-21. DOI: 10.1080/14664200903116295. https://www.researchgate.net/publication/249025198_Motives_and_outcomes_of_New_Zealand_sign_language_legislation_A_comparative_study_between_New_Zealand_and_Finland

[14] Hayley Reffell and Rachel Locker McKee. Motives and outcomes of New Zealand sign language legislation: a comparative study between New Zealand and Finland. Current Issues in Language Planning Vol. 10, No. 3, August 2009, 1-21. DOI: 10.1080/14664200903116295. https://www.researchgate.net/publication/249025198_Motives_and_outcomes_of_New_Zealand_sign_language_legislation_A_comparative_study_between_New_Zealand_and_Finland

complicated than SIBI for the users.[15] The difference between SIBI and BISINDO is fundamental. SIBI uses merely one hand to communicate by interpreting words. On the other hands, BISINDO, which has been recommended at the Asean Disabled Persons Conference in December 2011, uses two hands to communicate. In this stage, having two sign languages in Indonesia for the users, SIBI and BISINDO leads to confusion among the deaf as the primary users. Moreover, as the government also experiences some difficulties in making policies related to the accessibility for the deaf, the teachers are not the only party who face problems to provide learning and communicating method to the deaf caused by the existence of the dual-language use.[16] Accordingly, it is safe to submit that the uses of two sign languages lead to controversial decision because the government has been considered to make a decision, which does not represent the sign language users need. Therefore, many protests and requests from many groups of people demand the government amending its policy, which regulates BISINDO as the sign language for the deaf.

### b. The Importance of Inserting Sign Language into National Curriculum

In the 'Q&A with the UN Special Rapporteur on the right to education', Dr. Koumbou Boly Barry, who is the UN Special Rapporteur on the right to education explains[17] that there are countless examples of the worst violation of the right to the education she has witnessed, namely the deniable of education for children with disabilities because those children cannot access educational facilities. Also, she elaborates that the budgeting and decision-making for education must be decentralized because it must be tailored to the needs of specific localities and specific vulnerable groups, such as people with disabilities. Since Indonesia accept Convention against Discrimination in Education on 10 January 1967[18], Indonesia has agreed to ensure the standards of education are equivalent in all public educational institutions of the same level, as referred under article 4 paragraph (b). Also, it means that Indonesia shall obey to ensure by legislation that there is no discrimination in pupils' admission to educational institutions as mentioned under article 3 paragraph (b) of the Convention.

A thesis that specifies research about the function of sign language function in accessing information for deaf students in a special school in Bantul reveals that[19] sign language in the special school is less effective because sign language development in the school area is not supported well. Therefore, by inserting sign language into the national education curriculum, hearing people and deaf students will benefit because sign language is considered a language, and many people can speak with the deaf well. Thus, communication can be more effective, especially in the education sector, and deaf students can attend any schools. Rubio-Marin argues that if

[15] Komisi VIII Dewan Perwakilan Rakyat RI, 'Pemerintah Diminta Kaji Ulang SIBI sebagai Bahasa Isyarat Tuna Rungu'. http://www.dpr.go.id/berita/detail/id/7373. Access 15 December 2020.
[16] Rohmah Ageng Mursita, Respon Tunarungu Terhadap Penggunaan Sistem Bahasa Isyarat Indonesia (SIBI) dan Bahasa Isyarat Indonesia (BISINDO) dalam Komunikasi'. Inklusi, Vol. 2, No. 2, Juli – Desember 2015. http://ejournal.uin-suka.ac.id/pusat/inklusi/article/download/2202/1002. https://en.unesco.org/news/qa-special-rapporteur-right-education.
[17] UNESCO. 'Q&A with the UN Special Rapporteur on the right to education'.
[18] UNESCO. Conventions – Indonesia. https://en.unesco.org/countries/indonesia/conventions.
[19] Riski Purna Adi. Thesis: Fungsi Bahasa Isyarat terhadap Kemudahan Akses Informasi bagi Siswa Tuna Rungu di Perpustakaan SLB Neger 1 Bantul. Yogyakarta. 2009. Digilib.uin-suka.ac.id/38027/I/13140077_Cover_Halaman_Bab_I_BAB-V_DAFTAR%20PUSTAKA.pdf.

one does not understand the language in which education takes place, education itself becomes meaningless.[20] In other words, deaf students who interact with the teachers, who cannot speak sign language, are similarly disempowered by the majority language's inaccessibility. The point of attending the class to gain knowledge will be useless. Accordingly, there is no transfer of knowledge. The conduct of fulfilling the right to education is a failure because many generations of the deaf children have left school with an imperfect mastery of the curriculum, unintelligible speech, limited lip-reading skills and an average literacy age of eight years.[21]

Moreover, another study reveals that[22] 50% of deaf students are willing to pursue their study in public school to socialize with other students. 3 out of 4 deaf university students state that the varieties of study subjects in inclusive school are better in quality and broader in number compared to the number subject in a special school for students with disability. However, the teachers' ability to communicate in the special school are more fluently than teachers in the inclusive school or public school.

It is essential to highlight about reasons why the public does not become familiar to deaf culture and sign language, namely:

First, the consistency of government, including local, district and national level, in promoting rights of the deaf as a minority group among society is questionable. 'not consistent' in this stage means that not all of the government institutions give full attention to the deaf's need in accessing information in the public area, although the regulation and the law require the government to do so. For instance, they do not provide sign language interpreter services in public spots, not serving written texts in any published video commercial. Thus, private sectors consider that it is not their obligation to provide at least accessible text for deaf people when they share any public information. Meanwhile, the government intervene in a necessary step to ensure deaf people rights. The study found that [23] there is no standard for sign language interpreter in Indonesia, which means that no certification required to be a sign language interpreter. The common standard for someone to be considered as expertise in sign language is that they can speak sign language fluently and communicate with the deaf people. Juniati Effendi, one of Indonesia practitioners for sign language in her writing, submits that those sign language interpreters who practice in Indonesia can be considered illegal sign language interpreters because there is no law regulating the requirement be fulfilled by the sign language interpreter. This fact strengthens the argument that the government does not give full attention to

[20] Hayley Reffell and Rachel Locker McKee. Motives and outcomes of New Zealand sign language legislation: a comparative study between New Zealand and Finland. Current Issues in Language Planning Vol. 10, No. 3, August 2009, 1-21. DOI: 10.1080/14664200903116295. https://www.researchgate.net/publication/249025198_Motives_and_outcomes_of_New_Zealand_sign_language_legislation_A_comparative_study_between_New_Zealand_and_Finland

[21] Hayley Reffell and Rachel Locker McKee. Motives and outcomes of New Zealand sign language legislation: a comparative study between New Zealand and Finland. Current Issues in Language Planning Vol. 10, No. 3, August 2009, 1-21. DOI: 10.1080/14664200903116295. https://www.researchgate.net/publication/249025198_Motives_and_outcomes_of_New_Zealand_sign_language_legislation_A_comparative_study_between_New_Zealand_and_Finland

[22] Ulfah Fatmala Rizky, 'Identifikasi Kebutuhan Siswa Penyandang Disabilitas Pasca Sekolah Menengah Atas', Indonesian Journal of Disability Studies. Vol.1 Issue 1, June 2014, pp. 52-59.

[23] Juniati Effendi. 'Penjurubahasaan Dalam Bahasa Isyarat'. 118.98.228.113/kbi_back/file/dokumen_makalah/dokumen_makalah_1540354711.pdf

the deaf culture and need and fails to make progressive realization referred to under the covenant and international human rights law.

Second, sign language is not considered as a language. In other words, the government is only focusing on developing a curriculum in which students can speak foreign languages, such as English, fluently. Therefore, learning a foreign language is common to learn in school or private language institutions. On the other hand, learning sign language tends to consider for those who need it or for the users only. This can explain why the government institutions and private sectors only interpret their "product" from Bahasa into, at least, English, not into sign language. What 'product' means by this is that all things that aim to share for the public, such as vlog, started beginning very popular to watch in Indonesia nowadays or podcast. When the government institution started to release podcast or vlog to reach the audience more, they tend to interpret it into English, but not in sign language. Even if there is a sign language interpreter, they will put it in the lower right corner of the screen with a small size. The study found that[24] sign language in Indonesia has been fully recognized or supported, although many deaf communities use sign language BISINDO. As another language, for the deaf, his/her speech is sign language, and as Indonesia as a country with many cultures, deaf people have their own culture, which is called deaf culture. Therefore, it is essential to consider sign language as a language for some people because the existence of the language gives much values and benefits for those people. Sign language is vital to be considered as a language, especially for deaf people and hearing people. The study reveals that[25] if individuals are unable to access language, they are unable to develop cognitively, which impinges on their human right to agency, autonomy, and dignity. The connection between language acquisition and cognitive development is well established. Extreme accounts of language deprivation obstruct agency acquisition, which abrogates an individual's dignity and autonomy. These are grounds to argue that denial of access to sign language, or the state's failure to support that access positively, is a breach of linguistic human rights for deaf children who cannot naturally access a spoken mother tongue.

Next reason is that deaf culture has not been introduced into the national education curriculum. In Indonesia, some private communities conduct a sign language lesson for an individual who has a willingness to learn sign language. The cost is affordable and open to the public. However, it is unlikely to learn sign language in public school or private school because the curriculum does not provide it. Special School offers sign language lesson for the students only, and most of the school teach sign language SIBI, not BISINDO. Meanwhile, most users prefer to use BISINDO because the method of BISINDO make the deaf understand quick and fast response. The study finding strengthens this argument by revealing analytical data[26], which shows that only around 8% of deaf respond when the interpreter uses SIBI. On the other hand,

[24] Juniati Effendi. 'Penjurubahasaan Dalam Bahasa Isyarat'. 118.98.228.113/kbi_back/file/dokumen_makalah/dokumen_makalah_1540354711.pdf

[25] Hayley Reffell and Rachel Locker McKee. Motives and outcomes of New Zealand sign language legislation: a comparative study between New Zealand and Finland. Current Issues in Language Planning Vol. 10, No. 3, August 2009, 1-21. DOI: 10.1080/14664200903116295. https://www.researchgate.net/publication/249025198_Motives_and_outcomes_of_New_Zealand_sign_language_legislation_A_comparative_study_between_New_Zealand_and_Finland

[26] Juniati Effendi. 'Penjurubahasaan Dalam Bahasa Isyarat'. 118.98.228.113/kbi_back/file/dokumen_makalah/dokumen_makalah_1540354711.pdf

91% of users react to the interpreter when they use BISINDO. In Great Britain, the Department for Education states that school may choose to offer BSL in their school curriculum or include it as part of their extracurricular activities program.[27]

Another study reveals that hearing students are happy to learn more about sign language BISINDO.[28] The percentage of hearing students' willingness to learn sign language reach 100% and 62,29% of them submits that they want to learn sign language for communication reasons. The rest states that to broaden their knowledge. In this stage, it is safe to submit that inserting sign language to the education curriculum; many societies' elements will benefit from it. The subject's form can be an optional subject so that students who are interested in learning sign language can access it in the school. Moreover, Indonesia ratified Convention on the Rights of Persons with Disabilities (CRPD) on 30 November 2011[29], which means that Indonesia bound as signatories of the Convention. In its definition of 'language', this treaty includes sign languages, which legitimizes sign language at the United Nations level. In particular, art 21 (b) is explicit about state parties' accepting and facilitating the use of sign languages in official interactions'. Official interaction includes government agencies such as the police, social welfare officers and local authority administration. This treaty has responded to the cultural and linguistic identity claims of deaf people. To this end, the treaty endorses deaf culture, Art 30(4) states that persons with disability would be entitled, on an equal basis with others, to recognize and support their specific cultural and linguistic identity, including sign languages and deaf culture.[30]

New Zealand (NZ) is signatories to the International Convention against Discrimination in Education and CRPD and ratifies the Convention in 2008. The New Zealand government provides the NZ community with a powerful benchmark for monitoring future domestic policy than an act, such as producing an NZ Sign Language translation of the CRPD to make it accessible.[31] Moreover, the government made New Zealand Sign Language a third official language and an official language, after the Maori Language and English.[32] This positive, determined policy indicates a

[27] Nick Gibb. Sign Language: Education Q&A. https://questions-statements.parliament.uk/written-questions/detail/2020-09-30/97460.

[28] Grace Sutrisnadipraja, Nathasya Shesilia K., Sheila Putri F, etc, 'Intervensi Psikoedukasi Dalam Mengatasi Stigma dan Hambatan Komunikasi pada Teman Tuli yang Tergabung dalam Gerkatin Kepemudaan', Jurnal Bakti Masyarakat Indonesia, Vol. 2, No. 1, Mei 2019, h. 191-200.

[29] International Disability Alliance. Indonesia Ratifies the CRPD. https://www.internationaldisabilityalliance.org/blog/indonesia-ratifies-crpd.

[30] Hayley Reffell and Rachel Locker McKee. Motives and outcomes of New Zealand sign language legislation: a comparative study between New Zealand and Finland. Current Issues in Language Planning Vol. 10, No. 3, August 2009, 1-21. DOI: 10.1080/14664200903116295. https://www.researchgate.net/publication/249025198_Motives_and_outcomes_of_New_Zealand_sign_language_legislation_A_comparative_study_between_New_Zealand_and_Finland

[31] Hayley Reffell and Rachel Locker McKee. Motives and outcomes of New Zealand sign language legislation: a comparative study between New Zealand and Finland. Current Issues in Language Planning Vol. 10, No. 3, August 2009, 1-21. DOI: 10.1080/14664200903116295. https://www.researchgate.net/publication/249025198_Motives_and_outcomes_of_New_Zealand_sign_language_legislation_A_comparative_study_between_New_Zealand_and_Finland

[32] Rachel McKee. Accessing the Vitality of New Zealand Sign Language. Sign Language Studies. Vol. 17, No.3 (Spring 2017), pp.322-362. Gallaudet University Press. https://www.jstor.org/stable/26191044?seq=1

commitment to the local application of the Convention, which benefits the deaf as a minority group among society.

## Conclusion

Sign language is an identity for the deaf, and the existence of this language is vital to be protected and recognized in Indonesia. By inserting sign language into the national education curriculum, the government fulfil the enjoyment of human rights for the deaf, as referred under international covenants and international human rights law. Since Indonesia is one of the signatories of the covenant, taking progressive realization is a must. The school shall be a place where all students can learn the valuable principle of life, then learning sign language shall not be just a language lesson for students but the value of upholding the human rights for the deaf. Moreover, inserting sign language into the national education curriculum prevents an individual from developing cognitively, impinges on the human right to agency, autonomy, and dignity. Also, it can prevent the state from the human right linguistic breach.

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# *Assessment of Innovative Technologies in India's Education Sector: Scope and Challenges*

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**Abstract**
Traditionally, education has been imparted through classroom teaching methods. This classical approach is slowly changing with the application of Information Technology in education, making it accessible and cost effective. India has steadily adopted the concept of e-Learning, which means using innovative technologies to bring education in the online domain. e-Learning provides a solution, which offers flexibility in learning and diversity in pedagogy for students and teachers. This paper brings out the role of e-Learning in changing the landscape of education system in India. The main aim of this paper is to present a qualitative study of the current innovative technologies being used in education sector in India along with an assessment of the polices related to it. While there is little doubt that the use of digital technologies has improved access to education, enhanced educational attainment levels and enriched the teaching and knowledge gaining experience. However, there exists a research gap regarding the magnitude of these improvements and the current bottlenecks in this area. This paper attempts to bridge this gap by making an assessment of the Government initiatives and their impact using data from both official reports and non-government studies. Some suggestions have also been proposed to address the challenges being faced at ground level. e-Learning has tremendous potential to make education accessible in India, however, it needs more financial resources and better coordination between bureaucratic agencies in order to become successful.

Keywords: E-Learning, Information & Communication Technology (ICT), Digital India, Higher Education

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## 1. Introduction

e-Learning has become increasingly popular in Higher Education sector over the last few decades. The rapid increase in internet-connectivity has propelled the growth of web-based learning platforms (Department of Telecommunications, 2018, p. 10). The concept of e-Learning is an amalgamation of various features such as online learning, virtual learning, distributed learning and open-source learning. In India, e-Learning is accelerating its growth into modern educational systems. Communication satellites, computer networks and emails are supplementing face-to-face learning. During the last century, the Indian education system was heavily characterized by conventional methods of teaching, where students relied on knowledge only from books. Penetration of technology in education has brought a knowledge revolution by creating additional platforms, which add to the resource availability for students and teachers (Bajpai, Biberman, & Sharma, 2019). This has not only made education more accessible but has also resulted in overall improvement of results. Further, the introduction of Information & Communication Technology (ICT) in Higher Education has created opportunities for many educational start-ups to adopt effective teaching and learning pedagogies to cope up with the changing trends in education sector.

In recent years, higher education system has dramatically improved in India and one of the factors is the launch of Digital India campaign in 2015. Launched by the Government of India as a national programme to promote electronic service delivery platforms, it aims to transform the country into a digitally empowered society. e-Learning is one of the aspects of the Digital India initiative and many programmes are currently being implemented to promote online education (MEIT, 2019).

## 2. Research Objectives

i. To examine various developments in Higher Education after the launch of Digital India campaign.
ii. To examine the impact of e-Learning on Higher Education in India.

## 3. Adoption of e-Learning in the Conventional Mode of Learning

“Rote learning, reliance on printed material or book-based learning are the characteristic of the conventional teaching practice.” (Fry, Ketteridge, & Stephanie, 2009). Even though it cannot be claimed that conventional mode of learning will be completely replaced by online learning, however, the progress suggests that the traditional characteristics are gradually changing now. Online education provides a more holistic method of teaching with emphasis on interactive engagement, participation and discovery rather than only passive absorption of facts. Now many higher educational institutions provide personalized and multi-disciplinary courses, access-cum-computing devices to students and teachers and web content to all learners across the country.

e-Learning has been adopted as an essential strategy by institutions to deliver information. Many business models have been established to expand the scope of online education in India. Initially effort has been made to develop a platform that connects prospective students and content providers. Such platforms have played an important role in connecting content providers and curators. In India business models

like consumer-to-customer (C2C), Business-to-Business (B2B) and Business-to-Customer (B2C) have been launched to meet the present-day requirements of customers. The C2C model provides a platform that "connects prospective teachers with students whereas B2B business model is prevalent in higher education, where institutes offer degree or diploma courses to students either through their own platform or third-party aggregators." (KPMG, 2017). According to an analysis "the online education system in India currently stands at US $247 million with an average of 1.6 million users; it is expected to grow to US $1.96 billion with around 9.6 million users by 2021." (Palvia, et al., 2018). This complements the rapid growth and penetration of internet in the deepest corners of India. At the end of March 2020, India witnessed a quarterly growth of 3.4% in the number of internet subscribers as per Telecom Regulatory Authority of India (TRAI) (IBEF, 2020), which roughly translates to an internet penetration of 31%.

## 4. Digital India and e-Learning platforms to promote Higher Education in India

There are three segments of higher education in the country – undergraduate level, graduate level and doctoral level. University Grants Commission (UGC) is the central regulatory authority which gives affiliation to the universities. There are also individual agencies such as All India Council for Technical Education (AICTE), Medical Council of India (MCI), etc. responsible for the regulation, coordination and development of higher education in India. These bodies along with UGC have stared emphasizing on promotion of online learning in higher education (Shah, 2015). Their efforts are supported by Government of India through its Ministry of Human Resource Development (MHRD).

Several schemes have been introduced under the ambit of Digital India campaign in this regard. Some of the important programmes to promote online education include Massive open online courses MOOCs, The 'Study Webs of Active Learning for Young Aspiring Minds' (*SWAYAM*), The National Mission on Education through Information Communication Technology (NMEICT), National Digital Library NDL, The Free and Open-Source Software for Education (FOOSE) and ARPIT. These are briefly explained as under:

**4.1 Massive Open Online Courses (MOOCs):** It is a prominent digital tool used for open and distance learning in higher education. It provides open access to self-learning environments that helps students to connect to the global learning platforms. Courses offered under MOOCs are made available using *Swayam* platform. The knowledge resources are mostly available in the form of recorded lectures delivered to the large-scale participants. At present nearly 84.3% post-secondary degrees and nearly 40% graduate degrees are offered under MOOC's platform (Kumar & Garg, 2020). It was developed by National Knowledge Commission in 2009 with the aim to make knowledge available, connecting different research and educational institutions by the means internet. MOOCs is not only designed to meet the needs of learners but will also serve the purpose of professional training for almost 500 million people by 2022 (Devgun, 2013).

**4.2 National Mission on Education through Information Technology (NMEIT):** It is a Centrally Sponsored Ccheme that provides high quality interactive course modules using Information Technology. The mission was commissioned in 2009 by MHRD for the purpose of enhancing Gross Enrolment Ratio (GER) in higher educational institutions of India. The three core components of this mission are – content generation, low-cost access to research and development, and providing e-learning facilities in higher education institutes. The e-content is based on the curriculum and includes all the disciplines of humanities, social science, fine arts and natural science. The mission works with the help of one stop education portal-*Sakshat* portal. The helpline provides access to e-learning and ICT based education to all learners. The other digital learning platforms like Learning Management System (LMS) for e-PG *Pathshala* provides an open access and hosted on INFLIBNET server and is also accessible through *Sakshat* Portal (UGC, 2017-18). The programme reaches out to every corner of the country by providing single window access to technology.

**4.3** ***SWAYAM*** stands for 'Study Webs of Active-Learning for Young Aspiring Minds programme. It is a digital platform introduced by Government of India to promote lifelong learning and skills. Swayam platform is designed to achieve three principles of education policy- access, quality and equity (Ambedkar, 2020). The courses offered under this platform include school level, undergraduate, post graduate and other professional courses. These courses are free of cost and the candidates who opt for these are awarded with certification and credits on the completion of the course. The important objective is to provide quality in education to achieve digital literacy in a knowledge-based economy (Majumder, 2019). Swayam provides smart delivery of e-content through complete assessment system using audio and video lecture, reading material, online discussions and self-assessment tests. Currently there are thirty-four lakh students enrolled in almost 800 plus courses (MHRD, 2018). Swayam program of Ministry of Human Resource and Development (MHRD) is a robust e-learning platform that aims to bridge digital divide by providing best teaching and learning resources to all students, especially the most disadvantaged. Another most cost-effective means to promote e- learning is through *Swayam-prabha*. These are a set of 32 educational channels that operate through DTH services (Direct-to-Home) throughout the country. These channels are devoted towards telecasting educational programmes by means of GSAT-15 satellite. The motive is to make available high-quality e-content for the students using Swayam-Prabha channels (MHRD, 2020).

**4.4 National Digital Library (NDL):** It is a virtual repository of e-resources is designed to hold multi-lingual content that serves the students at all academic levels and disciplines. The framework of the project is being developed by IIT Kharagpur**.** The objective is of this project is to provide a single access window to the users, linking national and international digital libraries across globe. The content available to users is in the form of e-books, audiobooks, lecture materials, thesis, reports, articles, journals, question papers and their solutions, simulation tools and video lectures in different streams. NDL India is committed to achieve the long-standby goal of "Education for All" (Rani & Aswath, 2019). It makes knowledge resources available to all the learners at cost-effective and convenient manner. NDL supports the use of technology in key areas like User Interface Federated Search, Interface for Differently-abled Users, Multi-lingual Support, Metadata Extraction, Disaster

Recovery and Analytics. In the present time of Covid-19 pandemic, NDL has bought a paradigm shift by ensuring that every citizen gets technologically empowered through the availability of knowledge resources (Tyagi & Singh, 2014).

**4.5 Free and Open-source Software for Education (FOSSE):** Free and open access to educational resources has been launched by National Mission on Education through ICT to revolutionize the information shared and disseminated. The idea behind launching of open and free source of education is "freedom to share knowledge", since it emerges out of two terms – Free Software Foundation (FSF) and Open-Source Initiative (OSI). FSF takes a value stand on software development and distribution, while OSI promotes the economic and practical side of Open-Source Software (Moore & Thankachan, 2017). FOSSE is a tool designed to reduce the dependency on proprietary software in educational institutions. The medium of instruction through which knowledge is imparted are as spoken tutorials, documentation, and awareness programmes, such as conferences, training workshops, and internships. It is considered to be highly reliable in terms of performance and security as it has an ability to localize content at low-cost application. The purpose is to ensure the development of digital content to increase productivity and quality of education system in India. This project is being implemented by IIT Bombay (MHRD, 2020).

**4.6 Annual Refresher Programme in Teaching (ARPIT**): is an online refresher training designed to enhance the professional development of university faculty. The training modules under ARPIT focus on new and emerging trends in education sector, latest pedagogical practices adopted by the academic institutions and trainings sessions on curriculum development. The training material is circulated using Swayam platform and there is an end term examination after the completion of ARPIT course. The course is conducted every year and the refreshers module is developed by National Resource Centre's (NRCs) to ensure career development of academic faculty of the universities.

## 5. Impact of e-Learning on Higher Education in India

The above discussion gives an indication about the growth of online education in India. Post Covid-19 pandemic, online education has received a huge impetus in all states. The closure of colleges and universities forced all institutions to revamp their infrastructure and provide online education facility to students. The consequence of Covid-19 pandemic on education can be gauged by the fact that MHRD's e-learning platforms saw a nearly five times increase in access by stakeholders (Ministry of Education, 2020). For instance, The National Online Education Platform *SWAYAM* was already having 26 lakh subscribers in 574 courses and post the lockdown in the country, it was access 2.5 lakh time till April 2020 as compared to 50,000 times in March 2020. Similarly, the National Digital Library used to see an average strike rate of 22,000 time daily. However, post Covid-19 pandemic, the average daily strike rate went up to 1,50,000 time and more. These figures show that innovative technologies proved to be a game-changer in delivery of education at the higher education level.

Considering the positive feedback from the stakeholders, Government of India has increased its spending on e-education projects annually. Table 1 below shows the spending pattern of the government from FY 2015-16 to FY 2018-19:

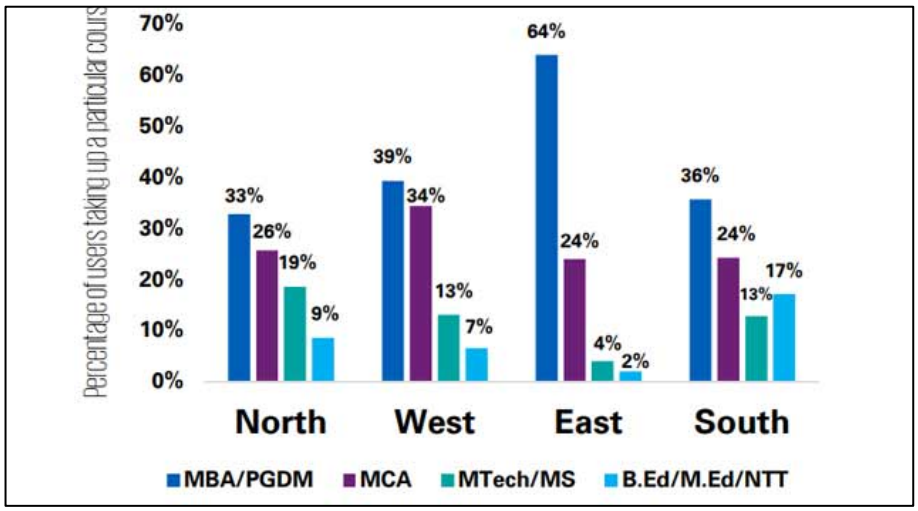
**Table 1: Amount spent by Government of India on e-Education projects (Rs. crore)**

| S. No | Name of scheme | 2015-16 | 2016-17 | 2017-2018 | 2018-19 |
|---|---|---|---|---|---|
| 1 | SWAYAM project | 52.00 | 61.00 | 63.07 | 44.97 |
| 2 | e-pathshala, NROER, MOOCs (SWAYAM) | 1.9 | 2.17 | 3.01 | 1.39 |
| 3 | e-learning by NIOS | 0.77 | 0.69 | 0.81 | 0.50 |

Source: Ministry of Education, (2018).

The increase in government's expenditure has given a fillip to the adoption of e-education. Further analysis of its impact brings out more trends. According to a report by KPMG and Google (2017), among under-graduate, diploma and post-graduate courses, online education has mostly been dominated by post-graduate courses as can be seen in Graph 1 below:

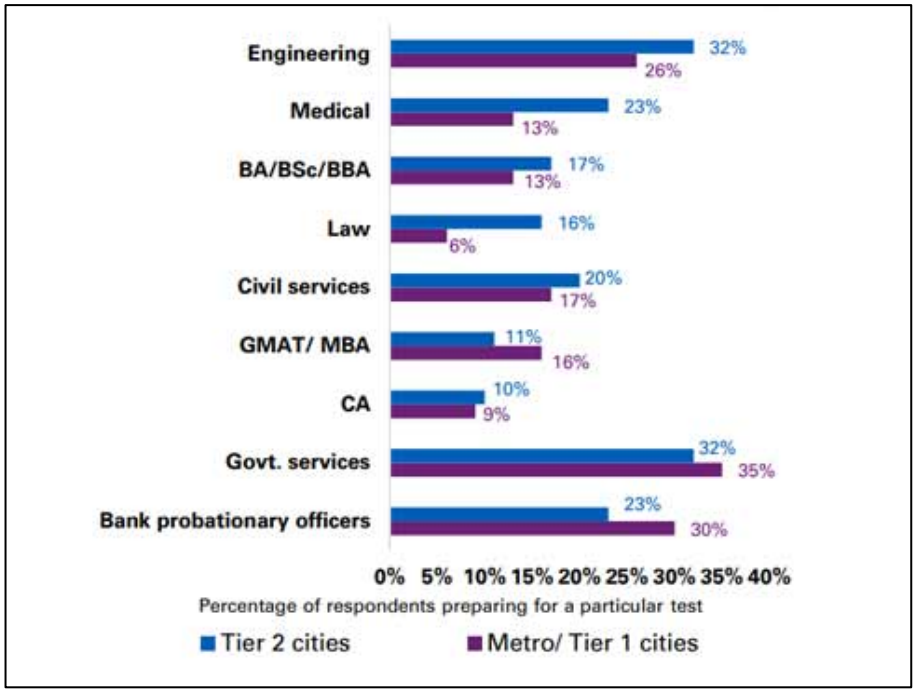
**Graph 1: Course-wise preference of online higher education across geographies in India (2017)**




Source: KPMG Report: Online Education in India: 2021

The above graph shows that online education for pursuing MBA/PGDM courses is highest among students when it comes to higher education courses. This indicates that students at the higher education level prefer to take online courses which will help them to get jobs easily in future. Further, the study also shows that when it comes to the comparison between Metro/Tier 1 cities and Tier 2 cities, the students in the former cities prefer job-focused online test preparation courses while the students in the latter cities prefer online course focused on undergraduate degrees. This is shown in graph 2 below from the same study:

**Graph 2: Tier-wise adoption of test preparation courses (2017)**




Source: KPMG Report: Online Education in India: 2021

The above analysis brings out the impact of innovative technologies in supplementing the conventional forms of education in India. Even though it cannot completely substitute the physical classrooms in higher education, it has the potential to be a strong viable option for knowledge delivery. There are many factors which limit the full success of online higher education in India. Firstly, the Gross Enrolment Ratio (GER) in higher education stood at 26.3% in 2019, which was lower than the global average of 36.7% (Ravi, Gupta, & Nagaraj, 2019). This is quite low when considered in terms of the number of youth population in India. A low GER at higher education level means that majority of the students do not pursue higher studies and remains unaffected by the developments in online education. This is compounded by other limitations such as poorly developed digital infrastructure particularly in rural areas/tier 3 cities, lack of uniformity in learning materials and course outcomes, poor teacher training and engagement, etc. These challenges must be overcome in order to reap the full benefits of innovative technologies in education.

## 6. Conclusions

This paper brings out an assessment of the developments in innovative technologies in higher education in India. It is seen that higher education has greatly benefited from the advancements in online education particularly after post Covid-19 pandemic. By making higher education affordable, easy to access and synchronized with conventional classrooms, e-learning platforms have proved their potential in the present times. The future of online education is bright since it is backed up by huge market size and positive interest of the stakeholders. Efforts need to be made to improve the quality, expand the system and remove the bottlenecks like poor infrastructure, etc. India's higher education will greatly benefit if the new polices such as the National Education Policy 2020 or the proposed National Higher Education Qualification Framework (NHEQF) addresses these challenges.

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# *Free Speech Guidelines and Ethics in American Educational Institutions: Contemporary Educational Policy and the Constitutional Rights of Students*

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**Abstract**
This paper examines the legal status of free speech in American educational institutions, the need for school leaders to have clear ethical guidelines regarding free speech, the attitude of society toward free speech in schools, and the importance of ethical decision making and personal values in free speech issues. The Constitution of the United States protects the right to free speech in American society, and the Supreme Court has ruled that students in public schools, as members of society, are also entitled to the same right to free speech (Essex, 2005). Teachers and students have a right to free speech according to the law, but some educational institutions may place various restrictions on the free speech of teachers and students. Some school leaders may believe that, in certain cases, reasonable limits should apply to the opinions that students and teachers can express verbally and in writing in an educational environment. School leaders have a duty to avoid harming the rights of students and teachers (Starratt, 2004). The leaders of schools must balance the constitutional rights of students and teachers to free expression and the expectations of a free and democratic society with the need to protect the private lives of individuals in schools from any form of harm. Students must learn that responsible journalism, ethical decision making, and critical thinking skills are essential when exercising the right to free speech in diverse educational environments.

Keywords: Free Speech, Ethics, Guidelines, Educational Policy

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## Introduction

The personal beliefs and values of educational leaders who favor certain restrictions on free speech in schools in some cases may conflict with legal requirements and with the expectations of school stakeholders. Some school leaders may believe that, in certain cases, reasonable limits should apply to the opinions that students and teachers can express verbally and in writing in a diverse educational environment. School leaders are responsible for the safety of a school environment and need to take reasonable measures to protect teachers and students from any form of harm, including psychological harm (Starratt, 2004). The leaders of schools must balance the constitutional rights of students and teachers to free expression and the expectations of a free and democratic society with the need to protect the private lives of individuals from any form of harm. Students must learn that responsible journalism, ethical decision-making, and critical thinking skills are essential when exercising the constitutional right to free speech in a democracy.

## The Use of Free Speech in Educational Institutions

The Constitution of the United States protects the right to free speech in society, and the U.S. Supreme Court has ruled that students in public schools are also entitled to the same right to free speech as other members of society (Essex, 2005). Teachers and students have a right to free speech according to the law, but some school leaders may sometimes try to place various restrictions on the speech of teachers and students. School leaders with strong personal views on potentially controversial topics such as religion or politics may create a school environment that explicitly or implicitly discourages open expression on certain issues in a school. Some high school teachers may try to discipline students who deliberately insult teachers, use foul or threatening language, or express blatantly racist or sexist views. Some colleges and universities have fired teachers for expressing certain points of view that school leaders or community members strongly oppose. American universities have a legal obligation to prevent activities which support dangerous extremist groups (Cram & Fenwick, 2018). Despite having the constitutional right to free speech, teachers and students in the United States are not always completely free to say whatever they wish to say at any time in a school or campus environment.

The increasingly diverse communities that American schools serve increase the chances for controversy in issues related to the use of free speech. Some opinions that teachers or students openly express in schools may offend certain ethnic or religious groups in a diverse community. A code of ethics can provide useful guidelines for the teaching profession (Gordon & Sork, 2001). Some stakeholders may oppose any attempts to place restrictions of any form on free speech in schools, despite legal precedents for such restrictions. Schools and universities need clear guidelines to regulate events and activities related to free speech which may be controversial and cause harm (Lange, 2020). School leaders have a duty to ensure the physical and psychological safety of students while promoting free speech. Universities can protect and promote free speech in a safe campus environment by creating clear guidelines (Ceci & Williams, 2018). Teachers and schools can focus on common goals and involve all stakeholders in the community to create official school guidelines regarding the acceptable use of free speech.

The First Amendment of the U.S. Constitution prevents the congress from creating laws that prohibit the freedom of religion or free speech (Lowery, 2004). The concept of due process in the legal system helps to ensure that citizens and students cannot arbitrarily be deprived of basic rights such as free speech. However, in some cases, school leaders may place restrictions on speech that may cause significant problems in the operation of a school and the maintenance of a safe and orderly educational environment (Wheeler, 2004). A fair balance must be found between the rights of individual students and the needs of all school stakeholders. In the United States, in special cases, some liberties can be limited to prevent harm (Brown, 2016). School administrators and teachers must not be allowed to abuse their authority by punishing students who express views that may be unpopular. Ideas and opinions cannot be banned on university campuses simply because they are unpopular (Kaplan, 2007). Aristotle described the delicate balance point that is situated between two extremes in ethical decision-making as the golden mean (Beckner, 2004). Wise, ethical, and effective school leaders must consistently strive to achieve a balanced approach in their ethical decision-making process regarding the use of free speech.

**The Present Legal Stance Regarding Free Speech in Schools**

Regardless of the personal values or beliefs of school leaders, students and teachers have a right to due legal process to protect their constitutional right to free speech and other rights. Substantive due process and procedural due process must be strictly followed by the courts in all cases and by school officials when disciplining students for any reason. The U.S. Supreme Court has ruled that students and adults have the same basic rights under the U.S. Constitution, and that students can exercise free speech in schools (Essex, 2005). Past court cases have shaped the present legal stance towards free speech in American schools.

The landmark Supreme Court case of Tinker v. Des Moines Independent Community School District (1969) continues to significantly influence the legal stance towards free speech in schools. The case involved Mary Beth Tinker, a high school student in Des Moines, Iowa. To express her support for a truce in the Vietnam War and her disapproval of America's involvement in the escalating Vietnam War, the student chose to wear a black cloth band around her arm while in school (Driver, 2020). Many teachers and school leaders disapproved of this form of open student protest in the school. The Supreme Court concluded that the act of wearing an armband did not interfere with the operation of the school and was a legitimate form of free speech that the school teachers did not have a right to suppress or prevent (Essex, 2005). The case had a positive impact on education by protecting free speech in schools and by promoting the free exchange of opinions and ideas among students in a manner that is not disruptive to the operation of regular school activities.

A landmark court case involving unethical journalism for a school newspaper set a legal precedent for some restrictions of free speech in schools in special circumstances. The case of Hazelwood School District et al. v. Kuhlmeier et al., (1988) involved a school in St. Louis and the publication of a school newspaper (Buller, 2013). A student journalist in a writing class attempted to publish controversial articles that the school principal deemed to be unsuitable for the school newspaper. The student journalist wrote articles concerning three students who were pregnant and detailed interviews with other students regarding the reasons

surrounding the divorce of their parents (Essex, 2005). The principal believed the topics to be inappropriate for the young students in the high school, was concerned about protecting the identity of the pregnant students, and thought that the parents in the divorce article should be allowed to read the article and to give their official consent before it was published in the school newspaper (Buller, 2013). The Supreme Court ruled in favor of the school and asserted the importance of legal and ethical limits placed on student journalists to protect other students, teachers, and community members from harm (Essex, 2005). The case exerted a positive impact on contemporary education by helping to ensure that student journalists observe ethical guidelines when writing and editing school publications.

Free speech must be allowed on university campuses, but measures need to be taken to avoid causing serious psychological harm to individuals or groups (Cohen, 2017). The decisions of educational leaders regarding free speech are also influenced by state laws and policies. The policies of some state governments can reduce the ability of a university to control or prevent free speech that may promote discrimination or hatred of certain individuals or groups (Constantino, 2018). Students enjoy the First Amendment right of free speech but are sometimes not allowed to write or say whatever they want without regard to ethical conduct and responsible guidelines for free speech.

**Educational Leadership and Ethical Decision-Making Regarding Free Speech**

The views and attitudes of society towards free speech in schools may sometimes seem ambiguous or contradictory. The majority of Americans seem to support the right to free speech at least in theory, but some school leaders or groups may oppose the completely unrestricted use of free speech in schools, especially if the opinions expressed by students directly challenge the personal values, beliefs, and opinions of school leaders, teachers, and parents. Unrestricted free speech in schools may lead to lively debates and highly developed critical thinking skills in students. Unfortunately, if teachers and students use unrestricted free speech to deliberately provoke or attack specific individuals and groups, the result may be bitter conflicts between individual stakeholders and groups that significantly disrupt school management and operations. A moral compass is as important in the decision-making process of school leaders as technical and administrative skills (Starratt, 2004). Educational leaders without a moral compass might ignore abuses of free speech that harm others and divide the school community, diminishing the effectiveness of school leadership and management. Unethical, authoritarian school leaders might be tempted to restrict free speech in schools and to heavily censor student publications to suppress valid criticism. Effective school leaders must actively engage in ethical decision-making and strive to promote free speech while protecting individuals and groups in a school and in the surrounding community from potential harm.

School leaders are important role models for students and for community members, and a strong sense of justice, empathy, and caring should influence the decisions of leaders in diverse communities (Gorman & Pauken, 2003). Educational leaders must try to avoid extreme positions and try to act in a balanced, responsible manner that vigorously protects individual rights and upholds the democratic tradition of freedom of expression in various forms. School leaders must set a good example through their statements, policies, and actions for future leaders to follow in a free, democratic, and

open society that values individual rights and that respects a wide range of views and opinions.

The landmark case of Hazelwood School District et al. v. Kuhlmeier et al., (1988) demonstrates the importance of personal values, empathy, and ethical decision-making for school leaders. An educational leader such as the principal in the Hazelwood School District can believe in the fundamental importance of free speech in schools and society and in the ethical responsibilities that the use of free speech requires. The Hazelwood School District principal carefully balanced the needs of the school and the rights of community members with the rights of the student journalist in an ethical and responsible manner that the court accepted (Buller, 2013). The actions of the principal were responsible, avoided unnecessary harm to many students and community members, and set a good example of responsible leadership in matters of free speech and student journalism for all school stakeholders. Citing legal precedents, school leaders may temporarily restrict the free speech rights of some students in some cases to avoid unnecessary or excessive harm to certain individuals in the school or community.

## Conclusion

American students possess the same basic constitutional right to free speech as adults in society. The use of free speech in schools requires critical thinking skills, careful ethical decision-making, and entails a responsibility to engage in ethical journalism that does not cause harm to individuals or groups. An ethical and effective school leader has a duty to act to avoid harm to any stakeholders in an educational environment (Starratt, 2004). In some cases, a school leader may need to temporarily place certain restrictions on the free speech rights of some students to avoid unnecessary or excessive harm to other students, teachers, parents, or members of the community. American society supports the constitutional right to free speech, but the free expression of opinions is sometimes restricted overtly or covertly in American educational institutions. An ethical educational leader must be willing and able, when necessary, to carefully balance the free speech rights of students and teachers with the interests of all school stakeholders and members of the surrounding community.

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# *The Effects and Challenges of Adopting the CLIL Approach at a Japanese University: Exploring Ways to Provide Language Support Effectively*

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**Abstract**
This study investigated the effects and challenges of implementing the hard CLIL (Content and Language Integrated Learning) approach in an all-English lecture course at a Japanese university, with the focus on language support to facilitate the students' understanding and learning. The theme of the course was English as an international language, which aimed to have students study how and why English is used as a means of communication across countries based on geographical-historical and socio-cultural factors. This study was conducted in the form of action research over the course of the semester, with the researcher as the dual-qualified instructor to teach language classes and content classes. There were 19 students in the class, and their English level was from intermediate to upper intermediate. Throughout the semester, six types of language support were integrated into this course: vocabulary building, note-taking check, writing check, reading exercises, communicative activities, and pair or group discussion. Based on the instructor's observation and the feedback from the students, this study showed that concise and explicit language instruction at the beginning of the class enabled the students to understand the following lecture better and that group activities which had clear goals relevant to the students' experience were the most engaging and effective forms of in-class language support. The biggest challenge was maintaining a balance between content teaching and language support. The students demonstrated a satisfactory understanding of both the contents and the language, indicating that the hard CLIL approach was highly effective.

Keywords: CLIL, Japan, University Education, Language Support

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## Introduction

In teaching academic subject courses in English at Japanese universities, it can be necessary to provide language support for students whose English level is not high enough to understand the contents fully in English. One way to address this issue is to adopt the content and language integrated learning (CLIL) approach. CLIL is defined as "a dual-focused educational approach in which an additional language is used for the learning and teaching of both content and language" (Mehisto et al., 2008, p. 9). In other words, using the CLIL approach can provide students with the opportunity to learn about academic subjects while obtaining necessary language skills to understand the contents better.

One of the guiding frameworks of CLIL has been the 4Cs framework. The framework consists of four dimensions, which are content, cognition, communication, and culture, and emphasizes the inter-relationship and integration of these four dimensions in implementing the CLIL approach (Coyle, 1999, 2007; Coyle et al., 2009). For Coyle et al. (2009), the cultural dimension is the most important element in this framework because it is a "key to deeper learning and promoting social cohesion" (p. 12). Mehisto et al. (2008), in providing another framework, identified 30 features integral to the CLIL methodology and classified them into six categories of multiple focus, safe and enriching learning environment, authenticity, active learning, scaffolding, and co-operation (pp. 29-30). For Mehisto et al. (2008), the driving principles of CLIL are cognition, community, content, and communication, with cognition being the central element of an effective implementation of CLIL (pp. 30-31).

The term CLIL was first developed in Europe in the 1990s (Coyle, 2007, p. 545). This approach has since "spread widely in Europe in the past few decades" with varying implementation "across and even within countries" (Roiha & Mäntylä, 2019, p. 1). As such, the CLIL approach has been adopted at different stages of education for various subjects, and research findings have been accumulating. At the level of primary education, Pladevall-Ballester (2018), for instance, compared the motivation of learning English over two years between the Spanish students who experienced CLIL classes and those who did not. The study pointed out that the students who were in the CLIL group tended to show more positive attitudes toward the foreign language learning experience than those who were in the non-CLIL group although both groups showed and retained high intrinsic and instrumental motivation (p. 781). In addition, the study compared arts and crafts classes and science classes and showed that the CLIL approach had a more positive impact in arts and crafts classes (p. 782).

Longitudinal studies have also been conducted in order to analyze the long-term effects of CLIL on primary and secondary school students. For example, Roiha & Mäntylä (2019) conducted semi-structured retrospective interviews with Finnish adults who used to be in the English-medium CLIL program in primary and secondary schools to investigate their English language self-concept. The results indicated that CLIL is beneficial in developing and retaining a positive self-concept in a foreign language (p. 11). Martínez Agudo (2020) also focused on primary and secondary education and compared the impact of CLIL on the development of English language competence of students in eight public schools (CLIL and non-CLIL) and two charter schools (non-CLIL) in Spain. The study showed that the students in the CLIL program in public schools demonstrated a higher English competency than those in the non-

CLIL program in public schools. However, such significant differences were not observed between the students in CLIL programs in public schools and those in non-CLIL programs in charter schools. As such, the author concluded that the CLIL approach seems to be the more advantageous approach at least in public schools (p. 44). Moreover, Hughes and Madrid (2020) investigated the impact of CLIL on the development of content knowledge in science also in Spain. Their study showed that the effect of CLIL was not obvious in primary education but that the CLIL approach had a positive impact on the performance of students in secondary schools.

Research more specifically targeting secondary school students has also been accumulating in Europe. For example, Castellano-Risco et al. (2020) investigated whether differences in instructional approaches influenced the lexical development and found that the CLIL approach promoted the students' development of receptive vocabulary. Hurajova (2019) looked into a bilingual English program in a secondary vocational school in Slovakia and claimed that the CLIL approach seemed to be one of the factors enhancing the students' competence in English. The same tendency was observed in Denman et al. (2013), with a vocational school in Netherlands.

The CLIL approach has been adopted at the university level as well (e.g., Hellekjær, 2010; Martín de Lama, 2015). However, as observed in Macaro et al. (2019) with the examples from Italy, the EMI (English medium instruction) approach seems to be a more widespread approach at universities in Europe. EMI in a strict sense is defined as "[t]he use of the English language to teach academic subjects (other than English itself) in countries or jurisdictions where the first language of the majority of the population is not English" (Macaro, 2018, p. 1, as cited in Macaro et al., 2019, p. 4) and can be interpreted as an approach which mostly focuses on the content instruction without language support.

In Japan, where the current study took place, CLIL has been gaining popularity especially in English education (Brown, 2015, p. 1). There has been an increasing amount of research and publications particularly in university bulletins over the past several years. The number of articles containing the keyword CLIL on CiNii (https://ci.nii.ac.jp/), which is a database of publications in Japan, more than doubled between 2013 and 2019. This search on CiNii also revealed that CLIL in Japan, when the approach is adopted, has mainly been in English language classes unlike in Europe. CLIL was originally developed as "a set of methods that could help subject teachers support the language needs of their students" (Ball et al., 2015, p. 27), and this content-led approach is now referred to as hard CLIL. On the other hand, the language-led CLIL approach, which puts more emphasis on the development of the target language skills than the content knowledge, is referred to as soft CLIL (Ikeda, 2013, p. 32). This means that soft CLIL has been the more mainstream CLIL approach in Japan, not hard CLIL. This is partly because Japan is in an English as a foreign language (EFL) context, where English is not widely used outside of the classroom. Therefore, it is necessary to investigate the applicability of the hard CLIL approach to academic subject courses offered in English at Japanese universities.

Content-related classes taught in English at Japanese universities can be classified along the continuum from soft CLIL to EMI as illustrated in Figure 1. This figure only aims to show the relation of CLIL and EMI, so other approaches containing content instruction are not included. If EMI courses are defined as lectures and seminars

taught by subject instructors without language support, then the hard CLIL can be considered as EMI courses with systematic language support. Ball (2018) emphasizes that "the axis of hard CLIL is *language support*" (p. 225). As language support is the essential aspect of hard CLIL, previous studies have identified effective strategies for providing language support in hard CLIL courses including teacher talk (Coxhead, 2017), repeated exposure to related language in activities (Turner & Fielding, 2020), use of textbooks (Coxhead & Boutorwick, 2018), scaffolding (Mahan, 2020; Yakaeva et al., 2017), and development of materials designed specifically for hard CLIL (Ball, 2018).

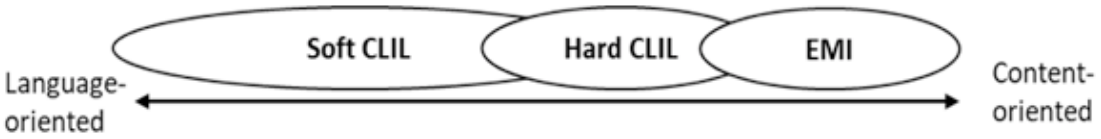


Figure 1: Content-Related Classes Taught in English at Japanese Universities

The present study is a case study on the implementation of a hard CLIL course at a Japanese university for one semester in order to explore its effects and challenges with a focus on language support. This study was conducted in the form of action research, which took place in the course the researcher was teaching. In the following sections, the context of the study will be first explained in the methodology section. Each stage of the action research, that is, the planning phase, the implementation phase, and the reflection phase will then be described, followed by the discussion and implications of the hard CLIL approach.

## Methodology

### Context of the Study

The present study took place in the department of foreign languages at a private university in Japan in the academic year 2019 (AY2019). In Japan, the academic year starts in April, and all the courses in AY2019 at the university were held on campus. The university follows the semester system, and the study was conducted in the spring semester, which lasted for 15 weeks excluding the final examination weeks. Most of the courses at the university only meet for 90 minutes per week, and it was the case as well for this course. It was an elective course for third year English majors who had just returned from a study abroad program of six months or one year in the United States of America, Canada, Australia, New Zealand, or Malaysia.

The course was labelled as an "English lecture" course. It was a course in the English language curriculum, and the instructor was responsible for deciding its structure and the contents as long as the main focus was on the content instruction. In other words, the course was in an ideal environment to implement a hard CLIL approach. The instructor was dual-qualified to teach English language courses and content courses related to applied linguistics and English education.

### Participants

There were 19 students in the course. As mentioned above, they were in a program which required them to participate in a study abroad program. Most of them belonged

to the English language program in their respective university when they studied abroad, and as such, it was their first time to take a semester-long academic subject course fully in English. The students' English level was from intermediate to upper intermediate.

**The Planning Phase**

First of all, it was necessary to select the theme of the course. As the instructor of the course, I chose "English as an international language" as the theme. The academic reason behind this decision was that it was a suitable theme for English majors who had studied abroad. The practical reason was that it was one of the themes I was qualified to teach as a content instructor. The objective of the course was to have students study how and why English is used as a means of communication across countries and cultures with the focus on geographical-historical and socio-cultural factors. *English as a Global Language* by Crystal (2012) was assigned as the textbook because this was a well-known introductory book to the field of English as an international language. The Canto classics edition (Crystal, 2012) was the same as the 2nd edition (Crystal, 2003), so the statistics and data were somewhat getting outdated. As such, additional and updated materials were supplemented whenever necessary, and the students were also encouraged to read the textbook critically.

The weekly schedule was then developed loosely based on the topics covered in the textbook. Additional topics were included to make the course more relevant to the students' own experience. Table 1 shows the list of the topics on the syllabus distributed to the students. The course started with the introduction to the concept of global languages along with their advantages and disadvantages. From the third week to the sixth week, the focus was on the geographical-historical factors behind the spread of English, looking at different areas of the world in turn. The course then moved on to the socio-cultural factors which contributed to the spread of English and covered topics such as the media, international relations, and international travel. Topics related to the future of English were covered after the in-class test. The evaluation consisted of both formative assessment and summative assessment. The participation score constituted 40% of the final grade, the in-class test was worth 30%, and the final essay accounted for 30%.

The materials for use during the classes were also prepared during the planning phase. They included PowerPoint slides, lecture notes, relevant video clips, handouts, exercises, discussion questions, and other relevant activities. The details will be explained in the implementation section. When preparing and developing materials, especially for language support, frameworks, principles, strategies, and previous studies on CLIL as well as insights from EFL classes were used for reference. More specifically, the 4Cs framework of CLIL (Coyle, 1999, 2007; Coyle et al., 2009) as well as the four principles of CLIL (Mehisto et al., 2008) were referred to as the frameworks when planning the contents of this course. In developing specific materials, the seven principles for designing CLIL materials were used as a frame of reference; they were, "the primacy of 'task'," "prioritizing the three dimensions of content," "guiding input and supporting output," "scaffolding and embedding," "making key language salient," "the concept of 'difficulty' in didactic materials," and "thinking in sequences" (Ball et al., 2015, p. 176). In addition, examples of language support in CLIL classes in the literature as mentioned above and English activities and

exercises in EFL classes were utilized as reference. Even though the course was labeled as a lecture course, materials that would foster the environment of active learning were mainly adopted

Table 1: Weekly Topics of the Course

| | |
|---|---|
| Week 1 | Orientation, What is a global language? |
| Week 2 | Why do we need a global language?<br>What are the danger of a global language? |
| Week 3 | English varieties of the Inner Circle |
| Week 4 | English varieties of the Outer Circle |
| Week 5 | English varieties of the Expanding Circle |
| Week 6 | English in Japan |
| Week 7 | Political developments and access to knowledge |
| Week 8 | International relations and the media |
| Week 9 | International travel, international safety |
| Week 10 | Review and discussion |
| Week 11 | In-class test and feedback |
| Week 12 | Contrasting attitudes toward English |
| Week 13 | The linguistic character of new Englishes |
| Week 14 | The future of English as a world language |
| Week 15 | Summary of the course, feedback |

**The Implementation Phase**

Typically, a 90-minute class began with a short and explicit language learning activity related to the content of the day. Then the instructor gave a lecture interspersed with short individual, pair, or group activities. A longer group activity or discussion followed the lecture, and the students were asked to review the content of the class by going over the materials and reading the assigned sections of the textbook after the class.

For example, the second week began with a vocabulary exercise on the geographical areas of the world to make sure the students know the English labels of each area and to set up the context for the lecture of the day. The lecture portion then covered the topics of the week, which were the advantages and disadvantages of a global language. Loosely based on the textbook, the instructor first talked about the function of global languages as a lingua franca of people from different areas and how global languages became more important with globalization. Pair discussion was included, for example, to have students think about how they would have visited or kept in touch with someone from another country in the early 1900's and notice how things had changed in a short period of time. The instructor then asked students to think about possible disadvantages of global languages and introduced the concept of endangered languages and linguistic death. After the lecture, the students were divided into groups and worked on a group activity to gather information and prepare a short in-class presentation on an endangered language.

In this particular course with a hard CLIL approach, six types of activities related to language support were mainly utilized. As the focus of this action research was the language support in a hard CLIL course, the rest of this implementation section

describes these six types of language support activities. As shown in Figure 2, they were vocabulary building, note-taking check, writing check, reading exercises, communicative activities, and pair or group discussion. Among the six types, vocabulary building was the most language-oriented type of language support, whereas pair or group discussion was the most content-oriented type of language support in this course. Some activities were included before or after the lecture as independent activities related to the lecture, while others were integrated in the lecture portion itself.

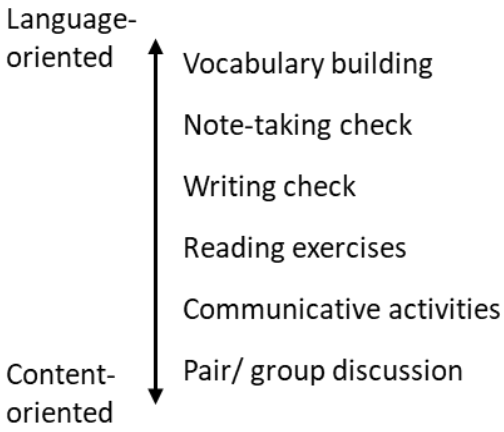


Figure 2: Six Types of Language Support Activities Utilized in the Course

The first type of language support was vocabulary building. Explicit vocabulary building exercises such as identifying definitions were often included at the beginning of the class to cover the main technical terminology of the day. For instance, adjectives related to English as an international language such as *linguistic*, *various*, *geographical*, *historical*, and *official* were reviewed at the beginning of the third class. Similarly, sociolinguistic terminology such as *pidgins*, *creoles*, *indigenous languages*, and *lingua franca* was introduced at the beginning of the fourth class. The instructor also included definitions and explanation of challenging English words in the teacher talk so that students could understand them without looking up the dictionary during the lecture.

The second type of language support was note-taking check. The students were encouraged to take notes during the lecture portion as much as possible. The important information was highlighted on the slide to make it easy for the students to decide what to write down. The slides were not distributed in the form of handouts although it was allowed to take pictures of the slides whenever necessary. The students were sometimes asked to compare their notes with each other to check if they were following the lecture. The instructor also occasionally checked what they had written down.

Another type of language support related to writing was writing check. This third type of language support was mainly for the final essay. There were essay guidelines and rubrics provided by the English language committee of the department, so the students were asked to follow the guidelines. The guidelines outlined the expected structure of the essay with specific instructions on the elements of each paragraph. The students did not have prior experience with writing academic essays of this length, and all of them were taking a course on academic essay writing in the same semester

as this course. The two courses were independent from each other, and the students were working on entirely different topics in their academic essay writing course. In order to assist the students with the topic selection, the instructor presented five possible topics for the final essay. The most popular topic was "English will remain as the international language at least for the next 100 years. Do you agree?" As they were struggling with writing, the instructor decided to use most of the class time in the 13th class for in-class writing time and provided short tutorials with each student, checking their draft and giving feedback. The students were also encouraged to read each other's draft and provide peer feedback during this time.

The fourth type of language support was reading exercises. In order to make sure students read the textbook, reading exercises with graphic organizers, comprehension questions, or true/false questions were sometimes included during the class. For instance, for the topic covering the influence of political development in the spread of English, a handout was prepared with a list of famous quotes based on the textbook. The students were asked to identify which famous historical figure said what in which year in pairs, reading the textbook to find out the correct answer. In addition to reading exercises, the instructor quoted from the textbook whenever possible and ask the students to highlight the section together.

The fifth type of language support was communicative activities related to the concepts introduced in the class. For instance, in the class on the role of English in media, the students made a mock commercial in English in groups of three or four to think about cultural differences with Japanese commercials. For the class on the role of English in international travel, the students tried trivia questions on "maritime English" in a quiz show format. They also did a listening exercise on "airspeak" and tried out a conversation between the pilot and the air traffic controller.

Finally, the sixth type of language support was pair or group discussion. Although this was a language related activity in the sense the students needed to speak in English, the focus was heavily on the contents themselves. Some discussion questions asked the students to relate the content of the lecture with their own experience. For example, after learning about the spread of English to North America and Oceania, the students compared the countries they had studied abroad and identified differences in English and customs based on their own experience. Other discussion questions required the students to apply what they had learned in the lecture as in "Do you think that singers have to perform in English in order to reach an international audience?"

**The Reflection Phase**

Necessary modifications and adjustments were made throughout the semester whenever the need arose. This section describes the reflection of the course at the end of the semester based on the instructor's observation and the feedback from the students. The feedback was obtained through open-ended interviews during the semester and the course survey at the end of the semester.

First of all, the theme, the topics, and the textbook were suitable for this group of students. They showed interest in the contents because they were able to connect the contents with their own experience. Moreover, the majority of the students expressed that the lecture was easy to follow and understand. However, there were students who

mentioned that a few lectures felt rather crammed and fast-paced, so the amount of content will have to be reduced for those classes in the future.

Among the six main types of language support provided in this particular CLIL course, vocabulary building, communicative activities, and pair or group discussion were effective. The vocabulary exercises on the main technical terminology of the day at the beginning were in particular effective in helping students follow the lecture of the day. Their understanding of the technical terminology was demonstrated in the short-answer questions on the in-class test. Communicative activities and discussion enabled the students to think about and talk about the contents of the class in more depth together with their classmates in an interactive manner. Reading exercises were not very popular mainly because the students had to take some time to read by themselves. However, reading exercises are necessary to ensure that students actually read the textbook, so they will have to be included with some revision by adding more interactive elements.

On the other hand, note-taking check and writing check were not very effective in the course partly due to the time constraints. Twenty-two and a half hours was not long enough to cover the contents in detail, trying to provide a sufficient amount of language support at the same time. This indicated that for the types of language support which require extensive time and attention, it would be better to collaborate with another language class. In addition, for note-taking check, it might be helpful for the students if the lecture slides are uploaded on the learning management system after the class.

Overall, the students found pair and group activities more engaging and effective than individual activities, and this showed that the students preferred activities which involved peer collaboration during the class time. In other words, the environment of active learning seems to be one of the keys for successful language support in a hard CLIL course.

Based on this reflection of the action research, the course was supposed to be reimplemented in AY2020 with revisions and updates. However, all the courses in the spring semester of AY2020 suddenly had to be moved online. Real-time online classes were not encouraged by the university during this semester because not all the students had a stable access to the internet to attend synchronous online classes constantly. Therefore, the course had to be restructured into pre-recoded lectures with weekly assignments and feedback on the learning management system without group activities, and the reimplementation of the face-to-face version will have to wait until on-campus teaching is fully resumed.

## Discussion and Implications

This study has shown that a hard CLIL approach is suitable for Japanese university students without much prior experience of taking academic subject courses in English. It seems to be especially beneficial for students whose English level is not high enough to participate in an EMI course for a semester without language support. In order to implement a hard CLIL course effectively at a Japanese university, this case study has suggested that it is necessary to provide a sufficient amount of concrete language support with clear goals based on CLIL and EFL principles. If implemented

carefully, students can demonstrate a satisfactory performance both in terms of content and language. Feedback from the students was overall positive, and a course with a hard CLIL approach could also be used as a transition course before students move on to EMI courses.

In a hard CLIL course, this research has indicated that concise and explicit language instruction at the beginning does not disturb the flow of the class and can help students understand the following contents better. It is also important for the instructor to deliver teacher talk more carefully than in regular EMI courses to make sure students can follow the lecture and the instructions. In addition, group activities with clear and relevant goals as well as those directly related to students' experience can be highly engaging and effective forms of in-class language support.

On the other hand, the biggest challenge of a hard CLIL course at a Japanese university is to maintain the appropriate balance between the content instruction and the language support within the time constraints. It is important but difficult to identify whether students are experiencing difficulty with the contents or the language (or both) and find the areas where students require assistance. This can be especially challenging in a classroom where students of different English levels are taking the course together. In such a situation, the instructor has to make careful decisions on the amount of in-class language support. It may become necessary to provide extra language support for students with a lower English level during group activities or even outside of the class so that such students can keep up with the course. In addition, more emphasis may need to be placed on the formative assessment so that the final grade would not be affected too much by the initial differences in English language skills.

## Conclusion

In conclusion, the present study was a case study of the implementation of a hard CLIL course at a Japanese university. As this action research has demonstrated, the hard CLIL approach should be encouraged at Japanese universities, especially when teaching a group of students whose English level is from intermediate to upper intermediate. For a hard CLIL course to work efficiently and effectively, it may be beneficial to offer a course taught by a dual-qualified instructor as a CLIL course. That way, the same instructor can oversee the entire process so that it is easier to manage the course and make adjustments as the course progresses. It is not always possible to find dual-qualified instructors for necessary subjects, and if team teaching is not possible either, one solution may be to ask an EFL instructor to provide occasional language support in EMI courses. As with all the courses, it is important to prepare for the course in detail in advance, but the CLIL instructor should also be open and flexible about adjusting and modifying the contents and the language support whenever the need arises.

This case study was in the form of action research, and quantitative data were not collected. In order to analyze the effects of hard CLIL in more detail, comparative studies with EMI courses should be conducted based on both quantitative and qualitative data. Now that some courses are likely to stay online or become hybrid, it would be necessary to further explore the possibility and application of hard CLIL courses in different teaching formats at Japanese universities.

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# *Employing English Literature to Craft Skills: Listening, Speaking, Reading and Writing*

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**Abstract**
The purpose of the present study is to use English Literature to enhance Listening, Speaking, Reading and Writing by the application of Outcome Based Education. The study addressed the need to develop enhanced objectivity and tame the scientific minds of mixed semester undergraduate, Engineering and Computer Science students with emotive aspects. Students comprehended aspects of theories applicable to certain literary texts, analysed and evaluated text based on the precepts. Thereupon, created short stories based on a particular principle of a theory. Objective understanding, analysis and evaluation led to creation of emotive stories. Course Outcomes (COs) were based on Bloom's Taxonomy of understanding, analysis, evaluation and creation. COs aligned with application based creative assessments, involved critical thinking. 111 students elected the subject and benefited from Continuous Evaluation. Calculations on a CO Attainment Sheet showed that 60% of the students scored a minimum 50% of the maximum marks. Progressive application of COs improved skills. Relative Grading depicted the percentage of students against the grades as follows: 6.3% (A+), 25.2% (A), 18.9% (B+), 15.3% (B), 9.9% (C+) and 0.9% (C). 23.4% failures appeared for remedial. Since the target of minimum marks was achieved on the CO Attainment Sheet, this will be raised for subsequent batches, to make the course challenging. Emphasis on rubric based Listening and Speaking individual and collaborative assessment, both peer and formative; will improve learning.Extending this instructional method of English to other fields of study will improve students' communication skills.

Keywords: Outcome Based Education, English Literature, Listening, Speaking, Reading, Writing

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## Introduction

The aim of the study is to use English Literature to teach Communication skills namely Listening, Speaking, Reading and Writing, with the application of Outcome Based Education (Rao, 2015). The objectives are to empower and enable learners to express, empathise, exchange, ideate, create and collaborate.

The paper is based on a study conducted on 111 mixed semester undergraduate Engineering and Computer Science students. Taught in the blended mode, the 36-hour course included 12-hours of synchronous and 24-hours asynchronous learning. Understanding, application and evaluation of aspects of six theories to Literature pieces enhanced reading, writing and hence objectivity; and creation of short stories enhanced writing skills and emotive aspects.

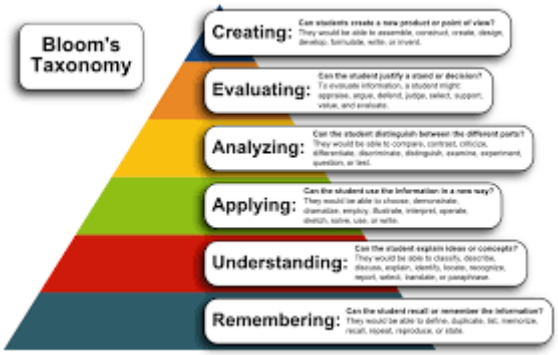



Figure 1: The Course Outcome based on Blooms Taxonomy (Bloom's Taxonomy)

CO 1 Understand theories in relation to societies and cultures.
CO 2 Apply the theories to texts.
CO 3 Evaluate text based on the theories.
CO 4 Create texts with application of a minimum of one aspect of a theory

## The assessments

Three discussions were:
i.) Mention five commonalities of Dalit, Subaltern and Afro American Literature. How can they collaborate to fight oppression? (Oberoi, *Narrativizing The Margin*)
ii.) Apply the concept of AnarchoPrimivitism (Bhattacharya) to the Story "All Creatures Great and Small" (*Our Trees*), giving 3 examples of how AnarchoPrimivitism (Bhattacharya) has been used in the story.
iii.) Summary of an Original story created by students using any one of the concepts/ theories learnt. Giving suggestions to a peer for improvements in story.

Five Quizzes progressively were:
i.) Dalit, Subaltern and Afro American Literature (Oberoi, *Narrativizing The Margin*) and Naturalism (Schütze).
ii.) Existentialism (Aspects of Existentialism), Alienation (Alienation) and Anarcho-Primitivism (Bhattacharya)
iii.) Application of Naturalism in "The Open Boat" by Stephen Crane (Costine) and in Dalit literature in Dr BR Ambedkar's poem "Take a Hammer to Change the World!"(Patchala)

iv.) Application of Existentialism (Paramagururaj, The Elements of Existentialism) and Alienation in *The Hairy Ape* (Mukkera, Theme of Alienation)
v.) Application of Reader Response (Mart, 2019) and AnarchoPrimivitism (Bhattacharya).

Assignments:
i.) Summarise the story "From Small Beginnings" by Ruskin Bond (*Our Trees*).
ii.) Submission of short story with the application of one aspect of a theory

**The Theories**

**Dalit Literature**

Developed as Post-Independence movement Dalit Literature familiarizes with the caste system and untouchability. The caste system in India places *Brahmins* as superior while *Shudras*, called *Dalits* occupy the lowest position. Loyal to science, Dalit Literature portrays brutality, tyranny and pain of a class. Denied education; *Dalits* engaged in menial jobs and faced social segregation. Rebellious *Dalit* writers asserted identity, humanity and respect. Committed socially, they asserted self-esteem, opposed *Brahminism* and denied God and the soul. (Oberoi, *NarrativizingThe Margin*)

Rooted in history, culture and politics; Dalit literary theory is similar to subaltern literatures of African Americans and Marxist that express racism, oppression, exploitation and trauma. The protest Dalit Literature gained international attention by promoting Buddha's rational, and a class free society. (Oberoi, *NarrativizingThe Margin* 252)

Dr Bhim Rao Ambedkar's poem "Take a Hammer to Change the World" is an inspirational poem arousing the Dalits. (Patchala)

**The Theory of Naturalism**

Derived from science, Naturalism equivalent to materialism, believes that all psychological processes were because of matter. Naturalism, resultant of the theory of evolution, studies the biological relation between man and his environment. Man denied free will and choice in action, rejects responsibility and therefore the possibility of guilt. Naturalism unifies biological elements with spiritual forces and higher conception of life (Schütze).

Early Naturalism portrayed genetic diseases, sexual vice, alcoholism and other psychic processes. Zola focused on the relationship between environment and character. Character is resultant of material circumstances, past lives and lack of free will; even a strong struggle causes no change. Every thought and action leaves a permanent mark on the character (Schütze).

Socialisation made man a member of society, rather than an individual. Rather than retribution, violation of conventions of society determined tragic fate. Before Zola, environment and heredity provided basis of Naturalism. Void of organised sentences, the utterances are ejaculatory (Schütze).

Naturalism realistically portrayed life, spiritual forces, character, manners, and use of dialect. Motivation and characterisation are psychological, introspective and circumstantial. Protagonists' evoked sympathy due to their honesty, helplessness, bewilderment, non-aggressive extraordinariness, fruitless striving against unconquerable, cruel fate. Tragic emotions void of resentment and submission, stem from infinite courage and sorrow. Materialistic, mechanical life, made the will unfree, excluded tragic guilt, retribution and catharsis (Schütze).

Naturalism inspires awe, with no veneration by ethical or otherworldly power. Naturalism has transitioned to symbolism. It lays stress on individual and social environment, recognising that no individual can rise above environment and consequences of action. By forming character, the environment presents choices and opportunities to reform by effort of the will. Naturalism has inspired social reform by encouraging unity (Schütze).

Naturalism involves a dramatic, intense exposition of the milieu, circumstantial motivation, and modification of the tragic idea. The tragic hero suffers due to some flaw making the spectators sympathise with him. Realisation that a tragic idea with a tragic, a non-retributive tragic idea was a possibility; drama was divided into two; one with retribution and another without retribution (Schütze).

**Analysis of the Naturalism in The Open Boat**

Naturalism portrays man as unequal to the powers of Nature. Man can survive only with the consent of Nature. "The Open Boat" depicts man's fragile significance. Nature is apathetic to man, who has no free will. For man Nature is an unequal and unfair opponent. In the face of uncaring nature, man has no free will. Portrayed is the theme of survival of the fittest. The individuals in the boat struggle towards a common goal of survival, with each having their own strengths. The characters in "The Open Boat*"* are from lower sections of society (Costine).

Characters placed under the influence of heredity and environment, were observed under hostile conditions. In the late 19$^{th}$ Century and early 20$^{th}$ Century, industrial giants and slums grew. The strong grew in strength and the weak succumbed to insecurity. Darwinism brought struggle for survival, survival of the fittest and natural selection (Meng).

"The Open Boat" portrays Crane's personal experience, on his visit to Cuba as a war correspondent. The vessel capsized, leaving him and the other passengers adrift a small boat. Four people afloat a small boat, struggled to survive. The captain is in command, while the cook paddles. Awaiting rescue, they wavered between hope and despair. Their relentless spirit, against cruel nature, brought them ashore. The story depicts Naturalism through symbolism, impressionism, psychological realism and the psychology of the characters. The characters waver between the emotions of fear, boldness, depression and intimacy. Unlike other naturalists who wrote about survival of the fittest, Crane presented randomness of selection and morality. Characters eulogize as they struggle against indifferent nature. Cut off from the coast, which symbolises society, the characters are alienated and rely upon themselves. The struggle of the characters is that of the spirit and physic. As opposed to Darwin's

survival of the fittest, it was the strongest, the oiler, who did not survive. Camaraderie helped humans overcome (Meng).

**Theory of Existentialism**

Existentialists studies the purpose of creation of the universe, humans and the cycle of birth and death; the answers to which are still elusive. The philosophers and anthropologists have shifted from traditional to modern to understand human origin and their purpose. Traditional thinkers questioned the conception of man while modern thinkers compare and study the growth of cultures and seek answers to the question "what is man?" (Aspects of Existentialism). Anthropology studies humans from physiologic, sociologic, archeologic, psychologic, biologic, linguistic and cultural perspectives. A new branch of anthropology called Anthropological Philosophy, studies human existence and his experiences and connects facts from various branches (Aspects of Existentialism).

Existentialism studies and differentiates the nature of man, his character, personality, behaviour, emotions, feelings, actions, responsibilities and thoughts. Existentialism is similar to metaphysics that studies the existence of humans, human relationships and differences of individual experiences, their interpretation of the world, how humans relate to the society and others' perspective. The harmonious blend of the humans is that of the three dimensional body and dimensionless soul. Additionally, language is studied (Aspects of Existentialism).

Existentialism studies how humans create their own identity in society. Consciousness studied to clarify scientific and philosophical concepts, holds man accountable for his action. Distinguishing between Theist and Atheist, existence ends in death. Existentialists focus on subjective knowledge such as the beliefs, religion, feelings, and emotions, freedom, pain, regret, guilt, anxiety, despair, finitude, alienation, and boredom, etc. Humans first exist, encounter life and then interact with the world giving meaning to existence, defining themselves by actions, and are responsible for their behaviour (Aspects of Existentialism).

**Existentialism in "The Hairy Ape" by Eugene O' Neil**

Yank and the stokers belonged to the liner and were happy before Mildred Douglas the daughter of the liner's owner and representative of the proletariat introduced a crisis. Although driven by social service she fainted upon seeing Yank's ugliness. Desperate to seek revenge from Mildred and her class, Yank went to the Fifth Avenue, but his violent behaviour landed him in jail. He joined the Industrial Workers of the World (IWW) who also reject Yank's violent ways. He then went to the zoo and identified with the gorilla, he opened the cage but the gorilla killed him (Eugene, 2009).

Existentialism means that after birth human consciousness and values determine the meaning of life. Qualities, character and decisions taken determine conscious existence. Yank an animalistic character had the quality of thinking that distinguished him from the other stokers. Long dreamt of social justice and equality. Paddy envisaged living in harmony with nature as in the past. The other stokers with animalistic existence acted as a chorus. Mildred Douglas and the capitalistic class had

a mechanical, modern, luxurious existence. The adornments and mechanical movement of the residents of Fifth Avenue heightened Yank's insignificance and insecurity. Antagonised he is unable to identify with the mass. The non-individualised prisoners too act as a chorus giving information to Yank about I.W.W. The proletariats advocated constitutional methods as opposed to non-political Yank's suggestion of violence. Thrown out of IWW's office, Yank is alienated (Paramagururaj, The Elements of Existentialism)

Yank is the only living character in the play. The insignificant stock characters highlight his insecurities. Yank progressively internalised, leading to his doom. Desire for revenge against Mildred and her class to gain respect and security; made him incapable of rational thought. Imprisoned because of violence against the people of the Fifth Avenue as a demonstration his strength, the people of the Fifth Avenue treated him with mechanical politeness. Yank is isolated and does not belong. This causes existential suffering that further builds his character (Paramagururaj, The Elements of Existentialism)

**Theory of Alienation**

The theory of Alienation defines a social ill that explains the separation of those that belong together. Alienation causes social, political and psychological ills involving self and other. Thus, it involves the necessary problematic separation of a subject and object and the relation between the subject and object that belong together. The subject may be an individual or a group. Alienation maybe from the natural world, society, institutions or social norms. Additionally, the object might be the original subject and people might be alienated from themselves (Alienation).

An unhealthy relationship might not end in separation but a problematic separation results in alienation. Relationships of indifference may or may not be apathetic. Hostility too, may or may not be problematic eg, competing sportspersons may have harmonious, rational and normal relationships. Alienation is resultant of separation conflicts. When deriving satisfaction from estrangement, there is no social conflict, hostility or rebellion. Compounded by language, Alienation relates to social and psychological ills but not to injustice. Alienation involves individual's estrangement from God, legal transfers of ownership and mental derangement. Fetishism and objectification are subsets of alienation (Alienation).

Humans are part of the natural world. The relationship between them is not of domination but a sympathetic appreciation of interdependence. Rather than nature's fury, ruthless treatment of nature like deforestation, pollution and population growth cause alienation. (Alienation).

Alienation different from values, is not wholly negative as it involves attainment of something of value. Man produces from natural things to satisfy needs and creates a relationship with nature. Humans objectify themselves by the power of creation Pre capitalistic societies had undifferentiated unity; present societies have differentiated disunity whereas future communist societies will be in a state of differentiated unity. The second stage is crucial, and involves disunity, after unity and before reconciliation. The first stage had problematic relations. The second stage lacks connect with self or society and the third stage will have a healthy separation. The

second stage involves a liberation of subjects from objects and achieves individuality and freedom from the constraints of society and community. This though absent in the pre capitalistic stage, will develop and be preserved in the future communist stage. Science, technology and industrialisation are not at the root of alienation rather it is because of the division of labour (Alienation).

**Alienation in "The Hairy Ape"**

The Hairy Ape depicts alienation and loss of identity of modern man in the age of industrialisation. The principle characters Yank, Long and Paddy represent the working class and Mildred represents the proletariat. Yank the firefighter and maker of steel, is confident of his strength and existence. He identifies with the machines (Mukkera, Theme of Alienation)

Yank's entire being is shattered when Mildred with the intent of social service, enters the stokehole to see how the other half lives. Upon seeing Yank, she faints out of fear. Resultantly, Yank loses his identity, is alienated and questions his existence in the terrible animalistic working condition. Lowest in the social ladder Yank and the other stokers initially felt that they belonged, as they contributed to society with their strength and as stokers. Mildred acted as a catalyst to awaken Yank from the stupor of his miserable living. Yank upon loosing identity and belongingness begins to think. Frustrated he journeys to the Fifth Avenue to fix Mildred and the entire capitalist class, but they ignore him. Infuriated, Yank lands in prison. When released Yank joins the IWW, in the hope of getting revenge from Mildred and her class by blowing up the steel company of her father. However, IWW rejected Yank's radical thoughts. The erroneous language of Yank is fragmentary and abrupt revealing his identity (Mukkera, Theme of Alienation)

Mildred, the prisoners and IWW, rejected Yank's attempts to belong. Called a filthy beast and hairy ape, in desperation Yank goes to the zoo. The gorilla mirrors Yank's ugliness. It belongs; but not Yank. O' Neill portrays through Yank the plight of the Americans who have no past, future or faculty to think. The inhuman, mechanical life of Americans robs them of human qualities. Animals are better and Yank equates himself to the gorilla, by calling him brother. Yank releases the gorilla, but it crushes Yank and throws him into the cage. Rejected even by the gorilla, Yank belongs only to death. (Mukkera, Theme of Alienation)

**AnarchoPrimivitism**

Humans have an irresistible desire to go back to the primitive stages. Primitivism has challenged the power structures of civilised society. In the age preceding civilisation there was leisure, gender and social equality, interaction with nature, unorganised violence, and nonexistence of formal institutions. Civilisation brought in warfare, hierarchy and the concept of property and curtailed primeval freedom. Domestication strategizes control, mutilates bonds, tames, and enslaves leading to a distorted natural order. Nomads hunted for sustenance, but civilisation necessitated agriculture that culled and usurped nature. Settlements disturbed the ecological balance. Hoarding of natural wealth, curtailed sharing and increased greed that led to exploitation and destruction of natural resources. Thus, primitivism advocated rewilding (Bhattacharya**)**

Rewilding does away with the hierarchical and oppressive domestication. Rewilding entails living in the bioregion with the essential close proximity to the ecology and denizens of the surroundings; and becoming inseparable part of Nature. Going back to the primitive, hunter-gatherer is impossible, as civilisation has progressed too far. The merit of balancing the ills of civilisation with Nature can prevent ecological disasters and have therapeutic value. (Bhattacharya**)**

Rewilding an aspect of Anarcho Primitivism involves restoration of ecosystems to the levels prior to human disturbance. A conservation of all species is necessary for human survival. Intact bio systems are more productive to deal with climate change than the ones modified by humans. Bio systems enable humans derive health benefits and cultural value. Rewilding necessitates public support, understanding and attitude. Conservation of wild life and nature is imperative for human survival (Belwett).

**Ruskin Bond's AnarchoPrimitivism**

The short story"All Creatures Great and Small"reveals Bond's love and connection with nature as he depicts love and companionship with the pets of his grandfather. He writes about love between humans and between humans and animals (Bond, *Our Trees Still Grow in Dehra*). "From Small Beginnings" reveals how Bond derives peace and power from nature and the symbolism derived from insects, birds and the fox; all signalling rejuvenation and regeneration as he achieves success as a writer quartered in the mountains of Himalayas away from the city life (Bond, *Our Trees Still Grow in Dehra*)

**Reader Response Theory**

Reader response theory establishes a relation of the reader with the text. Active reading, emotional and intellectual interaction with the text to derive meaning and eliciting response is the purpose. Classroom discussions of literary text develop morality, enhancing sensitivity, reasoning and comprehension of texts. Accommodation of diverse views through interpretation of language encourages communication and social relationship. Derivation of meaning is by relating it to personal experience. Learners experience and understand other cultures, and verbal and writing skills. Literature pieces help students to understand the use of language for meaningful communication that empowers leaners with creativity. Communication bridges gaps in interpretation. (Mart, 2019)

**Outcome Based Education**

The framework of Outcome Based Education (OBE) was used to teach literary theories that enhanced objectivity and emotive aspects. India, a member of the Washington Accord, follows OBE in all Engineering Institutions. OBE introduced and supported by Government of India's Ministry of Human Resource Development, All India Council of Technical Education and National Board of Education; ensures achievements of national standards and criteria uniformly and appropriately (Rao, 2015).

OBE, a student-centric, constructive system measures the outcomes numerically rather than the traditional method with stress on resources or inputs. OBE facilitates

planning, instruction and assessments. Administrators, teachers and students ensure outcomes. OBE aims to reduce the barriers between Industry and Educational institutions to make the students employment ready through an elaborate process of preparation and evidence collection (Rao, 2015)

This competency-based education ensures work-related curriculum and industry experience among students, faculty and employers. Competencies like abilities, commitments, knowledge, skills and attitude developed through learning rather than teaching. Education, training and experience enable an individual (or an organisation) to act effectively in a job or situation (Rao, 2015, p. 5).

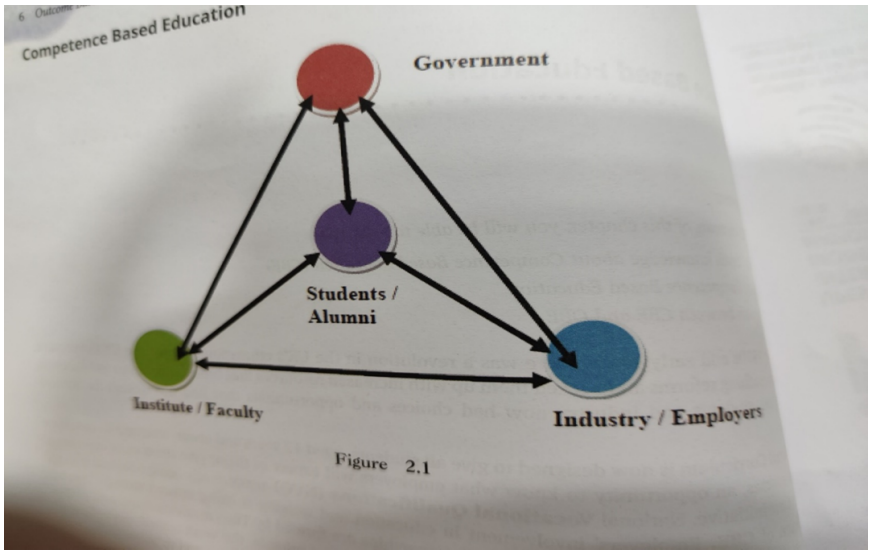



Figure 2: Competency Based Education (Rao, 2015 p. 6)

OBE encourages excellence through continuous improvement by adopting Outcome Based Curricular; learning, assessments and evaluation. The key constituents are Vision, Mission, Programme Educational Objectives, Programme Outcomes, Course Objectives and Course Outcomes (Rao, 2015 p. 1)

The essential input to ensure quality output includes finance, infrastructure and resources; inclusive of processes, control and delivery of education and training. The two approaches involved are outcomes with a focus on content rather than the subject and the second is a cross-disciplinary approach focussing on problem solving and learning collaboratively. The second approach involves lifelong learning, and ensures productive, responsible citizens, who lead successful, fulfilling lives (Rao, 2015).

**Premise**

i.) Students learn in different ways and at different times but all are successful.

ii.) Planning of students' learning ensures successful learning, leading to more success in learning, to achieve different levels of outcomes.

iii.) Educational institutions and faculty control the success of learning.

## Accreditation

Accreditation ensures that a programme or institution meets quality standards and criteria. It is a voluntary exercise and not a ranking system.
Agencies of Institutional Accredited:
1.) National Assessment & Accreditation Council- NAAC under UGC.
2.) National Board of Accreditation (NBA) under AICTE that examines specific programmes rather than institutions (Rao, 2015,p. 7)

Approaches to Accreditation:
1.) Input-Output Based Education
Defines core curriculum, ensures adherence to curriculum, and prescribes curriculum and faculty composition. Teacher centric evidence based output measures, assesses and evaluates only the knowledge of the students.
2.) OBE, stresses on the product, ie the quality of engineers produced, based on performance rather than on the education process. OBE is a system of reverse engineering by first defining what the students will be able to do upon completion of learning, then structuring the curriculum, instruction and assessment to ensure that learning happens.
3.) Basic parameters are set for the outcomes and the specific outcomes and objectives outlined by the programme.
4.) Student centric OBE measures outcomes, looks for evidence of the measurement and improvements.
5.) Outcomes measure and evaluate the knowledge, skills and abilities of the students (Rao, 2015, p. 8-9).

Highlights of OBE system:
1.) Unit/ course reflect the product.
2.) Outcomes reflect industry and national standards.
3.) Learning material is outcome driven.
4.) The stakeholders ie faculty, students, industry, management, alumni, government, parents; special interest groups determine programmes and contents.
5.) Contents are practical and based on knowledge, skills and attitudes.
6.) Encourages flexibility in content delivery.
7.) Faculty act as guides.
8.) Assessments include tests, simulations, portfolios, self-assessments, projects and collaborative learning.
9.) Unit/ Course wise assessment and evaluation parameters.
10.) Continuous endeavour to improve quality (Rao, 2015, p. 9)

## Advantages of OBE

The following advantages accrue to education, training and industry:
1.) Every unit defines expectations from students.
2.) Role players and stakeholders support.
3.) International best practices are followed.
4.) Clarity in assessment criteria is ensured for the faculty and the students.
5.) Assessment of abilities, knowledge, skills and attitudes makes the graduates industry ready.
6.) Predetermined assessment criteria ensures objective and fair evaluation.

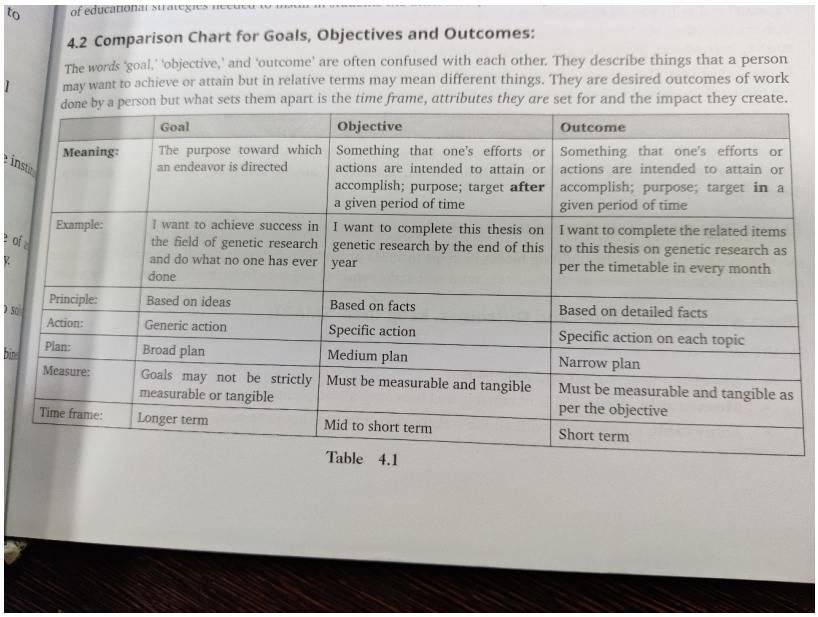
7.) Balances components among knowledge, skills and attitudes.
8.) Specific skills and competencies are promoted.
9.) Higher education and workplace is integrated.
10.) Instils responsibility among students.
11.) Ensures diversity in outcomes and objectives.
12.) Focus is on objectives and outcomes of the programme.
13.) Continuous improvement in curriculum is encouraged (Rao, 2015).

**Disadvantages of OBE**

The drawbacks of the OBE prevent it from being widely implemented. Drawbacks at initial stage overcome by cooperation from the stakeholders ensures the benefit from the system (Rao, 2015)

**Basic Definitions**

Once defined the vision, mission and core values, facilitate framing of the goals, objectives and outcomes to achieve the vision and mission. The vision is what the Institution wants to achieve over a long period. The mission states how the Institutions will achieve the vision. Core values define the behaviour of Institutions, principles and values that the leadership will follow and the boundaries within which the Institution will conduct activities while implementing the vision and mission (Rao, 2015, pp 13-15)



4.2 Comparison Chart for Goals, Objectives and Outcomes:

The words 'goal,' 'objective,' and 'outcome' are often confused with each other. They describe things that a person may want to achieve or attain but in relative terms may mean different things. They are desired outcomes of work done by a person but what sets them apart is the *time frame*, *attributes they are* set for and the impact they create.

| | Goal | Objective | Outcome |
|---|---|---|---|
| **Meaning:** | The purpose toward which an endeavor is directed | Something that one's efforts or actions are intended to attain or accomplish; purpose; target **after** a given period of time | Something that one's efforts or actions are intended to attain or accomplish; purpose; target **in** a given period of time |
| Example: | I want to achieve success in the field of genetic research and do what no one has ever done | I want to complete this thesis on genetic research by the end of this year | I want to complete the related items to this thesis on genetic research as per the timetable in every month |
| Principle: | Based on ideas | Based on facts | Based on detailed facts |
| Action: | Generic action | Specific action | Specific action on each topic |
| Plan: | Broad plan | Medium plan | Narrow plan |
| Measure: | Goals may not be strictly measurable or tangible | Must be measurable and tangible | Must be measurable and tangible as per the objective |
| Time frame: | Longer term | Mid to short term | Short term |

Table 4.1

Figure 3: Comparison chart for Goals, Objectives and Outcomes (Rao, 2015, p. 15)
Goals, objectives and outcomes are different in terms of period, attributes set for and the impact they create (Rao, 2015, p. 15).

Programme Educational Objectives, aligned with the mission, describe expectations from students within 3 to 5 years after graduation. Narrower Programme Outcomes outline the knowledge, skills, attitudes, values and behaviours that the students are expected to display upon graduation. Course outcomes even narrower; describe what students are able to do upon completion of the course. Student centric, aligned to the

mission, these use verbs like demonstrate, describe, apply, analyse, design, do, develop, learn etc. (Rao, 2015, p. 16-17)

**SMART Objectives and Outcomes**

Objectives and outcomes build the goals. These state who will make, what changes, by how much, where and by when. The acronym SMART means Specific, Measurable, Achievable, Realistic and Timely (Rao, 2015 pp.16-17)

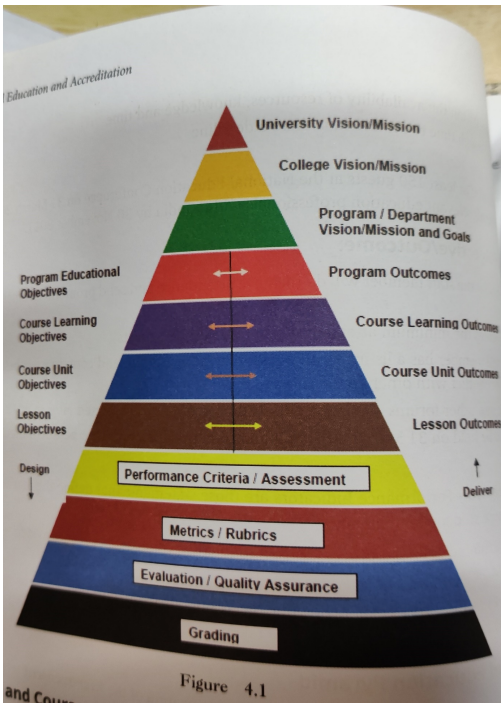



Figure 4: Outcome Based Education Pyramid (Rao, 2015, p. 18)

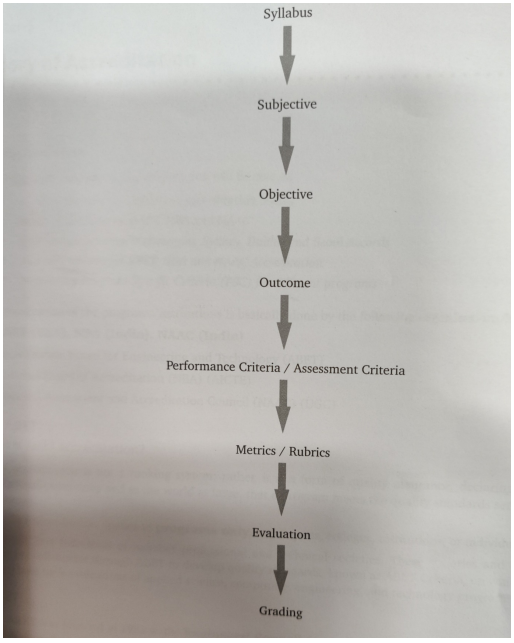



Figure 5: The hierarchical relationship from Syllabus to Graduating in OBE (Rao, 2015 p 19).

## Result Analysis

Measured on a Relative Scale, out of the 111 students 2.7% scored 60% and above in the Quizzes, 66.7% scored 60% and above in the discussions and 49% scored 60% and above on the summary and creative story writing. The results through the marks distribution chart below clearly show the progress. Discussions reveal an improvement over quizzes with an increase in percentage of students scoring O, A+. A, B and substantial decrease in failures. Assignments showed an increased scoring in grades A, B+, B, C+, C and a further decrease in F, although there is a drop in O and A+. Relative Scale revealed the percentage of students against grades as follows: 6.3% (A+), 25.2% (A), 18.9% (B+), 15.3% (B), 9.9% (C+) and 0.9% (C). 23.4% failures appeared for remedial.

| | Marks Distribution Chart | | | |
|---|---|---|---|---|
| | Percentage of Students scoring 20%, 30% and 50% marks | | | |
| Grades | 5 Quizzes 20% | 3 Discussions 30% | 2 Assignments 50% | Total 100% |
| 0 | 0 | 1.8 | 0.9 | 0.0 |
| A+ | 0 | 23.4 | 9.0 | 6.3 |
| A | 0 | 21.6 | 29.7 | 25.2 |
| B+ | 9.9 | 7.2 | 14.4 | 18.9 |
| B | 10.8 | 13.5 | 17.1 | 15.3 |
| C+ | 11.7 | 5.4 | 8.1 | 9.9 |
| C | 21.6 | 3.6 | 20.7 | 0.9 |
| F | 45.9 | 23.4 | 20.7 | 23.4 |

Table 1: Marks distribution chart

## Overcoming Gaps

To improve listening and speaking skills, suggestion is to assign group projects based on pieces of literature dealing with some social or cultural aspect. Groups must include students with a mix of strengths required example writing, research and technical skills. Besides learning collaboration and group dynamics, the members of a group will learn from each other's strengths and about other societies and culture. Students can then present their projects for peer assessed formative feedback. Rubrics shared with students beforehand, will ensure setting of expectations. Rubrics for formative and summative assessments must be the same. Listening skills of peers giving formative feedback will enhance. Oral presentations of individual members will enhance their speaking skills. Suggested is that though the project is group the marking be individual.

## Conclusion

English literature theories taught within the framework of Outcome Based Education enhanced communication skills and collaboration. Literary texts have the potential to enhance listening and speaking skills. Results of the above study display that the reading and writing skills of students enhanced. 60% students on the Course Objective Attainment Sheet achieved the target of minimum 50% marks. Thus, to

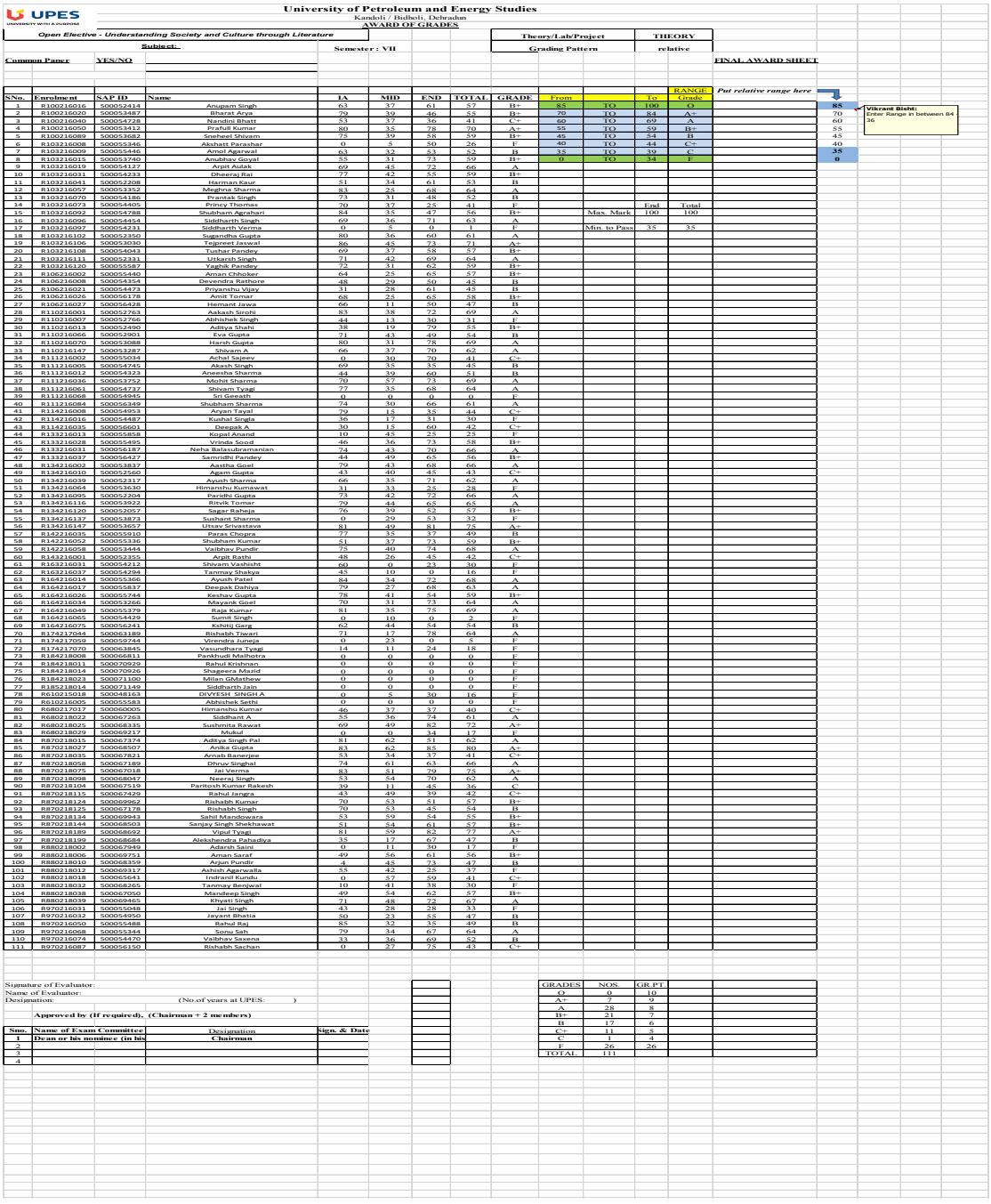
make the course more challenging the minimum target will be raised for subsequent batches.

**Acknowledgement**

This study was conducted in the University of Petroleum and Energy Studies, Dehradun, Uttrakhand, India.

# Appendices

## Appendix 1



University of Petroleum and Energy Studies
Kandoli / Bidholi, Dehradun
AWARD OF GRADES

Open Elective - Understanding Society and Culture through Literature | Theory/Lab/Project | THEORY
Subject: | Semester : VII | Grading Pattern | relative
Common Paper | YES/NO | FINAL AWARD SHEET

| SNo. | Enrolment | SAP ID | Name | IA | MID | END | TOTAL | GRADE |
|---|---|---|---|---|---|---|---|---|
| 1 | R100216016 | 500052414 | Anupam Singh | 63 | 37 | 61 | 57 | B+ |
| 2 | R100216020 | 500053487 | Bharat Arya | 79 | 39 | 46 | 55 | B+ |
| 3 | R100216040 | 500054728 | Nandini Bhatt | 53 | 37 | 36 | 41 | C+ |
| 4 | R100216050 | 500053412 | Prafull Kumar | 80 | 35 | 78 | 70 | A+ |
| 5 | R100216089 | 500053682 | Snehael Shivam | 75 | 39 | 58 | 59 | B+ |
| 6 | R103216008 | 500055346 | Akshatt Parashar | 0 | 5 | 50 | 26 | F |
| 7 | R103216009 | 500055446 | Amol Agarwal | 63 | 32 | 53 | 52 | B |
| 8 | R103216015 | 500053740 | Anubhav Goyal | 55 | 31 | 73 | 59 | B+ |
| 9 | R103216019 | 500054127 | Arpit Aulak | 69 | 45 | 72 | 66 | A |
| 10 | R103216031 | 500054233 | Dheeraj Rai | 77 | 42 | 55 | 59 | B+ |
| 11 | R103216041 | 500052208 | Harman Kaur | 51 | 34 | 61 | 53 | B |
| 12 | R103216057 | 500053352 | Meghna Sharma | 83 | 25 | 68 | 64 | A |
| 13 | R103216070 | 500054186 | Prantak Singh | 73 | 31 | 48 | 52 | B |
| 14 | R103216073 | 500054405 | Princy Thomas | 70 | 37 | 25 | 41 | F |
| 15 | R103216092 | 500054788 | Shubham Agrahari | 84 | 35 | 47 | 56 | B+ |
| 16 | R103216096 | 500054454 | Siddharth Singh | 69 | 36 | 71 | 63 | A |
| 17 | R103216097 | 500054231 | Siddharth Verma | 0 | 5 | 0 | 1 | F |
| 18 | R103216102 | 500052350 | Sugandha Gupta | 80 | 36 | 60 | 61 | A |
| 19 | R103216106 | 500053030 | Tejpreet Jaswal | 86 | 45 | 73 | 71 | A+ |
| 20 | R103216108 | 500054043 | Tushar Pandey | 69 | 37 | 58 | 57 | B+ |
| 21 | R103216111 | 500052331 | Utkarsh Singh | 71 | 42 | 69 | 64 | A |
| 22 | R103216120 | 500055587 | Yaghik Pandey | 72 | 31 | 62 | 59 | B+ |
| 23 | R106216002 | 500055460 | Aman Chhokar | 64 | 25 | 65 | 57 | B+ |
| 24 | R106216008 | 500054354 | Devendra Rathore | 48 | 29 | 50 | 45 | B |
| 25 | R106216021 | 500054473 | Priyanshu Vijay | 31 | 28 | 61 | 45 | B |
| 26 | R106216026 | 500056178 | Amit Tomar | 68 | 25 | 65 | 58 | B+ |
| 27 | R106216027 | 500056428 | Hemant Jawa | 66 | 11 | 50 | 47 | B |
| 28 | R110216001 | 500052763 | Aakash Sirohi | 83 | 38 | 72 | 69 | A |
| 29 | R110216007 | 500052768 | Abhishek Singh | 44 | 13 | 30 | 31 | F |
| 30 | R110216013 | 500052490 | Aditya Shahi | 38 | 19 | 79 | 55 | B+ |
| 31 | R110216066 | 500052901 | Eva Gupta | 71 | 43 | 49 | 54 | B |
| 32 | R110216070 | 500053088 | Harsh Gupta | 80 | 31 | 78 | 69 | A |
| 33 | R110216147 | 500053287 | Shivam A | 66 | 37 | 70 | 62 | A |
| 34 | R111216002 | 500055034 | Achal Sajeev | 0 | 30 | 70 | 41 | C+ |
| 35 | R111216005 | 500054745 | Akash Singh | 69 | 35 | 35 | 45 | B |
| 36 | R111216012 | 500054323 | Aneesha Sharma | 44 | 39 | 60 | 51 | B |
| 37 | R111216036 | 500053752 | Mohit Sharma | 70 | 57 | 73 | 69 | A |
| 38 | R111216061 | 500054737 | Shivam Tyagi | 77 | 35 | 68 | 64 | A |
| 39 | R111216068 | 500054945 | Sri Geeath | 0 | 0 | 0 | 0 | F |
| 40 | R111216084 | 500056349 | Shubham Sharma | 74 | 30 | 66 | 61 | A |
| 41 | R114216008 | 500054953 | Aryan Tayal | 79 | 15 | 35 | 44 | C+ |
| 42 | R114216016 | 500054487 | Kushal Singla | 36 | 17 | 31 | 30 | F |
| 43 | R114216035 | 500056601 | Deepak A | 30 | 15 | 60 | 42 | C+ |
| 44 | R133216013 | 500055858 | Kopal Anand | 10 | 45 | 25 | 25 | F |
| 45 | R133216028 | 500055495 | Vrinda Sood | 46 | 36 | 73 | 58 | B+ |
| 46 | R133216031 | 500056187 | Neha Balasubramanian | 74 | 43 | 70 | 66 | A |
| 47 | R133216037 | 500056427 | Samridhi Pandey | 44 | 49 | 65 | 56 | B+ |
| 48 | R134216002 | 500053837 | Aastha Goel | 79 | 43 | 68 | 66 | A |
| 49 | R134216010 | 500052560 | Agam Gupta | 43 | 40 | 45 | 43 | C+ |
| 50 | R134216039 | 500052317 | Ayush Sharma | 66 | 35 | 71 | 62 | A |
| 51 | R134216064 | 500053630 | Himanshu Kumawat | 31 | 33 | 25 | 28 | F |
| 52 | R134216095 | 500052204 | Paridhi Gupta | 73 | 42 | 72 | 66 | A |
| 53 | R134216116 | 500053922 | Ritvik Tomar | 79 | 44 | 65 | 65 | A |
| 54 | R134216120 | 500052057 | Sagar Raheja | 76 | 39 | 52 | 57 | B+ |
| 55 | R134216137 | 500053873 | Sushant Sharma | 0 | 29 | 53 | 32 | F |
| 56 | R134216147 | 500053657 | Utsav Srivastava | 81 | 49 | 81 | 75 | A+ |
| 57 | R142216035 | 500055910 | Paras Chopra | 77 | 35 | 37 | 49 | B |
| 58 | R142216052 | 500055336 | Shubham Kumar | 51 | 37 | 73 | 59 | B+ |
| 59 | R142216058 | 500053444 | Vaibhav Pundir | 75 | 40 | 74 | 68 | A |
| 60 | R143216001 | 500052355 | Arpit Rathi | 48 | 26 | 45 | 42 | C+ |
| 61 | R163216031 | 500054212 | Shivam Vashisht | 60 | 0 | 23 | 30 | F |
| 62 | R163216037 | 500054294 | Tanmay Shakya | 45 | 10 | 0 | 16 | F |
| 63 | R164216014 | 500055366 | Ayush Patel | 84 | 34 | 72 | 68 | A |
| 64 | R164216017 | 500055837 | Deepak Dahiya | 79 | 27 | 68 | 63 | A |
| 65 | R164216026 | 500055744 | Keshav Gupta | 78 | 41 | 54 | 59 | B+ |
| 66 | R164216034 | 500053266 | Mayank Goel | 70 | 31 | 73 | 64 | A |
| 67 | R164216049 | 500055179 | Raja Kumar | 81 | 35 | 75 | 69 | A |
| 68 | R164216065 | 500054429 | Sumit Singh | 0 | 10 | 0 | 2 | F |
| 69 | R164216075 | 500056241 | Kshitij Garg | 62 | 44 | 54 | 54 | B |
| 70 | R174217044 | 500063189 | Rishabh Tiwari | 71 | 17 | 78 | 64 | A |
| 71 | R174217059 | 500059744 | Virendra Juneja | 0 | 23 | 0 | 5 | F |
| 72 | R174217070 | 500063845 | Vasundhara Tyagi | 14 | 11 | 24 | 18 | F |
| 73 | R184218008 | 500066811 | Pankhudi Malhotra | 0 | 0 | 0 | 0 | F |
| 74 | R184218011 | 500070929 | Rahul Krishnan | 0 | 0 | 0 | 0 | F |
| 75 | R184218014 | 500070926 | Shagreera Maizid | 0 | 0 | 0 | 0 | F |
| 76 | R184218023 | 500071100 | Mitan GMathew | 0 | 0 | 0 | 0 | F |
| 77 | R185218014 | 500071149 | Siddharth Jain | 0 | 0 | 0 | 0 | F |
| 78 | R610215018 | 500048163 | DIVYESH SINGH A | 0 | 5 | 30 | 16 | F |
| 79 | R610216005 | 500055583 | Abhishek Sethi | 0 | 0 | 0 | 0 | F |
| 80 | R680217017 | 500060005 | Himanshu Kumar | 46 | 37 | 37 | 40 | C+ |
| 81 | R680218022 | 500067263 | Siddhant A | 55 | 36 | 74 | 61 | A |
| 82 | R680218025 | 500068335 | Sushmita Rawat | 69 | 49 | 82 | 72 | A+ |
| 83 | R680218029 | 500069217 | Mukul | 0 | 0 | 34 | 17 | F |
| 84 | R870218015 | 500067374 | Aditya Singh Pal | 81 | 62 | 51 | 62 | A |
| 85 | R870218027 | 500068507 | Anika Gupta | 83 | 62 | 85 | 80 | A- |
| 86 | R870218035 | 500067821 | Arnab Banerjee | 53 | 34 | 37 | 41 | C+ |
| 87 | R870218058 | 500067189 | Dhruv Singhal | 74 | 61 | 63 | 66 | A |
| 88 | R870218075 | 500067018 | Jai Verma | 83 | 51 | 79 | 75 | A+ |
| 89 | R870218098 | 500068047 | Neeraj Singh | 53 | 54 | 70 | 62 | A |
| 90 | R870218104 | 500067519 | Paritosh Kumar Rakesh | 39 | 11 | 45 | 36 | C |
| 91 | R870218115 | 500067429 | Rahul Jangra | 43 | 49 | 39 | 42 | C+ |
| 92 | R870218124 | 500069962 | Rishabh Kumar | 70 | 53 | 51 | 57 | B+ |
| 93 | R870218125 | 500067178 | Rishabh Singh | 70 | 53 | 45 | 54 | B |
| 94 | R870218134 | 500069943 | Sahil Mandowara | 53 | 59 | 54 | 55 | B+ |
| 95 | R870218144 | 500068503 | Sanjay Singh Shekhawat | 51 | 54 | 61 | 57 | B+ |
| 96 | R870218189 | 500068692 | Vipul Tyagi | 81 | 59 | 82 | 77 | A+ |
| 97 | R870218199 | 500068684 | Alekshendra Pahadiya | 35 | 17 | 67 | 47 | B |
| 98 | R880218002 | 500067949 | Adarsh Saini | 0 | 11 | 30 | 17 | F |
| 99 | R880218006 | 500069751 | Aman Saraf | 49 | 56 | 61 | 56 | B+ |
| 100 | R880218010 | 500068359 | Arjun Pundir | 4 | 45 | 73 | 47 | B |
| 101 | R880218012 | 500069317 | Ashish Agarwalla | 55 | 42 | 25 | 37 | F |
| 102 | R880218018 | 500065641 | Indranil Kundu | 0 | 57 | 59 | 41 | C+ |
| 103 | R880218032 | 500068265 | Tanmay Benjwal | 10 | 41 | 38 | 30 | F |
| 104 | R880218038 | 500067050 | Mandeep Singh | 49 | 54 | 62 | 57 | B+ |
| 105 | R880218039 | 500069465 | Khyati Singh | 71 | 48 | 72 | 67 | A |
| 106 | R970216031 | 500055048 | Jai Singh | 43 | 28 | 28 | 33 | F |
| 107 | R970216032 | 500054950 | Jayant Bhatia | 50 | 23 | 55 | 47 | B |
| 108 | R970216050 | 500055488 | Rahul Raj | 85 | 32 | 35 | 49 | B |
| 109 | R970216068 | 500055344 | Sonu Sah | 79 | 34 | 67 | 64 | A |
| 110 | R970216074 | 500054470 | Vaibhav Saxena | 33 | 36 | 69 | 52 | B |
| 111 | R970216087 | 500056150 | Rishabh Sachan | 0 | 27 | 75 | 43 | C+ |

RANGE | Put relative range here
From | | To | Grade
85 | TO | 100 | O
70 | TO | 84 | A+
60 | TO | 69 | A
55 | TO | 59 | B+
45 | TO | 54 | B
40 | TO | 44 | C+
35 | TO | 39 | C
0 | TO | 34 | F

Max. Mark | 100 | 100
Min. to Pass | 35 | 35
End | Total

Vikrant Bisht: Enter Range in between 84 36

| GRADES | NOS. | GR PT |
|---|---|---|
| O | 0 | 10 |
| A+ | 7 | 9 |
| A | 28 | 8 |
| B+ | 21 | 7 |
| B | 17 | 6 |
| C+ | 11 | 5 |
| C | 1 | 4 |
| F | 26 | 26 |
| TOTAL | 111 | |

Signature of Evaluator:
Name of Evaluator:
Designation: (No.of years at UPES: )

Approved by (If required), (Chairman + 2 members)

| Sno. | Name of Exam Committee | Designation | Sign. & Date |
|---|---|---|---|
| 1 | Dean or his nominee (in his | Chairman | |
| 2 | | | |
| 3 | | | |
| 4 | | | |

Table 2: Final Award Sheets

1. Quizzes formed the Mid Semester (MID) component: 20%
2. Discussions constituted the Internal Assessment (IA) Component: 30%
3. Assignments were the End Semester2 (END): 50%

# Appendix 2

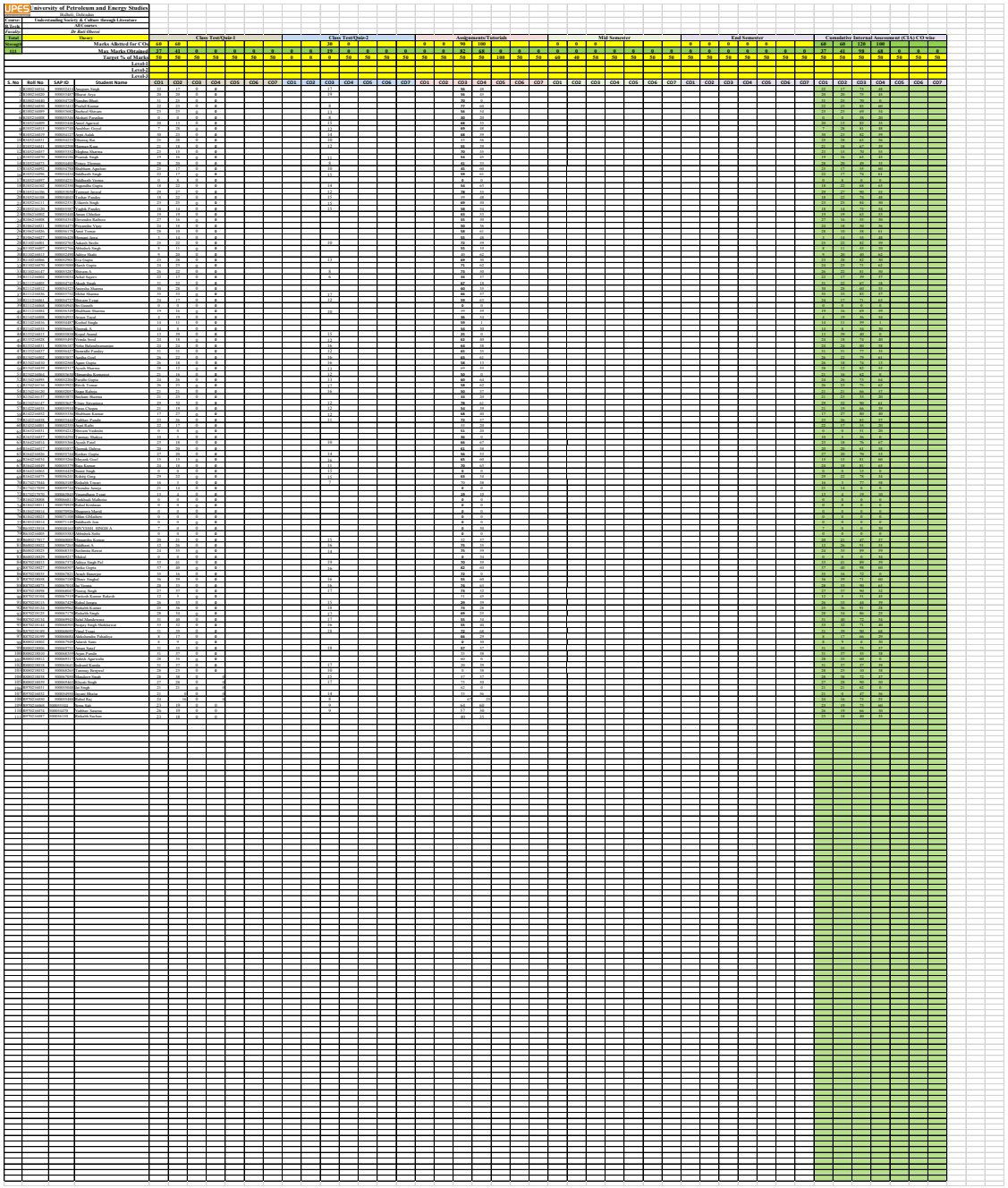
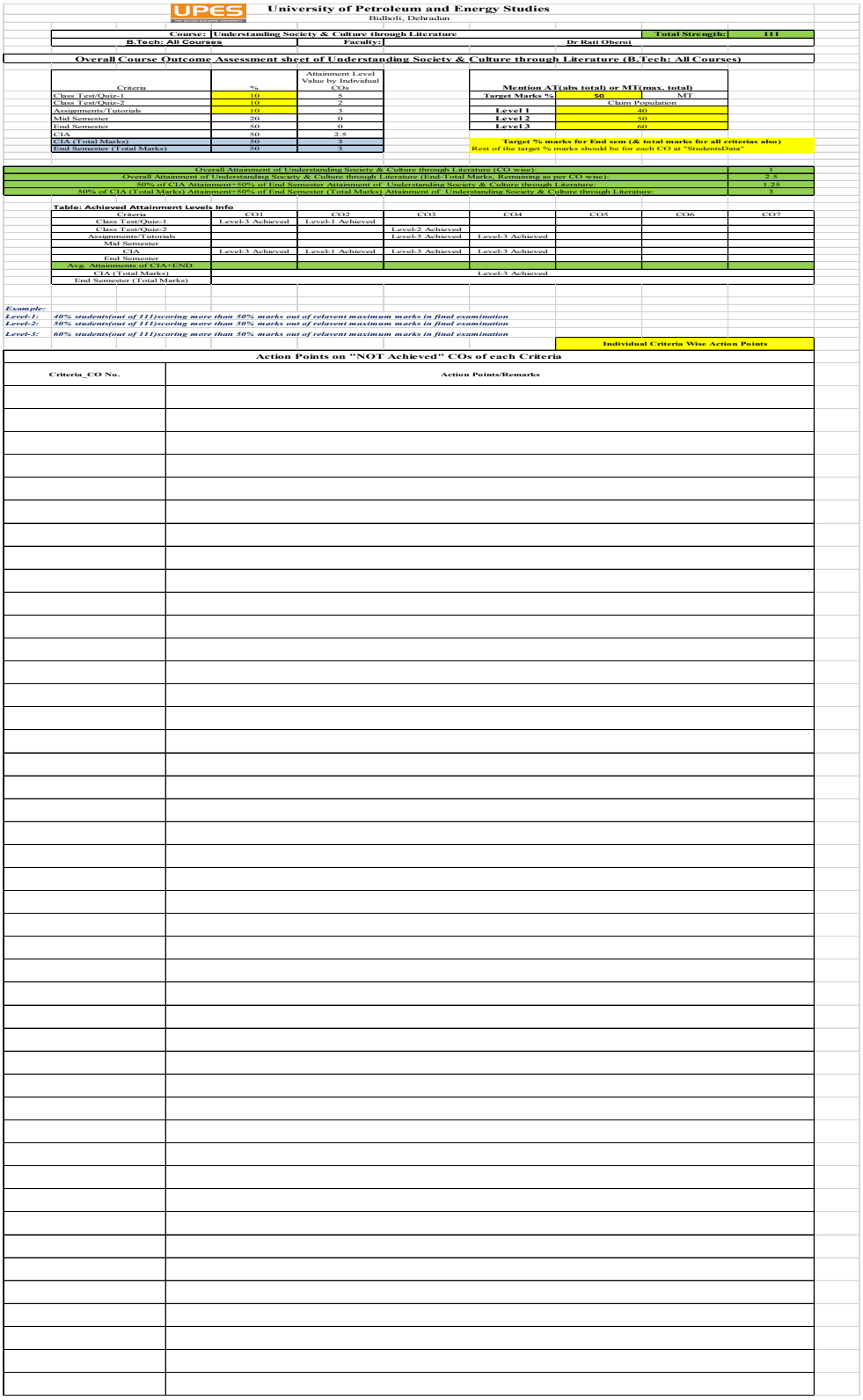


Table 3: Students Data

Continuous Evaluation pattern was employed to teach the course, therefore, the Mid Semester and End Semester columns are not filled.

## Appendix 3



University of Petroleum and Energy Studies
Bidholi, Dehradun

| Course: | Understanding Society & Culture through Literature | Total Strength: | 111 |
|---|---|---|---|
| B.Tech: All Courses | Faculty: | Dr Rati Oberoi | |

**Overall Course Outcome Assessment sheet of Understanding Society & Culture through Literature (B.Tech: All Courses)**

| Criteria | % | Attainment Level Value by Individual COs |
|---|---|---|
| Class Test/Quiz-1 | 10 | 5 |
| Class Test/Quiz-2 | 10 | 2 |
| Assignments/Tutorials | 10 | 3 |
| Mid Semester | 20 | 0 |
| End Semester | 50 | 0 |
| CIA | 50 | 2.5 |
| CIA (Total Marks) | 50 | 3 |
| End Semester (Total Marks) | 50 | 3 |

| Mention AT(abs total) or MT(max. total) | | |
|---|---|---|
| Target Marks % | 50 | MT |
| | Claim Population | |
| Level 1 | 40 | |
| Level 2 | 50 | |
| Level 3 | 60 | |

Target % marks for End sem (& total marks for all criterias also)
Rest of the target % marks should be for each CO at "StudentsData"

| | |
|---|---|
| Overall Attainment of Understanding Society & Culture through Literature (CO wise): | 1 |
| Overall Attainment of Understanding Society & Culture through Literature (End-Total Marks, Remaining as per CO wise): | 2.5 |
| 50% of CIA Attainment+50% of End Semester Attainment of Understanding Society & Culture through Literature: | 1.25 |
| 50% of CIA (Total Marks) Attainment+50% of End Semester (Total Marks) Attainment of Understanding Society & Culture through Literature: | 3 |

**Table: Achieved Attainment Levels info**

| Criteria | CO1 | CO2 | CO3 | CO4 | CO5 | CO6 | CO7 |
|---|---|---|---|---|---|---|---|
| Class Test/Quiz-1 | Level-3 Achieved | Level-1 Achieved | | | | | |
| Class Test/Quiz-2 | | | Level-2 Achieved | | | | |
| Assignments/Tutorials | | | Level-3 Achieved | Level-3 Achieved | | | |
| Mid Semester | | | | | | | |
| CIA | Level-3 Achieved | Level-1 Achieved | Level-3 Achieved | Level-3 Achieved | | | |
| End Semester | | | | | | | |
| Avg. Attainments of CIA+END | | | | | | | |
| CIA (Total Marks) | | | | Level-3 Achieved | | | |
| End Semester (Total Marks) | | | | | | | |

*Example:*
*Level-1: 40% students(out of 111)scoring more than 50% marks out of relavent maximum marks in final examination*
*Level-2: 50% students(out of 111)scoring more than 50% marks out of relavent maximum marks in final examination*
*Level-3: 60% students(out of 111)scoring more than 50% marks out of relavent maximum marks in final examination*

**Individual Criteria Wise Action Points**

**Action Points on "NOT Achieved" COs of each Criteria**

| Criteria_CO No. | Action Points/Remarks |
|---|---|

Table 4: Overall Course Attainment Sheet

Please note that the Attainment Sheets were designed for Internal Assessments, Mid Semester and End Semester Examinations and therefore do not cater to the Continuous Evaluation pattern which was employed to teach the course

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# *Developing Self-efficacy of Pre-service Science Teachers Through Teacher Professional Development Program*

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Thitiya Bongkotphet, Naresuan University, Thailand
Sirinuch Chindaruksa, Naresuan University, Thailand

The Osaka Conference on Education 2020
Official Conference Proceedings

**Abstract**
This research aimed to develop a self-efficacy of pre-service science teachers. The participants were 18 science pre-service teachers who were in the first year of general science program. The teacher professional development program in this study employed 3 strategies to develop pre-service teacher's self-efficacy including curriculum topic study, content course, and immersion in science inquiry. The research instruments comprised of a questionnaire (SOSESC-P) and a semi-structured interview. Before and after participating in the program, all participants completed a questionnaire and 6 participants were interviewed. Data were analyzed through mean, standard deviation, and content analysis, which was divided into four aspects including performance accomplishment (PA), vicarious learning (VL), social persuasion (SP), and emotional arousal (EA). The result indicated statistically significant gains in participants' self-efficacy in every aspect at 0.05 level. Data from the interviews showed that the main influences in developing self-efficacy included hands on activities, good interaction between teachers and students, supports from classmates, and questioning.

Keyword: Self-Efficacy, Pre-Service Science Teachers, Teacher Professional Development Program

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## Introduction

Self-efficacy is a factor influencing a person's actions. Self-efficacy affects decision-making. People who know they are very capable will try to show that behavior. For teacher, based on relevant research studies, self-efficacy reflects confidence in the knowledge and ability of teachers to perform their duties. This makes them feel that they can perform their duties effectively. It is also a motivation for teachers to practice or change the behavior about their expressions. Self-efficacy influences teachers' decision-making in their future teaching (Bandura, 1997; Hoy & Spero, 2005; Wang & Liu, 2008). Rice and Roychoudhury (2003) studied self-efficacy of pre-service teachers and discovered that the preparation of the pre-service teacher in terms of the concept of science had some impacts on self-efficacy beliefs, while Appleton and Kindt (2002) studied the perception of competency of the pre-service teacher also found that the pre-service teacher had low confidence and always taught science through lecture, which showed low self-efficacy. According to Kazempour & Sadler (2015), the beliefs of the pre-service teacher in the power of self-efficacy directly influenced their teaching ability in the future.

In terms of the guidelines for the development of self-efficacy for the pre-service teachers according to the research study, it was found that there were factors related to development, namely practice courses and content subjects. The differences between practical courses and content courses are the purposes of the course. The practical courses focus on teaching and the skills required to teach science, teaching strategies, assessments of student learning, classroom management. Meanwhile the content courses have the goals of teaching science concepts, the content development of the course which contains research that discusses the practices. The content course must also have a demonstration activities (Hands-on) and discussions to expand awareness which both practices are key factors in the development of one's competence (Bleicher & Lindgren, 2005; Schoon & Boone, 1998). The self-competency development program in content course are content courses. There are 3 types of teaching such as collaboration, clear teaching practice, and participatory learning (Lucia Zundans-Fraser and Julie Lancaster, 2012) which will find that designing a program to develop one's competence should be used in a way that focuses on students, teachers, actions and collaboration as well as having discussions together. Purpose of the Study were to develop a self-efficacy of pre-service science teachers.

## Methodology

This research employed a qualitative research methodology for studying self-effcicacy of science pre-service teachers It took place over a period of 10 weeks in the second semester of academic year 2019. According to Loucks-Horsley, S., Hewson, P. W., Love, N., & Stiles, K. E. (1998)., the teacher professional development program in this study consisted of three strategies for developing self-efficacy: curriculum topic study, content course, and Immersion in science inquiry.

## Participants

The participants of this study were 18 science pre-service teachers who were first year students in general science program at Rajabhat University. These students enrolled in physics for teacher subject. Six participants were purposively selected for interview based on data from a self-efficacy questionnaire. In this research, the researcher has assigned the teacher student code as A, B, C, D, E and F.

## Instruments

The research instruments for studying self-efficacy of science pre-service teachers were a self-efficacy questionnaire and a semi-structured interview. The details of each research instruments were described as follows**.**

1. Self-efficacy questionnaire

This questionnaire was adapted from the sources of self-efficacy in science Course-Physics (SOSESC-P) questionnaire which was developed by Heidi Fencl and Karen Scheel (2004). This questionnaire consisted of of 33 questions with a five-point Likert scale ranging from “strongly agree” to “strongly disagree.” There were 33 questions with 5 level questions that were positive and negative questions. The self-efficacy in this questionnaire was measured in 4 aspects as following:

1. Performance Accomplishment (PA) is the success that increases one's abilities; it requires the need to train people so that they acquire some skills that will be sufficient to be successful simultaneously. This makes a person perceive that he has the ability to act in such ways such as asking for a request, rejecting, complimenting, showing some gestures. This will allow students to use the skills they acquire most effectively.

2. Vicarious Learning (VL) means observing from other people's experiences then acting in similar behavior which will make an individual notice the perception of his/her own abilities.

3. Social Persuasion (SP) is the use of speech to explain knowledge, advice, and encourage the learners to believe in order to achieve internal motivation.

4. Emotional Arousal (EA) is the normalization of physical and emotional states that are not fluctuating so that students recognize the power and competencies of themselves.

This questionnaire collects information before and after participating in teacher professional development program between 3 Dec 2019 -18 Feb 2020. The data were analyzed by using basic statistics including mean, standard deviation.

2. Semi-Structured Interviews

The semi-structured interview was developed based on a model by Heidi Fencl and Karen Scheel (200), which consisted of four main points: 1) Personal Accomplishments (PA), 2) Vicarious Learning (VL), 3). Social Persuasion (SP), and

4) Emotional Arousal (EA). The researchers interviewed 6 participants by focus group method. There were 4 main questions as follows:

Question 1: How will students be able to achieve their personal goals for studying physics? (Personal Accomplishments (PA))
Question 2: "When you see that your friend is studying or working in physics for teachers. You think you can do it too." What do you think of the above sentence? (Vicarious Learning (VL))
Question 3: How do the professor(s) influence the learning of physics for the student teacher? (Social Persuasion (SP))
Question 4: What factors affect students' perceptions of studies in physics?(Emotional Arousal (EA))

This interview collects information after participating in teacher professional development program. The data from the interview was analyzed using content analysis.

**Results**

The results of this study can be shown as follows.

**The results of self-efficacy from questionnaire before and after participating in teacher professional development program.**

The researchers analyzed the data from self-efficacy questionnaire. The researchers performed an analysis with a positive inverted score and analyzed them together. The results are as shown in Figure 1 as follows:

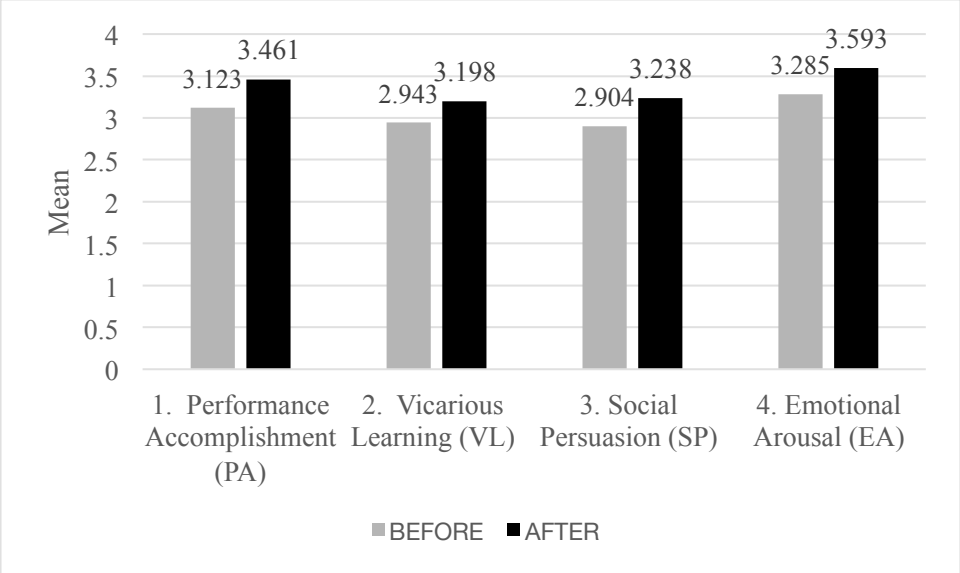


Figure 1: This is an image shows the results of the analysis of self-efficacy

From Figure 1, the results of the analysis of the level of opinions in 4 aspects from the overall, the level of opinions before applying before and after participating in teacher professional development program for pre-service teachers in terms self-efficacy was at the mean of 3.10 and after participating teacher professional development program

for pre-service teachers in terms of self-efficacy, the mean value was at 3.37. When considered individually, developing one's own ideas and competencies, the aspect with the most evaluated results was the 4th aspect which had a mean of 3.28, followed by the 1st aspect with a mean of 3.12, and the 3rd with a mean of 2.97, and the 2nd aspect with a mean of 2.94. Also, when considered after using the in teacher professional development program guideline for self-efficacy teachers to develop their own self-efficacy, the aspect with the most evaluated results was the 4th aspect with a mean of 3.59, followed by the 1st aspect with a mean of 3.46, the 2nd aspect with a mean of 3.20, and the 3rd aspects with a mean of 3.13.

The researcher compared of self-efficacy before and after participating in teacher professional development program by using t-test comparison, the results are as shown in Table 1.

**Table 1. Shows the comparison of self-efficacy before and after learning management**

| Type | Before/After | N | $\overline{X}$ | S.D. | t | Sig |
|---|---|---|---|---|---|---|
| 1.Performance Accomplishment (PA) | Before | 10 | 3.123 | 0.542 | -3.368* | .008 |
| | After | 10 | 3.461 | 0.721 | | |
| 2. Vicarious Learning (VL) | Before | 7 | 2.943 | 0.606 | -2.854* | .029 |
| | After | 7 | 3.198 | 0.527 | | |
| 3. Social Persuasion (SP) | Before | 7 | 2.904 | 0.831 | -4.745* | .003 |
| | After | 7 | 3.238 | 0.828 | | |
| 4. Emotional Arousal (EA) | Before | 9 | 3.285 | 0.378 | -2.944* | .019 |
| | After | 9 | 3.593 | 0.451 | | |
| **Average Mean** | Before | 33 | 3.096 | 0.569 | -5.164* | 0.000 |
| | After | 33 | 3.370 | 0.669 | | |

Significant at .05 level

From Table 1, the result indicated statistically significant gains in participants' self-efficacy in every aspect at 0.05 level.

**The results of self-efficacy from semi-structured interview after participating in teacher professional development program.**

The results from each interview question with 6 participants about their self-efficacy are shown as follows:
1. How will students be able to achieve their personal goals for studying physics (Personal Accomplishments (PA))?

The researchers found that most of the pre-service teacher thought physics was a difficult subject and required computational skills. Therefore, the thing that would make it successful in studying physics would be to have to practice doing a lot of problems and practice a lot of exercises. The students' answers could be displayed in 4 groups as follows:
Group 1: Student A, B, D and E commented that physics was a difficult subject and requires computational skills. Therefore, the thing that would make it successful in studying physics would be to have to practice doing a lot of problems and practice a lot of exercises. Example answers can be shown as follows:

> “Physics is a difficult subject and requires mathematical calculation. Learners have to practice doing exercises.”(Participant A)

Group 2: Student C, E and F commented that in their opinions, physics was difficult. Also, according to past high school experiences, they were unable to understand the content. Therefore, students would try to study from the Internet media for their studies. Example answers can be shown as follows:

> “If you don't understand from the classroom, students try to get media on the internet to help them learn. ”( Participant F)

Group 3 Student F commented that when they did not understand the content. However, since physics for teachers is a major that must be studied. They would try to study and focus more because they believed that if putting some effort everything would go well. Example answers can be shown as follows:

> "Try to make it successful in studying. If you don't understand from the classroom, students try to get media on the internet to help them learn. ”( Participant F)

Group 4: Student B and E commented that in their studies, they did not study alone and they had friends to study with. Also, the professor(s) could give advice. So, they hoped that they would succeed in studying physics as they believed that if they tried hard, things would go well. Example answers can be shown as follows:

> “Physics is difficult for students, but I know I can ask my friends. If a friend cannot explain to understand, he will ask the teacher" (Participant B)

2. “When you see that your friend is studying or working in physics for teachers. You think you can do it too.” What do you think of the above sentence (Vicarious Learning (VL))?

The researchers found that the students agreed with the sentence because the key factor in the students' learning was friends. Especially when working, student groups observe their peers who are good and able to do their jobs. This makes students want to be like friends. The students’ answers could be displayed in 2 groups as follows:

Group 1: Student B, C, D, E, and F commented that they agreed with the sentence because the key factor in the students' learning was friends. Especially when working, student groups observed their peers who were good and able to do their jobs. It made them want to be like their friends. Example answers can be shown as follows:

> “I agree because my friend helped me complete the task in the group. Sometimes seeing a friend can do work I want to be like them. ”( Participant B)

Group 2: Student A commented that he/she did not agree with the sentence because sometimes he/she could work on his/her own without paying attention to his/her friends. Therefore, friends did not influence his/her work. Example answers can be shown as follows:

> "Friends do not have an influence on study or work for me. Because I can take care of myself. "( Participant A)

3. How do the professor(s) influence the learning of physics for the pre-service teacher (Social Persuasion (SP))?

The researchers found that the students were of the opinion that the professor(s) had a great influence on the students' learning. Especially for the teaching and learning activities provided to students, they would feel enthusiastic about learning activities they did. This would allow students to understand more of the subject matter. Moreover, group teaching allowed students to interact with peers which helped with work and study. The students' answers could be displayed in 5 groups as follows:

Group 1 Student A, B, C, D, E and F commented that Teachers have a great influence on students' learning. Especially by using words to encourage students The teacher does not use words to hurt the students' minds. Example answers can be shown as follows:

> "The teachers influence the learning of the students. The instructor often asks and encourages words such as "it's not difficult," "think slowly," don't worry, "and never use words that make you feel bad or discourage your studies. There is constant discussion between students and friends. "( Participant B)

Group 2: Student A, B, C, D, E, and F further commented that the group teaching allowed them to interact with peers which helped with work and study. Example answers can be shown as follows:

> "Teachers cultivate students to help each other work. Create good interactions within the group "(Participant E)

Group 3: Student A, B, and C commented that the Q&A session encouraged them to think about the questions the professor(s) had asked and to check whether they actually understood correctly. Example answers can be shown as follows:

> "Teachers often use questioning methods to encourage students to think. Which allows learners to think together with the instructor "(Participant C)

4. What factors affect students' perceptions of studies in physics (Emotional Arousal (EA))?

The researchers found that the students were of the opinion that they felt good that the professor(s) created group activities and classroom activities which were focused on practices so that they were not bored. The students' answers could be displayed in 5 groups as follows:

Group 1: Student A, B, C, D, E, and F commented that it was good that the professor(s) gave them group activities. Example answers can be shown as follows:

> "The instructor does group activities because it is not boring. I feel good when my teachers assign group work. I don't like my teachers to use questions individually because I feel pressured." (Participant A)

Group 2: Student A, B, C, D, E, and F commented that it was good that the classroom activities were pragmatic and not boring. Example answers can be shown as follows:

> "I love doing experimental activities, group activities, I feel comfortable doing group activities because of having a friend to help me" (Participant B)

Group 3: Student B, C, D, E and F commented that during the teaching practice activities, they had to prepare and understand the content more. However, when they went out to do an experiment to teach their friends, they found that they were excited and nervous, causing them to forget the content. If students had the opportunity to redo and fix their mistakes, they thought they could do better. The first thing to improve for them was to understand more about the content and to focus on teaching more. Example answers can be shown as follows:

> "The practice of teaching makes me aware of my flaws and is ready to improve myself especially on the subject matter. Because I do not understand the subject matter, it affects confidence in the practice. "( Participant F)

Group 4: Student C, D, E and F commented that the problem of studying physics was that they cannot solve physics problems which made them feel discouraged. Example answers can be shown as follows:

> "Studying physics sometimes when I have a difficult problem I feel discouraged" (Participant F)

Group 5: Student A, B, and C commented that the professor(s) sometimes asked questions individually, putting the students in a lot of pressure. Instead, asking in group questions or asking everyone in the room. Example answers can be shown as follows:

> "Feels good when teachers assign group work I don't like my teachers to use questions individually because I feel pressured." (Participant A)

## Conclusion

The results of developing the self-efficacy of pre-service science teachers in physics were found that when comparing the self-efficacy before and after learning management, it showed that the self-efficacy results after learning management were higher than before learning management in all aspects at statically significant level of 0.05. Data from the interviews showed that the main influences in developing self-efficacy included teacher, good interaction between teachers and students, supports from classmates, work group, hands on activities, and questioning. In accordance with Deepika Menon and Troy D. Sadler, (2017) the research found that the inquiry-based science courses positively influenced their self-efficacy for science and science teaching of pre-service teacher. It made in a majority of pre-service teacher's conceptual understanding of science, understanding of the science process and scientific research, confidence with science and science teaching. Mulholland & Wallace (2001) found that the content knowledge and pedagogical content knowledge is important roles in the development of a science teacher's self-efficacy beliefs.

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# *Students' Perceptions of a Designed Online Asynchronous Learning Activity Regarding the Community of Inquiry (CoI) Framework*

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**Abstract**
The COVID-19 pandemic situation has instigated a rapid shift in higher education with the adoption of online instruction or distance learning. This sudden change has forced instructors around the globe to transform or re-design offline courses to utilize online instruction. To effectively design an online course, the Community of Inquiry (CoI) framework has become key for distance learning over the past two decades. In this study, online learning modules were designed in an asynchronous environment for graduate students (N=9) during the second half of the Psychology for Teachers course. The online course content is organized into five modules. Each module includes four phases of learning activities with learning support. The four phases of the learning activities consist of engagement, exploration, group discussion, and individual writing tasks. After completing the course, a CoI survey was applied to investigate students' perceptions of learning activities, covering three elements: Teaching; social; and cognitive presence regarding the CoI framework. The CoI survey results indicate that students were moderately positive towards the teaching, social, and cognitive presence of the CoI framework, while they were highly positive regarding certain aspects of each element. Additionally, the designed learning activities can reflect various dimensions of teaching presence, social presence, and cognitive presence within the CoI framework. The findings of this study can be utilized for the designation of an asynchronous online learning module embedded with learning activities that more effectively support the CoI framework.

Keywords: Community of Inquiry (CoI), Asynchronous, Distance Learning, Online Learning, Higher Education

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## Introduction

Distance education is a form of education that takes advantage of communication technology by connecting teachers and students, even if they are in different locations (Moore & Anderson, 2007). For a long time, distance learning developed in parallel with technological developments in communications and distance learning has been recognized for its potential to disrupt the shape of higher education (Hanna, 2003). The COVID-19 pandemic has accelerated the transformation of teaching and learning in higher education toward online instruction or distance education. This sudden change has necessitated instructors around the world to transform or re-design offline courses to utilizes online instruction.

Changing from offline to online instruction requires the development of pedagogy that can be used as an effective model in online distance education. Based on a social constructivist perspective, the Community of Inquiry (CoI) framework was developed as a guideline to design, develop, and implement online learning. This framework is outstanding in terms of emphasizing the social element of learning (Garrison, Anderson, & Archer, 1999, 2003). Originally, the CoI framework in online education mainly focused on three key presences: Teaching; social; and cognitive presence. During the past twenty years, the CoI framework has been gradually revised to add more presences that must be further investigated to positively impact online learning practice (Kozan & Caskurlu, 2018).

In online learning, the teaching presence is defined as the designation, facilitation, and direction of students' learning; the social presence is defined as the student's ability to realize themselves as part of the learning community; the cognitive presence is described as the student's ability to construct knowledge through sustained communication in a meaningful way (Garrison et al., 2003). The research report strongly confirmed a distinction between the three key elements, however integrating the elements should be designed, facilitated, and directed based on various contexts (Akyol & Garrison, 2008). The CoI framework plays a key role in the designation and implementation of the online learning experience in a more effective manner (Cooper & Scriven, 2017).

Since the CoI framework has been implemented for the designation of online instruction, a research tool was developed to prove the efficacy of the framework. One of the most popular instruments that has been developed to test a measure of the CoI framework was the CoI survey (Arbaugh et al., 2008). The CoI survey consists of 34 items to represent each presence within the CoI framework (see Table 2). The CoI survey has been used as a tool to examine students' perceptions of a designed online course that provided by instructors to identify the specific, actionable areas to improve the learning process in an online learning program (Burgess, Slate, Rojas-LeBouef, & LaPrairie, 2010; Kovanović et al., 2019; Swan, Day, Bogle, & Matthews, 2014; Swan, Matthews, Bogle, Boles, & Day, 2012). The CoI survey also was used as a course survey to measure students' perceptions of the three presences in a developed online learning course (Burgess et al., 2010; Kovanović et al., 2019). The CoI survey results indicate that the tool is valid and reliable to examine learning experiences and in order to compare different premises in various contexts of online and blended learning (Stenbom, 2018; Swan, Richardson, et al., 2008; Swan, Shea, et al., 2008).

In this study, online learning modules were developed in an asynchronous environment for the Psychology for Teachers Course. The online course content is organized into five modules, including classroom management, teaching strategies, teaching models, learning assessment, and the power of teachers. Each module includes four learning activity phases with learning support (see Figure 1). After completing the course, the CoI survey was applied to investigate students' perceptions toward the learning activities in three elements: Teaching; social; and cognitive presence.

## A Designed Online Asynchronous Learning Activity

The 'Psychology for Teachers' course was divided into two parts. In the first half, students were required to learn the fundamental theory and concepts of educational psychology. In the second half, students were required to learn how educational psychology can be applied to the classroom. In response to the COVID-19 pandemic, the Thai government locked down all educational organizations in Thailand, so the second half of the course was transformed into an online course. The online course content was organized into five modules, including classroom management, teaching strategies, teaching models, learning assessment, and the power of teachers. Each module included four phases of learning activities with learning support. The four phases of learning activities consisted of engagement, exploration, group discussion, and individual writing tasks (see Figure 1).

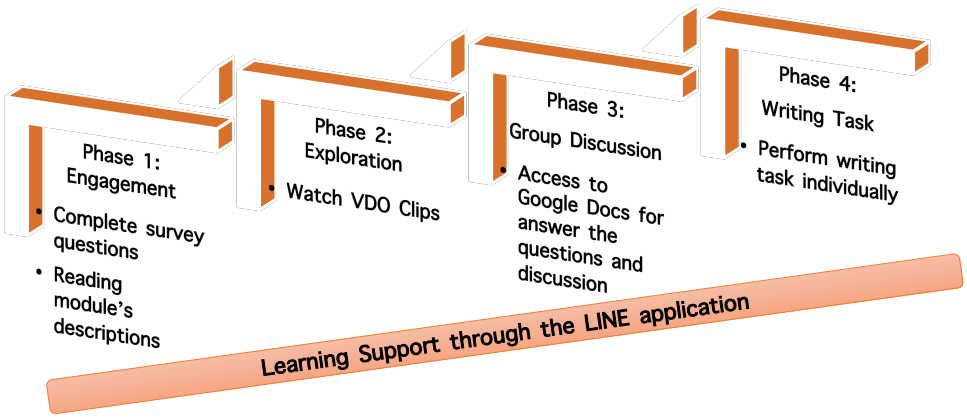


Figure 1: A designed online asynchronous learning activity

## Phase 1: Engagement

In the beginning phase, students answered survey questions so that the teacher could ascertain their prior knowledge of the content. Furthermore, students were assigned to read the module description. The clarification included explanation sentences regarding what students were required to do to complete the learning module and a key question posed to engage the students to explore the video clips in the second phase. The survey and module description were published in LEB2 (Learning Environment version B2) that was created as an online learning platform to support the academic staff at King Mongkut's University of Technology Thonburi in order to design and organize learning activities and to assess students' learning based on the learning outcomes of the course.

**Phase 2: Exploration**

After the students read the posed key question in the first phase, they were assigned to individually watch short video clips that were published publicly on YouTube. In each module, students were required to watch three to four video clips to explore and gather content knowledge (see Table 1). The video clips that were selected for the students' exploration were required to meet two important criteria. First, the video clips must visualize how the educational psychology provided in the module can be applied to the real classroom. Second, the duration of each video clip must not exceed ten minutes, else the students could lose concentration while watching the clip.

Table 1: Sources of Video Clips

| Modules | Sources of video clips |
|---|---|
| 1. Classroom Management | https://youtu.be/eUiWFntut00<br>https://youtu.be/w6vVXmwYvgs<br>https://youtu.be/-Sg1lFE3dfw |
| 2. Teaching Strategies | https://youtu.be/9gNjGD_W3dM<br>https://youtu.be/DVfOJjKV5QE<br>https://youtu.be/txdxPJcMzKE |
| 3. Teaching Models | https://youtu.be/mAYh4nWUkU0<br>https://youtu.be/hnzCGNnU_WM<br>https://youtu.be/zrR-KIoggf4<br>https://youtu.be/-Mb9-At2Ss0 |
| 4. Learning Assessment | https://youtu.be/HFimMJL3Wz0<br>https://youtu.be/Ecp5tFwXA_M<br>https://youtu.be/ZB8LHwqRcaU<br>https://youtu.be/a2UgtgyEDss |
| 5. The Power of Teachers | Students were assigned for searching to watch from their interests. |

**Phase 3: Group Discussion**

A discussion sheet was created using Google Docs as an online collaboration platform. Google Docs can an effective online collaboration tool, in terms of both promoting student collaboration through writing collaboratively in addition to influencing student learning (Zhou, Simpson, & Domizi, 2012). The teacher opened the group discussion by posting the key question and allowing students to write their answers individually. In addition to answering the key question, students were also required to read other responses and use the comment tool in Google Docs to show whether they agreed or disagreed with them. The group discussion was designed to be an asynchronous learning activity. Students could access the discussion sheet at any time, but were required to schedule themselves to participate by answering questions and comment on the other responses at least once per day. This activity was conducted on three days. In the final section, the teacher posted a summary and conclusion of what the students could learn from the module in the discussion sheet.

In this phase, the teacher played an important role to facilitate student participation by asking extended questions. For example, the teacher can use the comment tool to

highlight certain parts of a student's answer and ask the student to clarify the answer. Moreover, the teacher could raise new issues and post new questions to allow students to answer individually, discuss with others, and extend their knowledge. In other words, students were motivated by questions from both the teacher and their peers in order to help them grasp the concept of the module and apply their understandings to explain related issues.

**Phase 4: Individual Writing Task**

This final phase was an evaluation phase. Students were assigned to perform a writing task individually to show their understanding of the content that they had learned during the learning module. The writing task topic was posted in LEB2. For some learning modules, this phase could be integrated with the third phase, in which the teacher would be able to evaluate students' understanding through their answers in the group discussion, thereby skipping this phase.

**Learning Support**

In addition to the four phases of learning activities, the support tool for student learning was created using the LINE application. The LINE application is the most popular social media and communication application in Thailand and can be accessed using any internet connected device. The teacher created a group in the LINE and then invited students to join the group. Students and teachers could take advantage of this platform. Teachers could use this tool to announce when the learning module was launched and remind students to participate on time. Moreover, students could use this tool to informally communicate with the teacher when they did not understand what they were required to do during the learning activities.

**Research Method**

This study aims to answer the research question:

"What are students' perceptions of the designed online asynchronous learning activity regarding the CoI framework?"

The students' perceptions of the designed online asynchronous learning activities were evaluated using the Community of Inquiry survey. After completing all the learning modules, students were asked to complete the CoI survey. The purpose of the CoI survey is to evaluate student perceptions through the three main constructs of the CoI framework: 1) Perceptions of the teaching presence (items 1-13), 2); perceptions of the social presence (items 14-22); and 3) perceptions of the cognitive presence (items 23-34) (see Table 2). The CoI survey was divided into two sections, with the first aiming to investigate student perceptions of the CoI framework in general, and the second section aiming to investigate student perceptions of the CoI framework specific to the learning activities.

In the first section, students were asked how they perceived each statement of the CoI survey using a five-point Likert-scale, from 1- strongly disagree to 5- strongly agree. The results from this section were analyzed and interpreted using the following criteria: Highly negative (1.00-1.50); moderately negative (1.51-2.50); neutral (2.51-

3.50); moderately positive (3.51-4.50); and highly positive (4.51-5.00) (Duangpummet, Chaiyen, & Chenprakhon, 2019), as shown in Table 2.

In the second section, students were asked to choose which learning activities were consistent with the statement of the CoI survey. Consequently, the responses were changed to be the learning activities including completing survey questions, reading module descriptions, watching video clips, group discussions, performing writing tasks, and communicating through the LINE group. For each statement, students were allowed to select more than one response. The results of this section were analyzed and interpreted using mode statistics. If more than 6 out of 9 students (>67%) responded to the proposed learning activities that were be interpreted to be the activities that students could perceive to be consistent with the statement (see Table 3).

## Findings

The findings are reported in two parts according to the two sections of the CoI survey. The results from the first CoI survey portrays student perceptions of the three key elements of the CoI framework in general. The results of the second CoI survey indicate student perceptions of the learning activities related to specific elements within the CoI framework.

In the first part of the CoI survey (see Table 2), the students' perceptions toward the teaching presence were moderately positive, with a mean score of 4.07 ± 0.93. The most positive student perceptions regarded how the teacher could clearly communicate important schedules for learning activities, with a mean score of 4.89 ± 0.33. The students also highly positively perceived the teacher's ability to provide clear instructions on how to participate in the course learning activities and to give feedback in a timely fashion, which both had a mean score of 4.56 ± 0.73. In terms of social presence, the mean score of students' perceptions was moderately positive, at 3.80 ± 0.53. The students had the highest positive perception regarding getting to know each other which gave them a sense of belonging in the course, with a mean score of 4.78 ± 0.67. In terms of cognitive presence, the mean score of students' perceptions was moderately positive, with a mean score of 3.90 ± 0.39. They showed the highest positive perception of the provided questions in the course allowed them to utilize a variety of information sources to explore, with a mean score of 4.78 ± 0.44.

Table 2: Results from the Community of Inquiry (CoI) Survey Part 1

| Items | Mean ± SD |
|---|---|
| **Perceptions of the teaching presence (Item 1-13)** | |
| 1. The instructor clearly communicated important learning topics. | 4.00 ± 0.50 |
| 2. The instructor clearly communicated important learning goals. | 3.89 ± 0.78 |
| 3. The instructor provided clear instructions on how to participate in course learning activities. | 4.56 ± 0.73 |
| 4. The instructor clearly communicated important due dates/timeframes for learning activities. | 4.89 ± 0.33 |
| 5. The instructor was helpful in identifying areas of agreement and disagreement on learning topics that helped me to learn. | 4.00 ± 0.71 |
| 6. The instructor was helpful in guiding the class towards | 3.89 ± 0.60 |

| | |
|---|---|
| understanding learning topics in a way that helped me clarify my thinking. | |
| 7. The instructor helped to keep course participants engaged and participating in productive dialogue. | 3.89 ± 0.78 |
| 8. The instructor helped keep the course participants on task in a way that helped me to learn. | 4.11 ± 0.78 |
| 9. The instructor encouraged course participants to explore new concepts in this course. | 4.11 ± 0.78 |
| 10. Instructor actions reinforced the development of a sense of community among course participants. | 3.67 ± 0.87 |
| 11. The instructor helped to focus discussion on relevant issues in a way that helped me to learn. | 3.89 ± 0.60 |
| 12. The instructor provided feedback that helped me understand my strengths and weaknesses. | 3.44 ± 0.88 |
| 13. The instructor provided feedback in a timely fashion. | 4.56 ± 0.73 |
| **Overall** | **4.07 ± 0.39** |
| **Perceptions of the social presence (Item 14-22)** | |
| 14. Getting to know other course participants gave me a sense of belonging in the course. | 4.78 ± 0.67 |
| 15. I was able to form distinct impressions of some course participants. | 3.33 ± 0.71 |
| 16. Online communication is an excellent medium for social interaction. | 3.22 ± 0.67 |
| 17. I felt comfortable conversing through the online medium. | 3.56 ± 0.73 |
| 18. I felt comfortable participating in the course discussions. | 3.33 ± 0.71 |
| 19. I felt comfortable interacting with other course participants. | 4.00 ± 1.00 |
| 20. I felt comfortable disagreeing with other course participants while still maintaining a sense of trust. | 4.44 ± 0.73 |
| 21. I felt that my point of view was acknowledged by other course participants. | 3.78 ± 0.67 |
| 22. Online discussions help me develop a sense of collaboration. | 3.78 ± 0.67 |
| **Overall** | **3.80 ± 0.53** |
| **Perceptions of the cognitive presence (Item 23-34)** | |
| 23. Key questions posed increased my interest in learning issues. | 3.67 ± 0.50 |
| 24. Learning activities piqued my curiosity. | 3.56 ± 1.13 |
| 25. I felt motivated to explore content related questions. | 4.13 ± 1.05 |
| 26. I utilized a variety of information sources to explore problems posed in this course. | 4.78 ± 0.44 |
| 27. Brainstorming and finding relevant information helped me resolve content related questions. | 4.33 ± 0.71 |
| 28. Online discussions were valuable in helping me appreciate different perspectives. | 4.22 ± 0.83 |
| 29. Combining new information helped me answer questions raised in course activities. | 3.67 ± 0.71 |
| 30. Learning activities helped me construct explanations/solutions. | 3.78 ± 0.67 |
| 31. Reflection on course content and discussions help me understand fundamental concepts in this class. | 3.67 ± 0.50 |
| 32. I can describe ways to test and apply the knowledge created in this course. | 3.56 ± 0.53 |

| | |
|---|---|
| 33. I have developed solutions to course problems that can be applied in practice. | 3.56 ± 0.73 |
| 34. I can apply the knowledge created in this course to my work or other non-class related activities. | 3.89 ± 0.60 |
| **Overall** | **3.90 ± 0.39** |

As mentioned previously, the learning activities in phase 1 (the engagement phase) were divided into two sections, namely completing survey questions and reading module descriptions and key questions. The results of the second part of the CoI survey (see Table 3) indicate that the majority of students perceived there was a teaching presence when reading the module description and posted question activities. This finding is supported by the survey result in part 1 of the CoI survey. If the teacher can clearly communicate the learning topics, learning goals, how to participate in course learning activities, and provide feedback in a timely fashion, the students would be able to perceive the teaching presence element in the design of an online asynchronous course.

Table 3: Results from the Community of Inquiry (CoI) Survey Part 2

| Domain | Phase 1: Engagement | Phase 2: Exploration | Phase 3: Group discussion | Phase 4: Writing task | Learning supporting |
|---|---|---|---|---|---|
| **Teaching Presence** | Item 1 (100%)<br>Item 2 (89%)<br>Item 3 (100%)<br>Item 4 (89%) | Item 9 (67%) | Item 5 (89%)<br>Item 6 (78%)<br>Item 7 (100%)<br>Item 8 (89%)<br>Item 9 (78%)<br>Item 10 (78%)<br>Item 11 (100%)<br>Item 12 (89%)<br>Item 13 (89%) | Item 9 (67%) | - |
| **Social Presence** | - | - | Item 14 (78%)<br>Item 15 (78%)<br>Item 16 (67%)<br>Item 18 (78%)<br>Item 19 (67%)<br>Item 20 (89%)<br>Item 21 (89%)<br>Item 22 (89%) | - | Item 16 (67%)<br>Item 17 (78%) |
| **Cognitive Presence** | - | Item 24 (78%)<br>Item 27 (78%) | Item 23 (67%)<br>Item 24 (67%)<br>Item 25 (78%)<br>Item 26 (100%)<br>Item 27 (100%)<br>Item 28 (100%)<br>Item 29 (100%)<br>Item 30 (100%)<br>Item 31 (100%)<br>Item 32 (89%)<br>Item 33 (89%)<br>Item 34 (89%) | Item 26 (67%)<br>Item 30 (67%)<br>Item 33 (67%)<br>Item 34 (67%) | - |

Students also agreed that watching video clips activity in either phase 2 or the exploration phase can represent both teaching presence and cognitive presence. In addition to the video VDO clips playing an important role by encouraging students to explore new concepts in terms of teaching presence, the activity also piqued students' curiosity. Moreover, it also prompted students to brainstorm and find relevant information to solve key questions in terms of cognitive presence. It is noted that social presence was not perceived by the students because this type of learning activity did not require group work.

Interestingly, the group discussion in phase 3 played a dominant role in promoting all the presences in the online learning modules. For teaching presence, the students agreed that the role of the teacher in the group discussion could help them to focus the discussion on relevant issues, identifying areas of agreement and disagreement on learning topics, and leading the class to understand the learning topics. This finding supports the role of teachers in monitoring and guidance discussion activities so that they are successful are still essential for an online discussion forum (Junus, Santoso, Sadita, R-Suradijono, & Suhartanto, 2018). Besides, asking extended questions could keeping students to engage and participate in productive dialogue, encourage them to explore new concepts, and reinforce the development of a sense of community among course participants. Moreover, students perceived that providing feedback by commenting on students' answers or asking further questions in a timely fashion could help them to understand their strengths and weaknesses.

Group discussions also promoted the social presence of the course in almost all aspects of the CoI survey. In the designed course, the students felt comfortable to participate and interact with others in the group discussion. They also felt comfortable to share their point of view with others because some of their opinions could form distinct impressions and were acknowledged by others. Even if some opinions might contrast with others, they still maintained a sense of trust. It is noticed that the majority of students considered that using Google Docs as an online discussion platform did not make them comfortable in place of using the LINE group application, which might because they were less familiar with Google Docs compared to LINE. Overall, the students agreed that online communication is an excellent medium for social interaction and that it helped them to develop a sense of collaboration in the designed course. The findings are related to previous research that found a strong relationship between student perceptions of motivation, enjoyment, and learning through online discussions (Hobgood, 2007).

In terms of cognitive presence, the students agreed that group discussions could promote their learning throughout the course. They perceived that the guiding questions prompted an interest with learning issues, piqued their curiosity, and motivated them to explore and utilize various sources of information to answer the questions. Students also agreed that during the discussion process, they had opportunities to brainstorm with others, appreciate other perspectives, combine new information with their prior knowledge, allow them to reflect for greater understanding, and construct explanations or solutions by themselves. Moreover, they perceived that the group discussions increased their confidence to apply their understanding and knowledge in order to solve related problems in real practice. The findings are related to previous research that claimed that asynchronous online

discussions can promote students' active learning, even in the absence of face-to-face interaction (Comer & Lenaghan, 2013; Krasnova & Ananjev, 2015).

The phase 4 writing task results indicate that this designed activity can represent teaching presence and cognitive presence but is limited to social presence. In terms of teaching presence, students perceived that they were encouraged to explore new concepts in the course through writing about the assigned topic. In terms of cognitive presence, they agreed that writing tasks had a role in helping them to formulate their explanations by utilizing a variety of information sources. Students also considered that they could bring the developed solutions in addition to created knowledge from writing tasks to apply in their work or other non-class related activities.

Finally, the supporting system of student learning allowed students to access through the LINE application. The result clearly shows that communication through the LINE application can promote students' perception of social presence. The majority of the students considered that the LINE application was an excellent medium for social interaction for the course. Interestingly, they felt more comfortable conversing through LINE than Google docs. The result may indicate that conversing through an informal platform such as LINE is an essential part of online communication in addition to the formal conversation.

In summary, the study results indicate that the students can perceive the existence of the teacher in all phases of the learning modules, even in the absence of face-to-face student-teacher interaction. It is noted that during phase 2 (exploration) and phase 4 (writing task), no teachers interacted with students at all, but students perceived that they were taught because the instructor encouraged the course participants to explore new concepts during the course. That might be the reason that in an asynchronous learning environment, teachers play an important role in choosing effective educational media that could help students do self-study effectively, even in the absence of teachers. Besides, the writing task in phase 4 could promote students to explore further knowledge to clarify their thoughts. In terms of social presence, the results indicated that students could perceive they were socialized when they had the opportunity to communicate with others, both formally and informally. Group discussion was the main space for them to interact with others through learning activities. The students perceived that both the discussion sheet and the LINE application provided them with excellent mediums for social interaction, yet they felt more comfortable communicating via the LINE application. In terms of cognitive presence, the students considered that they gained knowledge and understanding of the content in phases 2 (exploration), 3 (group discussion), and 4 (writing task). The results indicate that well-organized online learning activities in an asynchronous environment can reflect teaching, social, and cognitive presence according to the CoI framework.

## Conclusion and implications

In this study, online learning modules were designed in an asynchronous environment using the Community of Inquiry (CoI) as a framework and implemented with graduate students (N=9). The learning activities comprised five modules, and in each module the students were required to complete learning activities including answering survey question(s), self-study with posted video clips, group discussion of key

questions, and performing an individual writing task. After completing the course, the CoI questionnaire was used to investigate students' perceptions of learning activities in the three elements of the CoI framework, namely teaching, social, and cognitive presence. The results of this study clearly indicate that students showed moderately positive perceptions of the three key elements of the CoI framework and highly positive perceptions for certain aspects of each element. Additionally, the designed learning activities in the four phases and one supporting system for students' learning can reflect various dimensions of the teaching presence, social presence, and cognitive presence within the CoI framework. This study provides an effective example for the design online learning activities in an asynchronous environment in order to reflect teaching, social, and cognitive presence according to the CoI framework. Moreover, these can be utilized in the design of an asynchronous online learning module embedded with learning activities that support the CoI framework more effectively.

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# *Factor Structure and Psychometric Properties of the Thai Version of the Body Appreciation Scale-2*

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**Abstract**
The purpose of this study is to develop and validate the Thai version of the Body Appreciation Scale-2 (BAS-2). Previous empirical research suggests that body appreciation is associated with a number of positive psychological outcomes such as life-satisfaction and self-esteem in female samples. A total number of 217 Thai females, whose mean age was 47.1 years old ($SD$ = 1), participated in the current study. They responded to the Thai version of the BAS-2, which was developed through backtranslation process, along with the Physical Body Experiences Questionnaires (PBE) and the Body Surveillance (BS) subscale from the Objectified Body Consciousness Scales. Scores from the latter two measures were empirically shown to be positively and negatively associated with that of BAS-2, respectively; their completions were thus used to examine convergent validity of the Thai version of the BAS-2. Data analyses demonstrated that the Thai version of the BAS-2 had high internal consistency ($\alpha$ = .90). Corrected item-total correlations for its items were significant, ranging between .53 and .75, suggesting that no item removal or revision was needed. Factor structure analysis revealed that the Thai version of the BAS-2 had a unidimensional factor structure. As for its convergent validity, the BAS-2 scores were and negatively associated with the BS subscale scores, $r$ = .23, $p$ < .001, and positively associated with the PBE scores, $r$ = .42, $p$ < .001. The Thai version of the BAS-2 appears be a reliable and valid measure of body appreciation for Thai females.

Keyword: Cross-Cultural Scale Development, Positive Body Image, Body Appreciation, Embodiment, Body-Surveillance

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## Introduction

Body appreciation is one of the most extensively studied features of positive body image. The construct encompasses love, respect, appreciation, and acceptance of one's body regardless of its appearance, and it protects the body against the negative influence of body-related media exposure (Avalos, Tylka, & Wood-Barcalow, 2005). It is associated positively with psychological well-being (i.e., life-satisfaction, self-esteem, and self-compassion) and negatively with disordered eating and body preoccupation (Avalos et al., 2005).

A robust body of evidence suggests that body appreciation is psychologically beneficial. For example, body appreciation is associated with self-esteem. Wasylkiw, MacKinnon, and MacLellan (2012) suggested that women with high self-esteem tend to evaluate their body in a more positive light. Additionally, these authors also found that being compassionate toward oneself is linked to greater appreciation toward one's body. Furthermore, a comprehensive study on well-being in British adults suggested that body appreciation is related to three indicators of well-being namely emotional (i.e., life satisfaction), social (i.e., how well an individual function as a member of a large society) and psychological (i.e., autonomy and personal growth) indicators (Swami, Weis, Barron, & Furnham, 2018).

Body appreciation is associated with body image disturbance and disordered eating (Avalos et al., 2005). Conversations concerning weight loss and dieting are linked to decreased appreciation of one's body; in contrast, conversations about exercise are linked to increased body appreciation through focusing on bodily functions and abilities rather than appearance (Wasylkiw & Butler, 2014). Swami (2009) found that individuals with low body appreciation are more likely to view cosmetic surgery positively as they perceive it as the means to enhance or repair their appearance. Individuals who appreciate their bodies are more likely to exercise regularly, seek health care, and less likely to have body image related issues such as engaging in maladaptive eating habits which could develop into eating disorders or seeking plastic surgery in order to alter their appearance (American Psychiatric Association, 2000; Tylka, 2011; Tiggemann & Lynch, 2001). Furthermore, Avalos and Tylka (2006) found body appreciation to be associated with intuitive eating or eating according to inner bodily signals (i.e., hunger and satiety cues) rather than situational cues (i.e., diet plan or time of day).

Given the significance of body appreciation for both the domain of body image and psychological well-being and functioning, Avalos et al. (2005) developed the 13-item Body Appreciation Scale (BAS) to assess body appreciation. The BAS has a unidimensional factor loading and, adequate internal consistency, test-retest reliability, and construct validity (Avalos et al., 2005). However, some of the items are not gender-neutral, which complicates the administration process (Avalos et al., 2005). Furthermore, cross-cultural studies show inconsistent factor loadings (i.e., a two-factor solution was found in Brazilian and Polish samples; Taylor, Szpakowska, & Swami, 2013; Swami et al., 2011). In 2015, Tylka and Wood-Barcalow revised the original BAS. Specifically, they reworded some of the items to make them more gender-neutral, as well as rephrasing and replacing items that had low factor. Furthermore, they added several new items based on recent findings on the positive body image construct. The revised version is called the Body Appreciation Scale-2 (BAS-2). The only available

Thai version of the BAS was developed from the original BAS by Liptapanlop in 2015. Given that the recently developed BAS-2 was not yet available in Thai, the researcher aimed to develop and validate psychometric properties of the BAS-2 in Thai using a sample of Thai females.

Therefore, the current study was proposed to develop the Thai version of the BAS-2. Data will be collected from Thai females, the gender group reported to be particularly vulnerable to compromised body satisfaction (e.g. Avalos and Tylka, 2006). Backtranslation process (Brislin, 1970) would be employed. The psychometric properties of the translated measure would be examined. These included internal consistency, factor structure, criterion validity, and convergent validity. The constructs of body surveillance and embodiment were selected as criteria to investigate convergent validity of the BAS-2.

Body surveillance has been consistently examined in the body image literature. It refers to the belief that the society places emphasis on outward appearance. This belief may lead women to constantly check their bodies and compare what they see to societal expectations or influences (McKinley & Hyde, 1996). Overtime, their appreciation for the bodies becomes bounded by their body appearances, thus lowering their body appreciation (Avalos et al., 2005). Consistent with this notion, a number of studies found body appreciation to be correlated negatively with body surveillance (Alleva, Tylka & Kroon Van Diest, 2020 2017; Menzel, 2010; Pellizer, Tiggemann & Clark, 2016).

In contrast to body surveillance, embodiment has been found to be positively relate to body appreciation. Embodied individuals have deep and comfortable intrapersonal connections with their bodies, allowing them to attend and respond to their bodily needs while appreciating all aspects of their body (Menzel & Levine, 2011). In line with this, several studies found body appreciation to be positively correlated with embodiment (e.g., Pellizer, Tiggemann & Clark, 2016; Menzel, 2010). Based on their associations with body appreciation, body surveillance and embodiment would be used to examine concurrent validity of the Thai version of the BAS-2.

## Method

The researcher obtained permission to use the BAS-2 from the developers (Tylka & Wood-Barcalow, 2015) and was granted ethical approval for the study (IRB: 247.1/62) from Chulalongkorn University Research Ethics Review Committee for Research Involving Human Subjects. The BAS-2, and the Physical Body Experiences Questionnaires (PBE; Menzel, 2010) were translated into Thai by a bilingual speaker. They were then translated back to English by another bilingual speaker. Afterward, an English speaker blind to the procedure compared the backtranslated to the original versions. The Thai versions were then reviewed by the experts for face validity.

Regarding the number of participants needed in this study, G*power suggested that there should be at least 20 participants for each predictive variable. However, to allow for missing data and to maximize statistical power, the participant number was raised to 217 (Pan, Liu, Miao, & Yuan, 2018). Participants in this study were 217 Thai females. Participants ranged in age from 18 to 61 years, and the average age was 47.1 years old (*SD* = 1). Participants completed the survey package online in the following

order: demographic information, the BAS-2, the PBE, and the Body Surveillance (BS) subscale (McKinley & Hyde, 1996). Participants took approximately 15-20 minutes to complete the measures.

**The BAS-2**

The BAS-2 was a measure of body appreciation. It contained 10 items which inquired the extent to which participants held favourable opinions toward, accepted, and respected their bodies on a 5-point Likert scale (1 = "Never" and 5 "Always"). Examples of the items were "I feel that my body has at least some good qualities" and "I respect my body". All items were positively worded. Higher scores on the BAS-2 indicated greater levels of body appreciation. The possible score range was between 5 and 50. The BAS-2 demonstrated evidence of construct validity, good test-retest reliability stability over a 3-week period ($r$ = .90), and good internal consistency (α = .97) (Tylka & Wood-Barcalow, 2015).

**The BS Subscale**

Based on the past literature (e.g., Mercurio & Landry, 2008; Tiggemann & Lynch, 2001), the researcher chose the BS subscale from the Objectified Body Consciousness Scales (McKinley & Hyde, 1996) as a measure of body surveillance in the present study. The eight items of the BS subscale assessed the extent to which women monitored their bodies and placed emphasis on how they looked rather than how they felt on a 7-point Likert Scale (1= "Strongly disagree" and 7 = "Strongly agree"). An example of the items was "I often worry about whether that clothes I'm wearing make me look good." Two items were positively worded and six items negatively worded. The BS subscale scores were calculated by first reverse-scoring the negatively worded items and summing these and scores from the other items. Higher BS subscale scores indicated greater levels of body surveillance. The possible score range was between 6 and 48. The BS subscale was translated into Thai by Liptapanlop (2015) and showed adequate to good internal consistency (α = .76-.89) and stability over a 2-week period, ($r$ = .79; McKinley & Hyde, 1996). Its Cronbach's alpha in the present study was .65.

**The PBE**

The PBE (Menzel, 2010) was an 18-item measure of embodiment or the extent to which participants felt connected to their bodies. It covered four characteristics of embodiment namely mind/body connection, body acceptance, physical competence, and knowledge of physical limits. Participants responded to the PBE items on a 7-point Likert scale (1 = "Not at all true about me" and 7 = "Very true about me"). Examples of the items were "I respect my body's physical limits," "I enjoy using my body to explore new skills," and "I feel good inside my body." Sixteen items were positively worded and two items (i.e., items 1 and 16) negatively worded. The PBE scores were calculated by first reverse-scoring the negatively worded items and summing these and scores from the other items. Higher PBE scores indicated greater levels of embodiment. The possible score range was between 18 and 126. The PBE showed adequate construct validity and high internal consistency in female undergraduate samples (α = .94; Menzel, 2010), yoga (α = .89-.91), and non-yoga practitioners (α = .90; Mahlo & Tiggemann, 2016). Its Cronbach's alpha in the present study was .86.

## Data analyses

IBM SPSS Statistics 22 was be used for data analyses. Descriptive statistics including means and standard deviations were calculated for participants' demographic information and each measure in the present study. To examine reliability of the Thai version of the BAS-2, its Cronbach's coefficient alpha and corrected item-total correlations (CITCs) were computed. The Structural Equation Model with a maximum likelihood estimation using IBM SPSS Amos 22 was utilized to examine its model fit. Eight indicators of model fit were used: chi-square ($\chi 2$), chi-square per degree of freedom ($\chi 2/df$), root mean square error of approximation (RMSEA), Tucker and Lewis Index (TLI), normed fit index (NFI), comparative fit index (CFI), goodness of fit index (GFI) and adjusted goodness of fit index (AGFI) were used to determine the overall fit of the tested model (Reuterberg & Gustafsson, 1992). To examine convergent validity of the BAS-2, Pearson product-moment correlation coefficients between the BAS-2 and BS subscales scores, and the BAS-2 and PBE scores were computed.

## Results

The Thai version of the BAS-2 demonstrated acceptable internal consistency ($\alpha = .90$). Furthermore, CITCs for its 10 items, ranging between .53 and .75, were significant. CFA revealed that a single-factor solution was a good fit for the measure, $\chi 2 = 2.19$, $df = 30$, $p = .000$; CFI = .966; TLI = .949, and RMSEA = .074.

Item discrimination for high and low score groups test was analyzed using between-participants *t*-test. The results showed significant difference in body appreciation scores between low- and high-score groups.

**Table 1.** *Descriptive statistics of BAS-2, PBE, and BS subscale scores and their intercorrelations (*N = *217).*

| Scale | *M* | *SD* | Actual Range | Possible Range | 1 | 2 | 3 |
|---|---|---|---|---|---|---|---|
| BAS-2 | 4.47 | 0.49 | 1-5 | 1-5 | - | | |
| BS Subscale | 2.93 | 0.73 | 1-6 | 1-6 | -.23** | -.12 | - |
| PBE | 5.18 | 0.57 | 1-7 | 1-7 | .42** | - | |

**$p < .01$

To examine convergent validity of the BAS-2, Pearson product-moment correlation coefficient was calculated. As shown in Table 1, the BAS-2 scores were significantly and negatively associated with the BS subscale scores and positively associated with the PBE scores.

## Discussion

The aim of this study was to investigate the psychometric properties of the Thai version of the BAS-2 (Tylka & Wood-Barcalow, 2015). The internal consistency of the BAS-2 ($\alpha = .90$) was acceptable, and it should be noted that this was within the same range as that reported in the original study ($\alpha = .97$; Tylka & Wood-Barcalow, 2015). The internal consistency of the BAS-2 was also comparable to the internal consistency coefficients reported for other versions of the BAS-2 such as the French ($\alpha = .92$;

Kertechian & Swami, 2017), Polish ($\alpha$ = .93; Razmus & Razmus, 2017), and Spanish ($\alpha$ = .90; Swami, Alias Garcia, & Barron, 2017) versions. Furthermore, none of the BAS-2 items demonstrated CITCs below 0, indicating that no items needed to be revised or removed.

Results from CFA supported the unidimensional factor structure of the BAS-2. This finding is consistent with the factor structure of the BAS-2 reported in the original study (Tylka & Wood-Barcalow, 2015) and studies in Iran (Atari, 2016), Poland (Razmus & Razmus, 2017), Denmark, Sweden, and Portugal (Lemoine et al., 2018). The consistency of the factor structure of the BAS-2 across countries suggests that the measure has the potential to be used for cross-cultural comparisons of body appreciation and promote greater understanding of positive body image.

Regarding its convergent validity, a negative correlation was found between the BAS-2 and BS subscale scores. This is consistent with previous studies which showed that individuals with high levels of body appreciation tend to have lower levels of body surveillance such that they are more likely to reject societal appearance standards and do not habitually monitor their outward appearance from an observer view (Wood-Barcalow, Tylka, Augustus-Horvath, 2010; Holmqvist & Frisen, 2012). In contrast, individuals who are not frequently monitoring their looks may be more likely to recognise other aspects of their body, other than looks, such as its ability to demonstrate strength, to learn new movement, and to support us in daily activities (Wood-Barcalow et al., 2010; Holmqvist & Frisen, 2012).

The finding that the BAS-2 and PBE were positively correlated is also in line with previous research. Menzel and Levine's (2011) found a positive association between body appreciation and embodiment. They suggested that embodied individuals tend to have deep and comfortable intrapersonal connections with their bodies, which allows them to attend and respond to bodily needs while appreciating with all aspects of their bodies. Additionally, individuals who respect, appreciate, and accept their bodies regardless of their appearances may have positive connection with their bodies and feel that they are trustworthy and competent.

## Future Directions

As a robust body of evidence suggests that body appreciation is associated with many positive outcomes including greater self-compassion (Wasylkiw, MacKinnon & MacLellan, 2012), self-esteem (Swami, Stieger, Haubner & Voracek, 2008), lower attachment anxiety and avoidance, maladaptive perfectionism and depression (Iannantuono & Tylka, 2012), future research should employ these related variables to examine the validity of the Thai version of the BAS-2. Additionally, the present study only consisted of female participants, future study could employ male samples to examine the wider application of the Thai version of the BAS-2.

## Conclusion

The Thai translation of the BAS-2 has acceptable good psychometric properties, suggesting that it is a reliable and valid measure of body appreciation among Thai females.

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# *Physics Instruction Using High-Speed Video Analysis Technique*

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**Abstract**
In this study, we report on the use of tracker video analysis and high-speed camera as an interactive approach to study the free fall. The video camera is used to collect position and time data, which can then be used to mathematically and graphically model. Anything related to the position and motion of the object. In the experiment, we compared the objects from free-falling, wood block and ball in two approach. The camera that recorded the motion of free fall at a frame rate up to 240 frames per second (fps), analysis of the motion is performed at different angles for the wood block and the ball is released from the high that related in the different angles. The results were measured linear speed, angular speed and acceleration in the motion of them. At the same fulcrum point, it was found that the linear speed was changed in different angle, but it did not affect in the angular speed. The free-falling of the ball in this experiment, the distance or the displacement of a ball was proportional to the time squared and the agreement with the theory. The video analysis served as an effective means to collect, analyze, and report data and also enable the analysis of some situations that would not otherwise be possible. Deep learning adds a lot of support to the rapid development in physics classroom.

Keywords: Tracker, High-Speed Video, Video Analysis

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## Introduction

Physics is a subject that deals with phenomena in the real world. Efforts to model the physical world. In trying to solve physics problems, we often need to understand the physical phenomena that arise because many real-world problems are associated with phenomena. Students are required to have a solid understanding of several fundamental physics concepts in order to solve problems correctly. It has long been understood that textbooks by themselves and it cannot communicate physics concepts effectively to students. (Tuite, 1967) The study of video analysis was established in physics education. The application of research in physics education, combined with computer-based materials that students find exciting to use and helps them learn complex concepts. The video analysis tools can help students develop an understanding of kinematics graphs, a fundamental part of introductory physics. However, the teachers must supply a variety of ways for students to become involved with the content, essentially establishing for learning. (R. Beichner,1996; P. Laws and H. Pfister, 1998)

Currently, there are articles in physics studying a variety of studies in which high-speed video cameras are used to study the motion of objects, such as the study of the air resistance of the free falling of object. Experimental activities can motivate students and open their minds to understanding physics. The experiments of one and two-dimensional motion are the concepts that underlie almost all other concepts in physics. It was important to build student's experiences of the concept based on digital cameras and Tracker software. It can be used as a physics learning media on motion kinematics materials that can display various kinematics graphs so that information about motion is complete. The development and use of technology are important in the field of education to support the need for learning in introducing concepts about motion in physics. (Vera F. and Romanque C.,2009; Bryan, J. A., 2010; Wee, L.K., et al.,2012; Vera, F., Rivera, R. and Fuentes, R., 2013).

The Tracker program was allowed students to create simple of particle motion on a video clip. It makes learning connected to real life and powerful as it provides a mechanism to progressively triangulate their understanding through the video model pedagogy. Analysis of the Tracker program, which uses a high-speed video camera to study the motion of an object, will make it easier to understand its principles than what we have studied in theory. The students can easily download Tracker to their own computers, they can use it for independent projects or extended homework assignments as well. We can also apply them to teaching and learning in physics courses. (D. Brown and A.J. Cox, 2009) Corresponding with Pattar, U., Raybagkar, V.H., and Garg, S. (2012) that student's understanding of physics concepts is improved because they discover them for themselves through hands-on experience through experimental activities.

The solution to increase understanding of physics concepts about motion is an activity real experiment video analysis. This study aims to helping students understand about the free fall of an object. Especially the comparison between the falling of the wooden block at the various angle with the free fall of the ball. Using real studies on the movement of real experiment video clips through video analysis with Tracker program.

## Method

In experiment, we set the composition in figure 1. The high-speed camera for video shooting and used the image-to-time ratio (frame rate) at 240 frames/sec. In experiment, we set the composition in figure 1. The high-speed camera for video shooting and used the image-to-time ratio (frame rate) at 240 frames / sec. The students start shooting a video of the fall of the wood block and the free fall of the ball. Then take the videos that have been analyzed with Tracker program. The study was divided into two part. Part one of the experiment was finding the linear and angular velocity of the wood block and the ball with the same position. Part two of the experiment was finding the acceleration of the wood block and the ball with the various position.

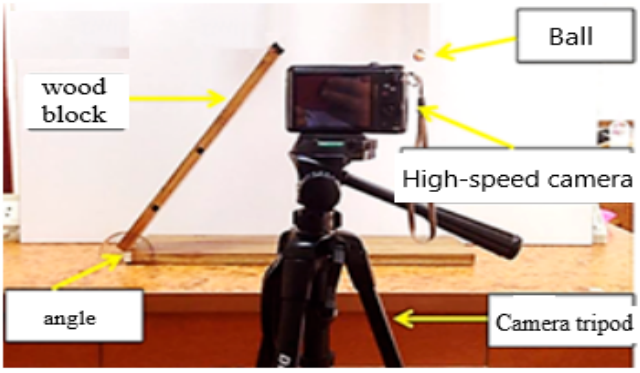



Figure 1: This is an image of experiment 's composition

## Results

In this experiment of part one, the relationship between angular and linear velocity at different locations on a falling wood block was studied. It was starting the wood block at an angle of 60 degrees to the level. In figure 2, the study of numerical data in the table. It was obtained by tracking A and B positions of the bars from the Tracker program using the time (t), linear speed (v) and angular velocity (ω) of both positions on the wood block. To find the correlation of such information as shown in Table 1

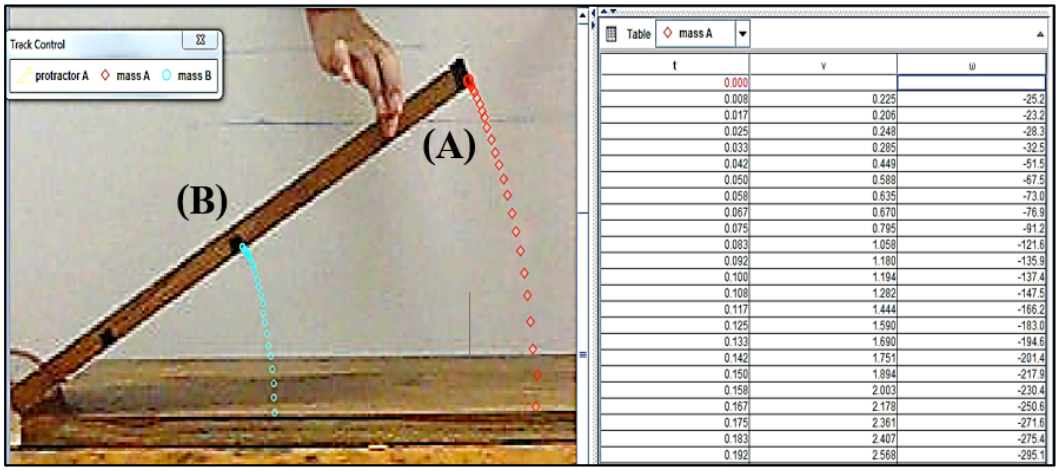
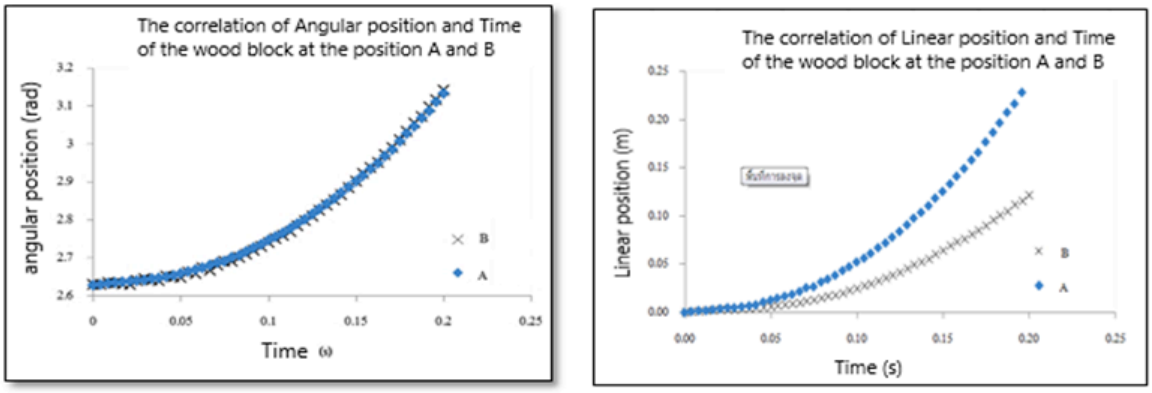



Figure 2: This is an image of the tracking of A and B positions of the wood block from the Tracker program

Table 1: Time, Linear velocity, Angular velocity of the A and B positions of the wood block

| t (s) | Linear velocity,v (m/s) | | Angular velocity ,ω (rad/s) | | | $R_A=\frac{v_A}{\omega_A}$ | $R_B=\frac{v_B}{\omega_B}$ |
|---|---|---|---|---|---|---|---|
| | position A | position B | position A | position B | %diff | | |
| 0.008 | 0.284 | 0.135 | 0.556 | 0.541 | 2.734 | 0.511 | 0.250 |
| 0.025 | 0.253 | 0.135 | 0.487 | 0.504 | 3.431 | 0.520 | 0.268 |
| 0.033 | 0.288 | 0.149 | 0.577 | 0.577 | 0.000 | 0.499 | 0.258 |
| 0.058 | 0.572 | 0.287 | 1.146 | 1.141 | 0.437 | 0.499 | 0.252 |
| 0.063 | 0.699 | 0.351 | 1.399 | 1.404 | 0.357 | 0.500 | 0.250 |
| 0.121 | 1.520 | 0.752 | 3.049 | 3.048 | 0.031 | 0.499 | 0.247 |
| 0.129 | 1.660 | 0.853 | 3.334 | 3.337 | 0.090 | 0.498 | 0.256 |
| 0.175 | 2.588 | 1.258 | 5.127 | 5.129 | 0.039 | 0.505 | 0.245 |
| | | | %diff | | 0.890 | 0.504 | 0.253 |

The data were analyzed by the Tracker program using the time (t), linear velocity (v) and angular velocity (ω) of both positions on the stick. To find the correlation of such information. Both cases of velocity data are graphed were shown in figure 3




(A) (B)

Figure 3: This is an image of the correlation of such information (A) The correlation of angular position and the wood block at the position A and B (B) The correlation of linear position and the wood block at the position A and B

From figure. 3, it was found that while the wood block falls around a pivot point at a different distance from the pivot point. The linear velocity is different by the closest position. The pivot point has less linear velocity. However, the angular velocity of different positions be equal.

In the part two of the experiment was finding the acceleration of the wood block and the ball with the various position. An experiment was to release the wood block and the ball at the same height, and time, where the bar was tilted at an angle of 40,50,55,60 and 70 to the vertical. It was shown in figure 4.

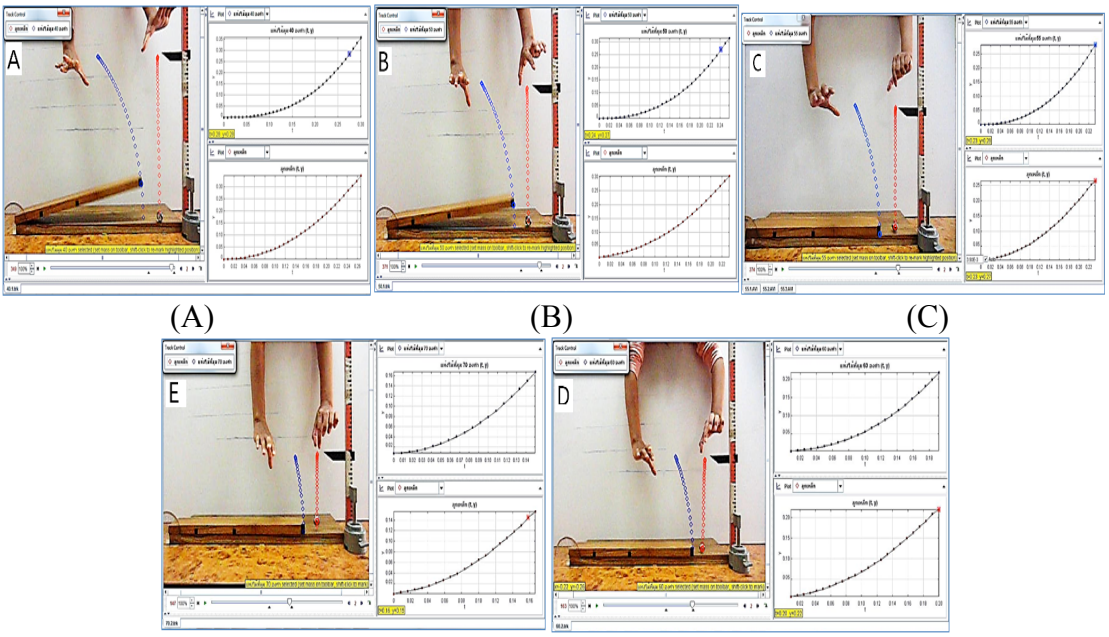



Figure 4: This is an image of the bar was tilted at an angle of (A) 40° (B) 50° (C) 55° (D) 60°and (E) 70° to the vertical

From figure 4, it was found that the wood block and the ball were released at the same height from the ground. The initial angle releasing the wood block were 40 and 50 degrees. The ball reaches the ground first. The initial angle released at 55 degrees, both objects will land at the same time. At the initial angle, releasing more than 55 degrees, the wood block will fall faster. The studying the vertical acceleration of the tip of the wood block and the acceleration of the ball. Which was analyzed by graphing fit with the equation y = 0.5*a* tt + B in Tracker program data tool application tool was shown in figure 5.

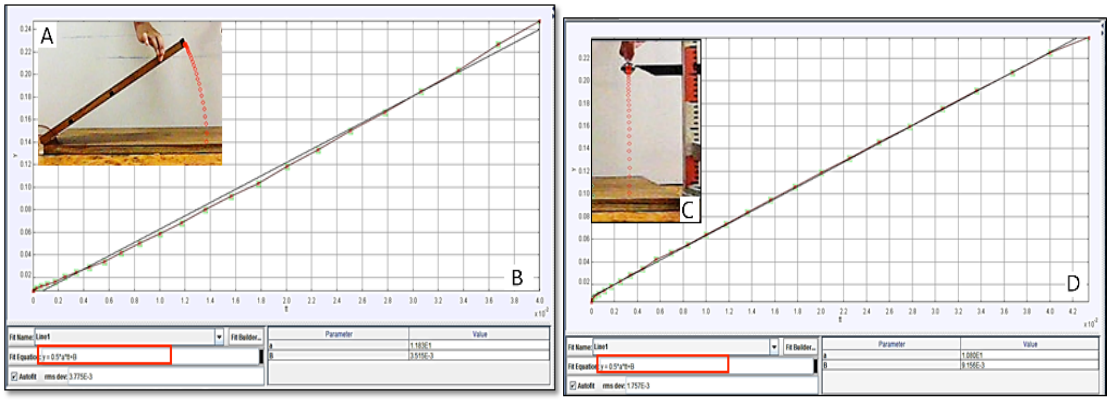



Figure 5: This is an image of the acceleration from the wood block tip and the ball with tracker program analysis (A) Trajectory of wood block tip (B) An acceleration graph from the wood block tip with Tracker program (C) The trajectory of the ball (D) The graph showing the acceleration from the Tracker program of the ball.

From figure 5, the graph of the relationship of the vertical axis position with the time squared. It was found that the graphs obtained were linear when the graph was fitted with the equation y = 0.5*a*tt + B and compared with the linear graph equation S = ½* $gt^2$. The release of wood block and the ball with various initial angles. When data

from figure 5 is used to compare the two objects' fall. It was found that the ball reached the ground first, with wood block having an acceleration of 6.47 and 8.84 $m/s^2$. At the initial drop angle greater than 55 degrees, angles of 60 and 70 degrees. It was found that the wood block falls faster than the ball and an acceleration were 11.53 and 13.21 $m/s^2$ respectively.

## Conclusion

From the experiment of the free falling of the wood block to the ground with an initial angle of 60 degrees to the vertical. The recording video was performed with a high-speed with a frame rate of 240 frames/sec and analyzed by Tracker program to consider two sample positions on a wood block, A and B. Determined from position A and B, where the position A is further from the pivot than the position B. While the stick fell around a pivot point at a position from a different pivot point, linear speed has different values. The angular velocity of both positions is the same. The comparing of the falling of the stick with the free fall of the steel ball. The free falling of the wood block and the ball at the same height from the ground. The initial angle of the beam was 40 and 50 degrees. It was found that the ball reached the ground first, with wood block having an acceleration of 6.47 and 8.84 $m/s^2$ respectively. When released at an initial angle of 55 degrees, both objects fall to the ground simultaneously with similar acceleration and a percentage difference of 1.01% and at the initial drop angle greater than 55 degrees, angles of 60 and 70 degrees. When released at an initial angle of 55 degrees, both objects fall to the ground simultaneously with similar acceleration and a percentage difference of 1.01% and at the initial drop angle greater than 55 degrees, angles of 60 and 70 degrees. It was found that the wood block falls faster than the ball and an acceleration were 11.53 and 13.21 $m/s^2$ respectively.

In summary, the using video and multimedia resources in physics education helps students create multiple representations of physical phenomena. Since a large number of physics concepts involve correct visualization to get a good grasp, these resources can take teaching and learning physics to a much higher level.

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# *Instructional Strategies of Teachers in Small-sized Schools to Develop Students' Science Competencies through Professional Learning Community*

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**Abstract**
The present study aimed to develop the strategy for instructional of teachers in small-sized schools. The objectives of this study were to enhance learners' scientific competencies through a professional learning community and to synthesize teachers' strategy regarding instructional. The practical action research methodology was implemented as the framework of this study. The scope of this research was within schools under the Bureau of Educational Area for the primary level in Phetchabun Province. The pilot study was conducted at four schools located in the research area. The participants comprised four school directors, eight science teachers, and ten students. In the research operational phrase, two schools in the research area were selected. The participants included two school directors, six science teachers, and thirty students. The research instruments consisted of an in-depth questionnaire, an observation form of teachers' instructional and an observation form of students' learning performance and content analysis.This research study found that 1) there were improvements of teachers from small-sized schools in their instructional to develop students' scientific competencies in terms of the language aspect, activity engagement, and social participation 2) the instructional strategies to develop students' scientific competencies consisted of three sets, including inquiry method strategy, stimulating thought strategy and situations in daily life strategy.

Keywords: Instructional Strategies, Scientific Competencies, Professional Learning Community

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## Introduction

Teachers are one of the most essential resources to the development of educational quality standards. According to the present and future education reform approach, teachers play a crucial part in equipping children and youth of the nation to attain the goal of being a learning person as stated by the National Education Act**.** National Year 1999 and the amendment (No. 2) 2002, which provides that "the Ministry of Education promote the improvement in quantity and quality of teachers, faculties and educational personnel, suitable for the noblest profession"

Scientific Literacy is the ability to identify and evaluate arguments in daily lives based on the scientific concepts and processes whether the arguments are acceptable or not. Scientific Literacy is important to life in the 21st century as it enables people to understand social issues that science is involved in, so that great science-based decisions are achieved.

The components of the assessment of scientific knowledge include 1) the context of science 2) scientific knowledge 3) attitude and 4) scientific competencies which are divided into three competencies: explaining phenomena scientifically, assessing and designing the process of scientific knowledge acquisition, and interpreting data and testimony in science (OECD, 2016). According to the results of the PISA scientific assessment, it found that the scientific literacy of Thai students between PISA 2000 and PISA 2015 was still below the OECD average of 501 points (National PISA Operations Center, Institute for the Promotion of Teaching Science and Technology, 2016). It suggests that science teachers are required to adjust their teaching methods, especially teachers in small-sized schools which are an educational institution with fewer than 120 students.

As reported by the Office of the Basic Education Commission, small-sized schools with fewer than 120 children accounted for 15,000 or 50 percent of the total number of schools in 2017. Their major problems arose from a shortage of specialized teachers and an insufficiency of the number of teachers to fill classrooms, which caused the problem of teaching management including an insufficiency of time to prepare well-planned lessons since some time were needed to allocate to other school works. Consequently, most teachers focused on lectures and used less innovative teaching materials, lacked interactions with colleagues who taught in the same courses. Similarly, they also had no training time that allowed students to find and build their own knowledge from a variety of sources. These made teaching contents and practices irrelevant to real-life activities (Office of the Education Council, 2008).

Having considered the issues related to teacher development and instruction in the 21st century, it is found that the crucial concept in teacher development is to create a professional learning community emphasizing on teacher learning. It acts as a change agent to share teaching experiences gained from both inside and outside the classroom and to foster collaborative learning among teachers as a means for them to take part in change processes (DuFour, R., DuFour, R., Eaker, R. & Many, T., 2006; Khammanee T., 2014; Panich V., 2012).

## Methodology

This research aims to develop instructional strategies of teachers in small-sized schools to acquire scientific competencies of students through a professional learning community and to synthesize a teacher's instructional strategies. The scope of the study is schools under the Office of the Primary Educational Service Area in Phetchabun province. The study is conducted by using the practical action research.

Prior to entering the practical action research cycle, the principles of building a professional learning community is used to find a group of teachers who have the common intentions and goals to develop their own practice and to create a common practice agreement. There are four schools in the research scope. The research participants comprise of four school administrators, eight science teachers and ten students. At this stage, the researcher performs 3 main steps: 1) raising mutual awareness which is the need for collaborative efforts to improve students' learning, 2) surveying current situation to explore instructional practices for improving scientific competencies of co-research teachers and characteristics of the school's professional learning community, and 3) choosing a instructional approach that can be developed together among the participants in this research. The research instruments are in-depth interviews, observations about manners of teachers' instructional and student learning, and workshop training manual.

The phase of the practical action research cycle which includes two schools as the research scope, and two school administrators, six science teachers and thirty students as research participants. To achieve the aim of scientific competencies advancement, there are four primary steps which are 1) planning: teachers reflect on their thoughts about the link between their own learning and students' learning for scientific competency development based on their experience and perception. It is important to apply knowledge acquired from the workshop to obtain a meaning and approach of instructional, to brainstorm about instructional to build a solid understanding, and to compile practice methods by applying a comprehensive understanding of instructional into planning guidelines and activities, 2) acting: teachers organize learning in real situations and do various activities together, 3) observing: the researcher and teacher participants take the role of an observer of the teacher's instructional and activities to revamp it, and 4) reflecting: teacher participants reflect on their own learning and student participants reflect on teachers' instructional to evaluate the teacher's instructional results and to lead to planning in the next phrase by using two research instruments; reflective models according to the operational research cycle, and behavior observation learning forms to improve teacher scientific competency and student learning behavior.

Following to the new cooperatively revised plan, teachers repeatedly perform the cycle until the end of the research process. The research participants play roles at every stage of the research in each cycle regardless of the fact that researchers adhere to the idea of either Kemmis & McTaggart (Kemmis & McTaggart, 1988) which states that operational research requires changes in three areas, languages, activities and social relations. The changes are not able to be done separately. Criteria for completing the research process are: 1) teachers have significant changes in instructional behavior and have ability in instructional to develop students' science competencies in accordance with school contexts, 2) teachers agree that the

instructional process is satisfied, and 3) students adjust their learning behavior according to a common goal. Achieving all, it therefore considers the end of the research process.

At the end of the practical action research, the researcher withdraws from the area and allow the participants to continue the cycle of the research. During the time the researcher is in the area, the researcher turns themselves into an assistant who provide help and guidance for teachers' needs, and also synthesize information.

**Research Findings**

After the end of the reflection of the second cycle, the researcher and the participants including administrators and teachers discussed the changes in the behavioral learning of teachers in small-sized schools to develop scientific competencies of the students to evaluate whether the research objective was achieved or not. The mutual agreements were that 1) teachers underwent a behavioral change in instructional to develop scientific competencies in languages, activities and social relationships at both the individual and group level, and also enable to instructional in accordance with the context of a small-sized school, 2) teachers were satisfied with the implement of the instructional process, and 3) students experienced changes in learning behavior, scientific competencies and learning happiness which contribute to better academic achievement. Furthermore, learning behavior of teachers in small-sized school to improve learner's scientific competency enabled teachers to improve in thought-provoking skills by asking questions, communication skills, instructional skills, and a perspective of students' learning together with pride in their own abilities. With regards to the changes in the schools, it found that two professional learning communities were established which are an informal community of teachers and a community of teachers that they can have meetings regularly. The participants therefore agreed that the research objective was achieved. To visualize the changes, the researcher summarized the changes in instructional behavior of teachers in small-sized schools to improve students' scientific competencies in language, activity, and social relationships that take place throughout the research process in each cycle and the effects on students shown as in Table 1.

| Research cycle | Changes in learning behavior of teachers in small-sized schools to develop student scientific competencies. | Outcomes on students |
|---|---|---|
| **A period before entering the research cycle** | **1. Languages**<br>1.1 teaching according to a manual or a finished textbook<br>1.2 studying the indicators in a curriculum and study a content understandably<br>1.3 inquiring for teachers in learning management<br>1.4 evaluating students' learning outcomes at the end of the semester<br><br>**2. Activities**<br>2.1 preparing before organizing learning<br>- studying the indicators in the course<br>- preparing a instructional plan from a manual or a ready-made textbook.<br>2.2 learning activities to develop the scientific competency of students<br>- assigning students to work in groups<br>- emphasizing on the joint learning summary<br>2.3 using quizzes to evaluate students<br><br>**3. Social relations**<br>3.1 relationships that support teachers' instructional practices<br>- role relationships<br>- interdependent relationships<br>3.2 relationships that reflect the characteristics of a professional learning community<br>- informal exchanging information<br>- pursuing the common goals | **Learning behavior**<br>1. lacking the interest in learning<br>2. lacking enthusiasm for studying<br>3. lacking effort in learning<br><br>**Scientific competency**<br>1. lacking understanding of the nature of science.<br>2. being unable to identify a problem that can be scientifically verified.<br>3. being unable to identify the source of the problem.<br>4. being unable to interpret the evidence of testimony |
| **The phase of action in the operational research cycle** | **1. Language changes**<br>1.1 understanding of scientific competencies<br>- students can identify problems that can be scientifically examined by themselves.<br>- students can create a body of knowledge by themselves.<br>- using discussions and expressing opinion<br>- applying scientific knowledge to create explanations<br><br>1.2 Understanding instructional to develop scientific competencies | **Learning behavior**<br>1. having eager to study<br>2. good preparing to present their own works or pieces<br>3. developing teamwork skills<br>4. acquiring problem solving skills<br><br>**Scientific competency**<br>1. Showing a greater understanding of the nature of science<br>2. Being able to |

| Research cycle | Changes in learning behavior of teachers in small-sized schools to develop student scientific competencies. | Outcomes on students |
|---|---|---|
| | - understanding teaching process by means of scientific inquiry<br>- understanding the role of teachers in instructional for developing scientific competencies<br>- organizing self-inspection activities for students to investigate<br>- organizing discussion and sharing-opinion activities<br>- highlighting on the process of searching for and acquiring knowledge<br><br>1.3 Feelings to instructional to develop scientific competencies<br>- gaining satisfaction with learning management<br>1.4 Languages used in instructional<br>- Focusing on understanding the role of students in learning.<br>- Asking open-ended questions<br>- expressing relationship Closeness with Students<br>- Guiding learning for students<br><br>**2. Activity changes**<br>2.1 Preparing to teach<br>- learning the indicators of the Science Competency Link course in detail<br>- Designing a instructional for students to explore and examine themselves.<br>2.2 Learning activities to develop the scientific competency of learners<br>- Using daily-life situations to encourage students to think and design their learning to build their own knowledge.<br>- Using thought-provoking questions<br>- Arranging activities for students to identify issues and present their ideas<br>- Arranging activities for students to connect scientific knowledge with real life<br>2.3 Evaluate learning outcomes<br>- making authentic assessment<br>- Evaluating workpieces<br><br>**3. Social relation changes**<br>**3.1 Relationships that affect the practice of teachers learning** | identify problems that can be scientifically verified by themselves<br>3. Evaluating and designing the process of scientific knowledge acquisition on their own<br>4. Interpreting the meaning from the testimony.<br><br>**Learning happiness**<br>1. Having more fun and happiness with studying<br>2. Having more interactive conversations between teachers and students |

| Research cycle | Changes in learning behavior of teachers in small-sized schools to develop student scientific competencies. | Outcomes on students |
|---|---|---|
| | 1) Relationship between the administrators and the teachers<br>- the administrators observed teacher's teaching.<br>- the administrators inquired about the development of teacher competencies in the science of learning.<br>- the administrators inquired about problems and obstacles in the work.<br>- the administrators and teachers had a more casual relationship<br>2) Relationship between the participants and the researcher<br>- the participants and the researcher had a more casual relationship<br>- the participants consulted the researcher one-on-one in informal ways<br><br>**3.2 Relationships that reflect the characteristics of a professional learning community.**<br>1) the informal community<br>- discussing about instructional practices to develop learners' scientific competencies.<br>- Listening to the problem and helping solve it<br>- Sharing experiences and knowledge about learning with other teachers<br>2) the community of teachers that they can have meetings regularly.<br>- consulting about writing a learning management plan.<br>- arranging an appointment for presenting the instructional plan to exchange ideas.<br>- observing teaching one another<br>3) Communities of teachers between both schools<br>- exchanging ideas through both LINE and Facebook groups.<br>- discussing about instructional and general matters<br>- Using words that show friendliness rather than comparison or competition.<br>4) Supporting the learning community<br>- The researcher inquired about the | |

| Research cycle | Changes in learning behavior of teachers in small-sized schools to develop student scientific competencies. | Outcomes on students |
|---|---|---|
| | teacher instructional through Line groups.<br>- Reducing the unnecessary workload of co-research teachers<br><br>**4. Other changes**<br>- Having a good perspective on students' learning<br>- Feeling proud of ability development | |

Table 1. summarizes the changes in instructional behavior of teachers in small-sized schools to develop learner's scientific competencies and outcomes on students.

According to the data synthesis of the changes in instructional behavior of teachers in small-sized schools to develop scientific competencies of students in the two schools, the researcher proposes three instructional strategies of teachers to develop students' scientific competencies; 1) questing for knowledge strategies: teachers must study the details of the indicators in the science competency link course, design a instructional that focuses on students to search, survey, and validate knowledge by themselves by using everyday situation to encourage students to think and design activities, and arrange activities that allow students to identify issues, to connect scientific knowledge with real life, and to present their ideas, 2) thought-provoking strategies: teachers must use questions to stimulate students' interest. This helps strengthen their thinking ability by practicing thinking for answers and reasoning and educating themselves, and 3) daily-life-situation strategies: teachers must create situations related to daily life at individual, local, national and global levels.

## Conclusions and Discussions

The research found the changes in teachers' instructional behavior to develop the original learner's scientific competency towards learning management suitable for the school contexts. The changes took place in three main areas, languages, activities and social relations. Moreover, professional Learning Communities were set up inside the schools. According to the results of the data synthesis, the researcher proposed three instructional strategies of teachers to develop students' scientific competencies which were questing for knowledge strategies, thought-provoking strategies, and daily-life-situation strategies. The professional learning communities are operated under the participation of the school administrators, the teachers, the students and the researcher including those involved in teachers' instructional. This offered opportunities for school administrators and teachers to perceive what happens in current practices at the individual and group level. This also brought about more rational and sustainable problem solving or practice improvement in agreement with the concept of Sergiovanni (Sergiovanni, 1994) which mentions that a professional learning community is a place for "interactions" to reduce the "isolation" of school teachers to improve student performance or school's academic works. Hence, a professional learning community to develop instructional is one of the methods that stimulates teachers to change, and is essential for learning in the 21st century (Darling-Hammond; et al. 1999: 93; Leiberman, 2000: 225).

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# *The Development of Teacher Trainees' Science Instructional by Active Learning Competencies through Lesson Study*

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**Abstract**
The research objective was to develop science instructional competencies by active learning of teacher trainees through lesson study. The methodology of practical action research was implemented in this study. The research was conducted in two phases in accordance with the four cycles of practical action research framework. The target participants were thirty fifth-year students, during their internship of teaching practicum, in the Department of General Science, the Faculty of Education, Phetchabun Rajabhat University in Thailand. The research instruments consisted observation form in regard to instruction and evaluation forms in regard to science instructional by active learning competencies. Analyze qualitative data through content analysis. And find the sum of the student teacher proactive science instructional competency scores then compare the score difference before and after the lesson study. The research findings revealed that the intern students during their teaching practicum demonstrated the potential in science instructional by active learning competencies in three aspects: the aspect of instructional design; the aspect of activities instructional; and the aspect of assessment and evaluation related to instructional. The positive developments were also observed in all aspects and indicators.

Keywords: Science Instructional by Active Learning, Lesson Study, Teacher Trainees

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## Introduction

The 21st century is an age of information and changes in both economic and social perspectives as well as education systems. Education systems still have many problems including educational disparities in educational opportunities and equality which is required to be adjusted in accordance with such changes. Teaching methods should be adaptable to the changing world, so it is necessary to constantly produce and develop teachers to support the changes. Student-oriented education creates students' characteristics consistent with the National Education Plan, the National Economic and Social Development Plan along with the course content or curriculum in the teaching profession should be modified to be up-to-date in accordance with dynamic global and Thai social contexts.

Science is a matter of learning about nature by using the process of observing, exploring, examining and experimenting with natural phenomena and organizing principles, concepts and theories. Therefore, teaching science aims to make students the most self-discovery. Teachers can execute instructions in a variety of ways such as project–based learning, inquiry–based learning, and problem–based learning. Each of the methods focuses on teaching learners to practice, which will increase knowledge and skills according to Simpson (1972) who states that practical skills can be developed with practices, and good and correct practices lead to expertise and persistence. Instruction can be executed in different ways including active learning that focuses on practical learning, and higher-order thinking highlighting on analysis, synthesis and evaluation which enables students to be not just listeners, but also active learners who are required to read, write, and ask questions to make discussion. The methods also take into account students' prior knowledge and needs as a priority. Science courses can be conduct by using those methods as stated by Chumnankit, B. (2006, pp.1-7) mentioning that science instructional by active learning is a teaching method in which students are demanded to find content to generate knowledge by speaking, writing, reading, reflecting or asking questions, which are valuable, exciting, fun, and challenging. Students can learn according to their own abilities and need can apply knowledge to daily life.

The Researcher is an instructor for a Bachelor of Education General Science Program, Faculty of Education, Phetchabun Rajabhat University, teaching in the course in which fifth-year teacher trainees are requisite to practice teaching in an educational institution for one year as a teacher trainee. The researcher as a teacher trainee's supervisor has found the problems. For instance, most teacher trainees use a lecture method, lack ability to conduct science learning that gives their learners profound knowledge and understanding of the concepts taught, cannot create learning activities that enable their learners to generate knowledge on their own through advanced thinking, and have inability to generate correct measurement and evaluation tools for science instructional.

Lesson study originated in Japan (Isoda, 2007; Saito, 2012). It has the characteristics of effective professional development: teachers are actively involved in both the process as the products, the focus is on content and specifically on teacher trainees learning this content, it takes place over a longer time span, and there is coherence between the activities (Garet et al., 2001, Penuel et al., 2007). In Lesson study, teachers in collaboration select a topic and plan and prepare a lesson (called a research

lesson), one teacher enacts the research lesson and the others observe the teacher trainees in class, and finally teachers discuss their observations (Lewis et al., 2006, Isoda et al., 2007, Stepanek et al., 2007). The implementation of the cycle consists of planning, seeing, and reflecting. This research is interested in applying concepts, principles and processes of lesson study to the development in science instructional competencies by active learning of teacher trainees in three areas: an instructional design, instructional activities, and assessment and evaluation related to instructional.

## Methodology

This research aims to develop science instructional competencies by active learning of teacher trainees through lesson study. The target group is 30 teacher trainees who study fifth-year General Science Program, Faculty of Education Phetchabun Rajabhat University in Thailand. This research is a Practical Action Research of which process consists of two stages and four practical action research cycles. The one stage is before lesson study which comprises of two cycles. The first cycle is the study of analysis and synthesis of conceptual framework and processes of lesson study. The second cycle is the creation and enhancement of research tools. The other stage is during lesson study which also includes two cycles. The third cycle is an active science instructional practice through lesson study of teacher trainees. The fourth cycle is a science instructional by active learning through lesson study, while the researcher acts as a consultant and motivator who set issues and direct them to think, act, see, and reflect. Teacher trainees can develop their science instructional by active learning which can utilize in doing practices in a classroom, develop self-improvement, collect data for producing an appropriate lesson study process. To demonstrate the research processes, Table 1 is provided.

| Practical Action Research cycle | Phase 1 before lesson study | | Phase 2 during lesson study | |
|---|---|---|---|---|
| | Cycle 1: Study, analyze, synthesis, conceptual framework | Cycle 2: Build and develop research tools | Cycle 3: Practice science instructional by active learning through lesson study | Cycle 4: Practice science instructional by active learning through lesson study |
| Planning : P | The researcher<br>- Studying basic information<br>- Setting a conceptual framework<br>- Planning research | The researcher<br>- Determining the indicators of the science instructional by active learning of teacher trainees<br>- Building and developing research tools | - setting the roles of the researcher and teacher trainees<br>- The researcher made arrangements to create understanding with teacher trainees | - setting the roles of the researcher and teacher trainees |
| Acting : A | The researcher<br>- synthesize information | The researcher participate in the orientation | - The researchers and teacher trainees | - The researcher and teacher trainees |

| Practical Action Research cycle | Phase 1 before lesson study | | Phase 2 during lesson study | |
|---|---|---|---|---|
| | Cycle 1: Study, analyze, synthesis, conceptual framework | Cycle 2: Build and develop research tools | Cycle 3: Practice science instructional by active learning through lesson study | Cycle 4: Practice science instructional by active learning through lesson study |
| | related to the development of science instructional by active learning of teacher trainees through lesson study | class to study the contexts of science instructional by active learning | create mutual understanding<br>- The researcher and teacher trainees collaboratively implement science instructional by active learning through lesson study (Lesson study) (Plan – See – Reflect) | collaboratively implement science instructional by active learning through lesson study (Lesson study) (Plan – See – Reflect) |
| Observing : O | The professionals examine the process of developing the science instructional by active learning through lesson study | The research<br>- Synthesizing data from student attendance and an orientation class assessing the science instructional by active learning of teacher trainees | - Collecting teacher trainees' performance, the results on both teacher trainees and students<br>- assessing the science instructional by active learning of teacher trainees after implementing lesson study for the first time | - Collecting teacher trainees' performance, the results on both teacher trainees and students<br>- assessing the science instructional by active learning of teacher trainees after implementing lesson study for the second time |
| Reflecting: R | Reflecting, improving, and revising for the first time | Reflecting, improving, and revising for the second time | Reflecting, improving, and revising for the third time | - Reflecting, improving, and revising for the fourth time<br>- Presenting research results |

Table 1. Conducting research according to the Practical Action Research Cycle

Research instruments are instructional observation forms and science instructional by active learning evaluation forms. They have the characteristic of rubrics scoring and contains lists of behaviors based on three indicators which are eight lists of the

instructional design, six lists of the operations of instructional activities, and three lists of the measurement and evaluation of instructional. The total lists are 17 resulting in 51 as the full score. The research conducts by an assessment by the researcher collecting evidence data about science instructional by active learning of teacher trainees from various sources which are 1) instructional plans for teacher trainees 2) recording teaching in classrooms 3) observing instructional 4) reflecting on instructional results through lesson study to analyze and give scores corresponding to performance levels. The performance levels are divided into three – low, moderate, and high (An overall score fewer than 17 is low. between 18 and 34 is moderate, and between 35 - 51 is high). After that, the research compares the difference in scores between before and after lesson study together with levels of science instructional by active learning and conducts a qualitative-data analysis.

**Research Findings**

The results of analysis of the competency of science instructional by active learning between before and after studying the lesson study shows that all students and teachers had higher competency scores in science instructional by active learning at one level. That is to say, 24 students increased their scores from a low to medium level and 6 students improved from a medium to high level, as detailed in Table 2.

| Teacher trainees no. | Before lesson study | | After lesson study | | Changes in the competency level of science instructional by active learning |
|---|---|---|---|---|---|
| | Total score | Interpret results | Total score | Interpret results | |
| Sci1 | 13 | low | 33 | moderate | Increased |
| Sci2 | 12 | low | 29 | moderate | Increased |
| Sci3 | 15 | low | 33 | moderate | Increased |
| Sci4 | 27 | moderate | 46 | High | Increased |
| Sci5 | 16 | low | 34 | moderate | Increased |
| Sci6 | 14 | low | 33 | moderate | Increased |
| Sci7 | 30 | moderate | 45 | High | Increased |
| Sci8 | 13 | low | 29 | moderate | Increased |
| Sci9 | 13 | low | 32 | moderate | Increased |
| Sci10 | 12 | low | 30 | moderate | Increased |
| Sci 11 | 32 | moderate | 46 | High | Increased |
| Sci12 | 14 | low | 32 | moderate | Increased |
| Sci13 | 12 | low | 32 | moderate | Increased |
| Sci14 | 15 | low | 33 | moderate | Increased |
| Sci15 | 32 | moderate | 48 | High | Increased |
| Sci16 | 16 | low | 34 | moderate | Increased |
| Sci17 | 13 | low | 33 | moderate | Increased |
| Sci18 | 12 | low | 28 | moderate | Increased |
| Sci19 | 15 | low | 32 | moderate | Increased |
| Sci20 | 16 | low | 33 | moderate | Increased |
| Sci21 | 30 | moderate | 46 | High | Increased |
| Sci22 | 15 | low | 30 | moderate | Increased |
| Sci23 | 13 | low | 29 | moderate | Increased |
| Sci24 | 11 | low | 29 | moderate | Increased |

| Teacher trainees no. | Before lesson study | | After lesson study | | Changes in the competency level of science instructional by active learning |
|---|---|---|---|---|---|
| | Total score | Interpret results | Total score | Interpret results | |
| Sci25 | 13 | low | 33 | moderate | Increased |
| Sci26 | 31 | moderate | 48 | High | Increased |
| Sci27 | 16 | low | 32 | moderate | Increased |
| Sci28 | 14 | low | 31 | moderate | Increased |
| Sci29 | 13 | low | 31 | moderate | Increased |
| Sci30 | 13 | low | 29 | moderate | Increased |

Table 2. shows the results of the analysis of the science instructional by active learning performance of teacher trainees through lesson study of individual teacher trainees.

From studying the class and observing the instructional of teacher trainees, competencies in designing instructional were founded that the instructional plan of the teacher trainees has a comprehensive set of interrelated elements, learning activities are aligned with the indicators, objectives and content, and learning activities successfully promoted the thinking process of students. Likewise, competencies in organizing instructional activities shows that teacher trainees could use instructional methods to promote students to think, solve problems, and focus on the improvement of advanced thinking skills. The methods that were conducted include STEM instructional methods, problem-based learning methods. Self-practicing learning activities provided many different materials, equipment, media, technology and learning resources suitable for the content which enabled students to use the learning resources themselves. Apart from this, the competencies of the measurement and evaluation in instructional were found that the measurements and evaluations on the indicators/learning outcomes in terms of knowledge, skills and attributes were under real conditions

From the reflection of the instructional results through the lesson study of teacher trainees, it indicated that studying and seeing lesson study contributed teacher trainees to recognize actual operational conditions and to realize the consequences of applying the implement of science instructional by active learning. They also had the opportunity to discuss and share their knowledge gained from hands-on teaching experience and observation (teacher trainees no. 1, 6, 14, 17, 28). Reflections enables them to review which factors are useful or useless for instructional including what should be improved (teacher trainees no. 3, 5, 13, 15, 25, 29). Lesson study caused them to adjust their teaching behavior which gave rise to the changes in students. This made them discern the importance and gain confidence in lesson study, and demand to participate in the next class (teacher trainees no. 4, 7, 15, 26).

## Conclusions and Discussions

The results of the research showed that all teacher trainees had higher competency scores in science instructional by active learning at one level after conducting lesson study. Since lesson study was a long-term continuous operating cycle, teacher trainees had the opportunity to use the study through repeated lessons. Studying and seeing lesson study in the teaching stage brough about teacher trainees to recognize actual operational conditions and to realize the consequences of applying the implement of

science instructional by active learning. They also had the opportunity to discuss and share their knowledge gained from hands-on teaching experience and observation. In the reflection stage, they could review which factors are useful or useless for learning management including what should be improved. This is aligned with Triwaranyu. C. (2013) who states that the most important stages in implementing lesson study are the stages of teaching and seeing and reflecting seeing that they encourage teachers to create perspectives, concepts, body of knowledge and understanding of instructional, and to solve teacher instructional problems according to students' learning.

Furthermore, lesson study enables teacher trainees who in the same grade to have a close relationship and collaboration, and to share and exchange knowledge related to work experience frequently. The study of Wasayangkull. P. (2014) found that lesson study is a cooperative operation of the classroom group as a professional learning community, PLC, in which teachers work together by sharing and exchanging their knowledge and experience along with educational resources, and teachers also promote a positive attitude towards working and a concept of teacher development with one another.

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# *Morality Analysis of Students, according to Kolhberg's and Lickona's Theory*

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**Abstract**
The study aims to find out the level of moral development of students according to Kohlberg and Lickona theory, and it was done at State Junior High School (JHS) 29 and State Junior High School (JHS) 9. The design of the research is descriptive qualitative research design, and the data collection is done through observation and in-depth interviews. In-depth interviews were conducted with students as the informants, teachers, and the Principal. The instruments of this research are interview guidance which was adopted from Kohlberg's theory and Lickona's theory. Both research instruments have been validated by an expert in the field of psychological research methods. Data validity is done by triangulation techniques (sources, data collection techniques, and time). The findings of the study are that the moral development level of students functions at a conventional level, with a higher score being in State Senior High School 9 students. The level of highest moral development (post-conventional), also appears more in State Senior High School 9 students. In general, the character and moral behaviour of students in both State Senior High School is classified as good with good moral knowledge and moral feeling (attitude) in the process of developing. A conducive school climate is an absolute prerequisite for achieving optimal moral development level. The method of teaching moral values and character in the classroom needs to be optimized by carrying out every single stage of the scientific approach in the 2013 Curriculum.

Keywords: Morality Analysis, Kohlberg, Lickona, Moral Development

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## Introduction

The portrait of Indonesian teenagers is littered with pornography-related cases such as free sex, abortion, and exposure to HIV/AIDS. It indicates the moral decline of adolescents. A survey conducted by the Indonesian Child Protection Committee (KPAI) and the Ministry of Health (Kemenkes) in October 2013 revealed that around 62.7% of adolescents in Indonesia had had sex outside of marriage. 20% of the 94,270 women who experienced out-of-wedlock pregnancy also came from adolescents, and 21% of them had had abortions. Then in cases of HIV infection, within three months, from 10,203 cases, 30% of the sufferers were teenagers.

For the Bekasi West Java area, the most recorded cases in criminal law in 2016 were juvenile delinquency cases in the form of drug use consisting of marijuana leaves, crystal methamphetamine, and ecstasy (Bekasi District Court, 2018), the Whatsapp (WA) group which consists of Junior high school student with the name "All Star" where the content contains pornography and violence (KPAD, 2018). On December 1, 2018, four junior high school students were involved in attacking other students in the Medan Satria Bekasi area (Tempo, 2019). The issue of morality among Indonesian students has drawn attention and concerns to the Indonesian public and government, parents, teachers/educators, and clergy. More immoral and criminal acts are committed by junior high school students. Kohlberg developed a theory of moral development and deepened the structure of thought processes that are seen in moral reasoning, which develops gradually [1;2]. Moral reasoning competence is a person's ability to use specific ways to explain his choices, why to do something or not do something. Moral development means changes in the way children think about moral problems, their attitudes towards lawlessness and their behaviour when facing moral problems (Academia Edu, 2019). Meanwhile, according to Lickona, character contains three interrelated components and influence: moral knowledge, moral feelings, and moral behaviour [3].

Even though the 2013 education curriculum in schools prioritizes character education and uses a scientific method/approach, a lot of juvenile delinquency cases still occured. It is what motivates the author to conduct research on the morality of students at two junior high schools in Bekasi city and to analyze the morality of students of both schools. The research title is "Analysis of Student Morality according to Kohlberg and Lickona's Theory at SMP Negeri 29 and 9 Bekasi". The problems that will be answered in this study are: a) How is the picture of morality (moral level development) of students of State JHS 29 and State JHS 9 based to Kohlberg and Lickona's theory? and b) What are the implications of student morality in the implementation of moral and character learning in schools? The research objectives are: a) to know in-depth the description of morality (moral development) of students at State JHS 29 and State JHS 9 according to the theory of Kohlberg and Lickona and b) to find out in-depth the implications of student morality in the implementation of moral and character learning at State JHS 29 and State JHS 9.

## Literature Review

The term moral is often interpreted concerning moral or ethical attitudes and behaviour. Moral refers to morals by social regulations or regarding laws or customs that govern behaviour [4]. Meanwhile, according to Hurlock defines moral behaviour

as behaviour by the moral code of a social group which is controlled by moral concepts or rules of behaviour that have become habits for members of culture. From the above definitions, the authors conclude about morals as matters related to good-bad or right-wrong things and a person's ability to judge or distinguish good-bad or true-wrong qualities above, by customs/norms, social and existing laws. The division of morals is moral as individual values (honesty, discipline, and conscience) and moral as social values (empathy, respect for others, self-control, and justice) [5]. Borba stated that there are three moral values which are referred to as the moral core, namely: empathy, conscience, and self-control [6].

Another term closely related to morals is character. The term moral development in literature is also often used interchangeably with character education. Character is an appropriate assimilation of all the virtues identified by religious traditions, literary stories, sages, and people of common sense throughout history [7]. Zionts describes character education as a conscious effort by schools, families and society to help young people understand, care for and act according to core ethical values [8]. A professor and developmental psychologist from Harvard University named Lawrence Kohlberg, said that moral development is a change in the way children think about moral issues, their attitudes towards lawlessness and their behaviour when facing moral problems, such as honesty, obedience, responsibility and punishment [9]. The moral development of a child is closely related to the way he thinks. It means that the better the thinking ability of a child, the more likely the child is to have good moral development. Children with good moral development can understand moral concepts well. However, Kohlberg added that an intelligent child does not necessarily have good moral development and moral behaviour, even though he understands the moral concept that should be.

Colby and Kohlberg stated that moral reasoning is related to moral behaviour, even staying that moral behaviour can only be seen based on moral reasoning [10]. Several factors shape and stimulate the development of a person's moral reasoning, namely: social environment, role-taking opportunities, cognitive development, and socio-cognitive conflict [11]. Several other studies have found factors that influence the development of moral reasoning, namely: social environment (parents, friendship, education, mass media, and culture), cognitive development, opportunities for role transfer accompanied by empathy, socio-cognitive, religious considerations, gender, and biological conditions (puberty). In moral learning, there are two essential things to understand, namely moral judgment (consideration) and content of the moral judgment. A person's choice of either schoolwork or play is an example of the content of moral judgment. Meanwhile, the reason someone determines the available alternatives is a moral consideration, for example, why a child completes homework, in order to avoid sanctions from the teacher.

Kohlberg's theory provides ideas for structures of moral reasoning that become more sophisticated as children develop. How children respect the rules and how their understanding of the nature of the rules changes through the different stages. Moral judgment is, therefore, a direct consequence of cognitive development where each stage leads to a specific type of behaviour. Piaget found that young children tend to conceptualize morals in terms of obedience to adults, while older child tends to conceptualize in terms of cooperation with peers [12]. Through research, Kohlberg shows that moral reasoning develops through six stages that can be identified and

classified into three levels, namely: pre-conventional, conventional, and post-conventional.

In this study, the subjects to be studied were junior high school students in each grades, ranging from 12-16 years old. The age range of adolescence is a life span of around 13 years to the early twenties. Physically, adolescents are no longer children, but also have not become independent adults. Puberty is the most obvious sign of the onset of adolescence characterized by physical changes in primary sex characteristics.

Based on Piaget's theory of development, adolescence is in the stage of formal operational thinking just like adults. However, in reality, not many teenagers think like adults. Adolescent cognitive development is less visible than physical development. However, there are significant changes in the way youth think about themselves, about their peers and relationships, and the world around them. Another important aspect of adolescent cognitive development is the understanding of "right" and "wrong." Based on Kohlberg's theory, adolescents and adults can be found to be at all three levels of moral development (described in the previous section). A naughty teenager tends to have moral reasoning that is at a pre-conventional (low) level. Children's behaviour at the first level of moral development (pre-conventional), is governed by the consequences of these behaviours [13]. At the second level (conventional), children's behaviour is regulated by confirming the norms of community behaviour. At the third level (post-conventional), a person's behaviour is governed by individual-decided moral principles, which may conflict with prevailing social norms.

The development of personality and social relationships during adolescence is related to a constant search for personal identity. The psychosocial crisis faced at this time is called Erikson as the stage of identity versus role confusion. At this stage, adolescents choose from many available choices, values in life and beliefs such as political issues, career choices, and marriage. From the various options, a consistent identity must be found.

Lickona's theory tells about three interrelated and influencing components of character: moral knowledge, moral feelings, and moral behavior. Good character consists of: good knowledge, good desires, and good behavior. The habituations of thinking, behaving, and acting are important things in shaping and living the maturity of a moral life.

## Method

This research is a qualitative descriptive study conducted to explore and understand in-depth the description of morality (level of moral development) of students at State JHS 29 and State JHS 9 according to Kohlberg's theory and the implications of student morality on the implementation of learning and student learning outcomes at State JHS 29 and State JHS 9. Data collection conducted through teaching observation, interviews, and document study. The research instruments used were observation sheet, interview guide sheets and document checklists. The observation sheet consists of seven teaching aspects, namely: a) opening; b) learning; c) method; d) personality; e) tools/media; f) learning; g) attitude/ behavior. The questions on the moral development interview guideline are classified into four sections, namely:

moral dilemma #1 up to moral dilemma #4 [14]. For questions in the moral dilemma section, #1 - #3 consists of 11 questions, while in the moral dilemma #4 consists of 8 questions. So the total number of moral dilemma interview questions is forty-one questions.

Other instrument is Moral Analysis Interview Guide Sheet aimed to obtain a qualitative description of participants' morality based on Lickona's theory, which dissects the characters into three components: moral knowing, moral feeling, and moral action. The researchers compiled five examples of negative moral behavior, namely: 1. Cheating behavior (cheating on tests), 2. Mocking/degrading friends, 3. Watching pornographic content, 4. Lying, and 5. Laziness. These five negative moral behaviors were drawn to the surface based on the researcher's interviews with teachers of the both JHSs.

The respondents of this study were junior high school students from grade 7 to grade 9 who were selected purposively, while the students selected from both schools were six students. This research intensively began in February 2019 and ended in August 2019. The research locations are located at State JHS 29 Cikunir, Bekasi City and SMP 9 Jati Asih Bekasi City. Data collection was also carried out in two other places, the Bekasi City P3A (Women's Empowerment and Child Protection) office and the Bekasi Ministry of Religion's Christian Community Service office. To obtain valid data, the researcher checks the validity of the research data by a) extending observations; 2) persistence of observation; c) use reference materials; d) triangulation (of sources, data collection, and of time). After the data collected, the next step is to analyze them with qualitative data analysis techniques (collecting data, presenting data, reducing data and drawing conclusions).

## Result and Discussion

This section describes the results of the research (findings and conclusions) in the two schools in Bekasi city: State JHS 29 and State JHS 9, which is followed by a discussion of these results. The results obtained from this study are described as follows.

## A. Results

### 1. The Morality of Students at State JHS 29 Cikunir

### a. Level of Moral Development (based on Kohlberg's theory)

| Students Initial | Moral Development Stage | | | | Stage Frequency (%) |
|---|---|---|---|---|---|
| | Problem 'Moral Dilemma' | | | | |
| | #1 | #2 | #3 | #4 | Stage 3 = 4 or 33.33%<br>Stage 4 = 6 or 50%<br>Stage 5 = 2 or 16.67%<br>Stage 6 = 0 or 0% |
| Nat | 3 | 3 | 4 | 4 | |
| Gus | 3 | 3 | 4 | 4 | |
| Eje | 5 | 5 | 4 | 4 | |

**Information:**

3 - conventional (interpersonal harmony)
4 - conventional (law and order orientation)
5 - post-conventional (social contracts and personal rights)
6 - post-conventional (universal principles)

**Table 1.Recapitulation of Moral Development Stage for State JHS 29 Students**

### b. Analysis of Moral Character and Behavior (based on Lickona's theory)

Below is presented a table of recapitulation of the rating score for each of the moral behaviour of each informant. The moral behaviour (moral action) is 1) cheating behaviour during the test, 2) ridiculing/demeaning friends, 3) watching pornographic content, 4) lying, and 5) laziness. The rating score is directly proportional (positive) to behaviour number 4 (lying) and 5 (laziness). Meanwhile, specific rating scores are inversely proportional, namely, 1) cheating behaviour during the test, 2) ridiculing/demeaning friends, and 3) watching pornographic content. The following is the description.

| Moral Behavior No. 1, 2, and 3 | Initial score | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Final score | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |

| Moral Behavior | State JHS 29 | | | Average |
|---|---|---|---|---|
| | Nat | Gus | Eje | |
| 1. Not cheating during the test | 6 | 7 | 8 | 7 |
| 2. Do not mock /ridicule friends | 9 | 10 | 6 | 8,33 |
| 3. Not tempted to watch pornography | 8 | 10 | 9 | 9 |
| 4. Commitment to speak honestly/ truthfully | 8 | 4 | 9 | 7 |
| 5. Diligent/responsible for the task | 5 | 8 | 8 | 7 |
| Total | 36 | 39 | 40 | 38,33 |

**Table 2.Recapitulation of Moral Behavior Rating for Students at State JHS 29**

## 2. The Morality of Students at State JHS 9 Jati Asih

### a. Level of Moral Development (based on Kohlberg's theory)

| Students initials | Moral Development Stage | | | | Stage Frequency (%) |
|---|---|---|---|---|---|
| | Problem 'Moral Dilemma' | | | | |
| | #1 | #2 | #3 | #4 | Stage 3 = 2 or 16.67% |
| Ala | 3 | 5 | 4 | 5 | Stage 4 = 4 or 33.33% |
| Bel | 3 | 5 | 4 | 5 | Stage 5 = 5 or 41.67% |
| Sur | 4 | 5 | 4 | 6 | Stage 6 = 1 or 8.33% |

**Information:**

3 - conventional (interpersonal harmony)
4 - conventional (law and order orientation)
5 - post-conventional (social contracts and personal rights)
6 - post-conventional (universal principles)

**Table 3.Recapitulation of Moral Development Levels for Students at State JHS 9**

### b. Analysis of Moral Character and Behavior (based on Lickona's theory)

| | Moral Behavior | State JHS 9 | | | Everage |
|---|---|---|---|---|---|
| | | Ala | Bel | Sur | |
| 1. | Not cheating during the test | 7 | 9 | 2 | 6 |
| 2. | Do not mock/ridicule friends | 7 | 6 | 6 | 6,33 |
| 3. | Not tempted to watch pornography | 9 | 10 | 8 | 9 |
| 4. | Commitment to speak honestly/truthfully | 8 | 6 | 10 | 8 |
| 5. | Diligent/responsible for the task | 8,7 | 7 | 8,5 | 8,07 |
| | Total | 39,7 | 38 | 34,5 | 37,4 |

**Table 4. Recapitulation of Moral Behavior Rating for Students at State JHS 9**

The intermediate stage of moral development of State JHS 29 informant students was 3.83, and the informant students of State JHS 9 were 4.42. Both these scores point to the conventional level of moral development. This result is quite suitable for children their age. For the post-conventional level of moral development (the highest level), the scores for State JHS 9 informant students were higher than State JHS 29 informant students (see table 4.1), namely: 50% (State JHS 9) and 16.67% (State JHS 29).

The average score of all moral behaviour studied, student informants at State JHS 29 were higher than State JHS 9. For the respective scores of moral behaviour studied, it was found that: a) Non-cheating behaviour during the test was higher for informant students at State JHS 29; b) Behavior that does not ridicule/demean friends is higher in State JHS 29 informants; c) The behaviour of not being tempted to watch pornographic content was the same between students at both SMPNs; d) Commitment to always speak honestly and truthfully is higher for student informants at State JHS 9, and e) The attitude of being diligent/responsible on assignments is higher in State JHS 9 informants.

### 3. Student Morality of State JHS 29 Cikunir (based on interviews with student informants, counselling teachers, and school principals)

One of the problems of moral attitude and behaviour in schools is saying harsh words (bastard or animal naming). Other immoral behaviours are friends' bullying (threatening), calling on teachers harshly, taunting friends, disturbing people, disrespecting to teachers/staff, destroying school facilities (benches, desks), smoking, cheating, skipping classes, coming to school late, teasing parents' names, joining street's brawls, fighting inside school, and drinking liquor. According to the informants, youth morality is shaped by family, association with friends, teachers, and the environment. The benchmark for judging something good or bad, is to consider whether the actions benefit others; have good intentions; love for peace; have attitude to follow God's commands or parents' advice, and his/her own conscience.

This school places attitudes, behaviour, and character as the main things in the process of achieving educational goals. Moral values that give priority to students are politeness, mutual respect, responsibility, honesty, discipline, and mutual assistance. The school is committed to always improving and improving student morality by making efforts to revise student rules and school work programs. As a school with the title "Child-Friendly School", the school strives to keep up with the era dynamics and students' needs. School shows efforts to appreciate the moral and character development of children through the provision of extracurricular activities. Permanent and honorary teachers are actively involved in extracurricular activities in schools (permanent teachers as coaches, honorary teachers from outside schools as trainers). Teachers also act as motivators, resource persons, and assistants for student activities at school. When the habituation program is run, all teachers participate in assisting/ guiding.

### 4. Student Morality of State JHS 9 Jati Asih (based on interviews with student informants, counselling teachers, religion teachers, and school principals)

Some of the students' moral behaviour problems include: taking drugs (pills) at school, stealing cell phones, smoking in the school environment, running away from school/leaving class during class hours, speaking the foul language, disrespecting/ verbally abusing teachers, bullying, and favouritism between friends.

Regarding the exemplary of the teachers, all student informants thought that the teachers gave good examples (role models) to students, were kind and friendly, and did not discriminate, even though it was not one hundred percent. The problem is that a few teachers who have not shown that good role model have been used as a reference for individual students to justify their improper behaviour. According to the student informants, the factors that play a role in the moral formation of adolescents are the Bible, prayer, religion, one-self (a strong desire to behave appropriately or not), parents, family (harmonious or broken), friends, and the quality of someone's relationship with the environment. The standard to judge a good and bad deed is based on religious values or teachings, not from the men's opinion alone.

## B. Discussion

The findings regarding the level of moral development of Christian students as research informants are higher in State JHS 9 than State JHS 29, and further research can be carried out to see the significance of the differences by increasing the number of research subjects (informants/samples). The level of moral development of student informants in the two schools that functioned at the conventional level was generally considered quite good. That is, referring to Kohlberg's theory, those whose moral development is at a conventional level can adjust their behaviour based to the expectations of the norms in their environment, such as family, school, or community norms (A. Colby & L. Kohlberg) [15]. Attention is also given to obeying the law and fulfilling obligations to create order. The ability to develop good morals, which is based on the ability of mature moral judgment, becomes the basis for generating adaptive and mature moral behaviours.

Related to the five moral behaviours examined in the moral analysis instrument/character theory of Lickona, there are several things (phenomena) that the researcher found. First, in the 'cheating' behaviour (cheating during the test), 100% of student informants did not justify this behaviour (moral knowing), but the desire to commit cheating (moral feeling) appeared in all student informants when facing the test. Besides, 100% of student informants cheated during the test, at least by asking their friends for answers. So even though all students know that cheating on the test is wrong, it is not strong enough to keep them from cheating on the test. The awareness to be honest during the test has not been an internalized part of students. This phenomenon can be caused by students' lack of awareness of fear of God, students's low self-efficacy [16] (A.Shriki & I.Lavy), and less test supervision. Religion and character need to make a planned effort/program for the development of a student's conscience, where his conscience will feel guilty when committing a wrongdoing.

Second, in the behaviour of mocking/degrading friends, 100% of student informants admitted that they would not retaliate if their friends teased/put them down. It can be a positive indication of students' moral, namely patience, self-control, and love of peace (disliking a dispute). Third, on the behaviour of watching pornographic content, 100% of student informants think that children of their age should not watch pornographic content (moral knowing) and the majority of informants will feel guilty after watching pornographic content for the first time (moral feeling). However, if the behaviour of watching pornographic content is done repeatedly because friends keep offer to watch it altogether, then the feeling of guilt after a child watches it many times, will decrease or even disappears at all. One way to prevent children from falling into the habit (addiction) of viewing pornographic content is to avoid making friends/associating closely with people who are used to watching pornographic content.

Fourth, the behaviour of lying for good or white lies. Of the responses given by student informants, 75% of the responses were statements that could tolerate and accept lying for good purpose. The remaining 25% is a response which states that they cannot tolerate and accept that action (moral knowing). Furthermore, 100% of the student informants stated that they would feel guilty after lying for good (moral feeling). This last response provides an encouraging indication for researchers because a guilty feeling opens up an opportunity for someone not to repeat the mistakes of doing white lies.

Fifth, lazy behaviour to do/fulfil tasks or responsibilities. What attracts the attention of researchers here is that the factors that can motivate subjects to fulfil their duties/responsibilities diligently are getting rewards and support from others (external), which is 66.67%. While the rest, 33.33%, are things of an internal nature, namely making activity plans and starting doing something from the most-liked ones. This result is understandable considering the age of the informants are adolescents, who in their development they still need a lot of support and encouragement from people/their surroundings, in the process of internalizing their attitudes/internal motivation. Another thing that attracted researchers'attention was related to the score of student informant moral behaviour ratings in both schools, where it was found that a higher score for positive moral behaviour was found in State JHS 29, not in State JHS 9, whose score of level of moral development (reasoning) is higher. It can be explained by referring to Kohlberg's theory. He said that children with good moral development could understand moral concepts well. However, an intelligent child does not necessarily have moral development and good moral behaviour, even though he understands the moral concept that should be. Apart from the reasons above, there are also external factors from students that also influence the moral behaviour of students in school, such as the influence of the values of parents (family), peers, behaviour (role models) of teachers, school rules, school climate, etc. According to Erik Erikson's theory, peers have a significant influence on the social and moral development of adolescents (Sandra K. Ciccarelli & Glenn E. Meyer).

Apart from being influenced by student's internal factors such as motivation and positive attitudes, a good level of moral reasoning/development of students in State JHS 9--where daily attitudes and behaviours at school are also good, is influenced by the school environment which supports the formation of moral values and character of students. One form of support is the provision of religion and character learning at the schools. Religion teachers at State JHS 9 have carried out essential duties/roles in teaching and educating students on values and characters under the 2013 education curriculum. Religion gives particular emphasis related to cultivating character in the formation of noble characters, such as honesty, discipline, compassion, the spirit of sharing, optimism, love of the country, intellectual curiosity, and creativity. Other important factors in the school environment, which play a role in developing the character and moral values of students are: school rules, teacher role models, and the implementation of programs related to the cultivation of moral values and character.

In the two SMPNs studied, the school and teachers had tried to implement the rules/rules of the students earnestly. Sanctions for violations of student discipline are stated in quite a detail in the student handbook at State JHS 9. Student informants from both schools also stated that the school treats the sanctions fairly to students who commit violations. Parents and students generally accept the school's rules. This condition creates a positive and conducive school climate for the development of moral values and character of students. As emphasized by Sudarminta, the atmosphere of the school which is conducive to introducing and fostering awareness of the importance of values and moral behaviour of students, is one way to improve the morale of students. The atmosphere in schools need to reflect a real appreciation of the moral values that are planted and developed in students. All components in the school are expected to provide positive examples to students in order to create a positive school climate to carry out moral education.

Regarding the attitudes and personalities of the educators and teachers, student informants at both SMPNs stated that teachers generally show good examples of life (role models) to students, although not all teachers. In teaching activities in the classroom, they do not discriminate against students due to differences in religion, socio-economic status, etc. This condition supports students in receiving the transfer of knowledge and soft life's skills and values taught by the teachers. The integrity of the individual teacher and overall teachers in the school is an essential component for the success of developing the students' moral values and character. The presence of one or a few teachers who do not provide a good example to students can hinder the course of the moral and character education process because students can make the teacher's wrong behaviour as a reference to justify their actions.

## Conclusion and Suggestion

Related to the findings of research on morality (level of moral development, character, and moral behaviour) of students at State JHS 29 Cikunir and State JHS 9 Jati Asih, Bekasi, the researchers concluded the following matters: a) The level of student's moral development (reasoning) functions at the conventional level with a higher score for State JHS 9 students. Besides, for the highest level of moral development/reasoning (post-conventional), students'scores in State JHS 9 are also higher than in State JHS 29; b) In general, the character and moral behaviour of students at the two junior high schools studied were classified as good enough. They have good moral knowledge and attitudes that are still developing. They show positive, adaptive, and normative moral behaviours; c) The 2013 curriculum education emphasizes the formation of moral values and character of students. Its implementation is integrated into all subjects in schools; d) Whereas in the process of instilling, cultivating and developing the moral values and character of students, a conducive and healthy school climate is an absolute requirement in order to achieve optimal results. A conducive and healthy school climate is characterized by the existence of transparent, fair rules/regulations, that is implemented consequently and consistently. Besides, the exemplary teacher (educator) becomes another essential factor as public figure whom are imitated and are taken as reference by their students; and e) About the teaching methods of moral values and character, teachers need to optimize the implementation of each stage of the scientific approach in the 2013 curriculum into daily teaching practices in the classroom. Thus it is expected that there will be an increase in the moral reasoning abilities of students which then increase the level of moral development.

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# The Urban Gorontalese Language Choice and Language Attitudes, and Implications for Language Maintenance in the Region of Gorontalo Province

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**Abstract**

In a multilingual society like Indonesia, people often utilize multiple languages, each for different purposes. Their language choice might indicate their attitudes towards each language (Romaine, 2017). This study investigates language choice and language attitudes among the Gorontalese, who reside in the Gorontalo province of Indonesia. Urban Gorontalese (n=331) from different age groups, genders, and educational backgrounds participated in an online sociolinguistic survey. The survey explored the following: language use of English, Bahasa Indonesia, and Gorontalo language in different domains, and language attitudes for each. Descriptive statistical analysis showed that Bahasa Indonesia was used predominantly in many different domains by 85.8% of Gorontalese. Only 39.5% of the participants can create some phrases and simple sentences in Gorontalo language. The study also discovered that most Gorontalese have positive attitudes towards their mother tongue. More than half of the participants agreed about the importance of: (1) knowing and using their local language, (2) maintaining and teaching the language to their children, (3) acknowledging the language as a part of their identity, and (4) keeping their language alive. This study also described the implications of the community language choices and language attitudes towards the maintenance of the Gorontalo language, and drew into question Indonesia's language education policy, a law that is still imposed even after signing the United Nations Declaration of the Rights of Indigenous Peoples (UNDRIP).

Keywords: Gorontalo Language, Language Choice, Language Attitudes, Language Maintenance

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## Introduction

The world is linguistically rich, with roughly 7,000 living languages spoken across the globe. Each of these languages links to a distinct culture, identity, and way of knowing. Globalization, immigration, and digitalization have led to multilingualism to expand, with more and more people speaking more than two languages in their daily lives. As language evolves and develops, language is no longer bound to its community speaker in a certain area. The speakers might move to a different place, and their needs also change. In other words, language changes whenever a speaker comes into contact with a new community who speaks a different language.

With more integrated world economy, technology, travel, and increasing human mobility, this will undeniably lead to language contact and language competition. The result of language contact can be the replacement of one language by another, more dominant language. When one language has a lower position, while another has prestige in a community, language endangerment may ensue. The effects of language contact can be seen in different phenomena, including phonological change, language transfer, code-switching, and creole formation (Sankoff, 2001; Winford, 2005). The longer impact of language contact results in multilingualism, language maintenance, language shift, and even language extinction.

Out of 6,500 languages spoken globally, UNESCO (2019) claimed that only some of these languages were being promoted. About five percent were present on the internet, and 2,680 languages were facing language extinction. Moreover, about 40 percent of the world's population do not have access to education in the language they speak. This will significantly impact the quality of teaching and learning minority language groups (Bialystok, 2001; Cummins, 2000; De Angelis, 2011; Moore, 2006; UNESCO, 2019). Additionally, this will also damage the quality of their lives, as well as their linguistics, culture and biodiversity (Skutnabb-Kangas, 1981; 2013).

Multilingual people have a range of languages in their repertoire that they use in certain situations. Fishman (2001) mentioned interlocutor, social context, and topic as among the reasons behind a speaker's language choice. Additionally, power, size of the speakers, socio-economic factors, prestige, and vitality might also lead a speaker to choose a different language in their lifetime and/or from one generation to the next, along with that speaker's attitudes towards their languages (Dweik & Qawar, 2015).

A number of studies have looked into the language choice and language attitudes among heritage language speakers or minority language speakers in the first-world countries (Altınkamış & Ağırdağ, 2014; Dweik & Qawar, 2015; Zhang & Slaughter-Defoe, 2009). In Indonesia, most of these studies have focused on the local languages with large speakers, such as Javanese, Sundanese, and Minangkabau (Fitriati & Wardani, 2020; Mulyanah, 2017; Thamrin, 2018). However, very few studies investigated the Gorontalese community's language choice and attitudes, and their implications regarding the maintenance of the Gorontalo language in the region.

The present study investigates the language choice and language attitudes of Gorontalese[1] towards their mother tongue in the urban area of Gorontalo province. Ultimately, this study highlights the implications of the speakers' language choice and attitudes towards the maintenance of the Gorontalo language. It draws into question Indonesia's language education policy, a law that is still imposed even after signing the United Nations Declaration of the Rights of Indigenous Peoples (UNDRIP). Specifically, this study intends to answer the following questions: (1) What is the dominant language used by Gorontalese people in different domains (i.e., home, public spaces, religious / cultural activities and education)? (2) What are the language attitudes of the Gorontalese towards their mother tongue?

## Methodology

This study was conducted in the Gorontalo municipality. Gorontalo is a province located in the Northern part of Sulawesi Island of Indonesia. This study's participants are 331 Gorontalase recruited via social media and emails. A purposive sampling strategy was used to determine the participants in that they are Gorontalese between the ages of 12 and 60 years old, who live in Gorontalo City (municipality). A sociolinguistic survey measured the use of the urban Gorontalese language in different domains, such as in the home, in school, among government services, and during religious / cultural activities, and their attitudes to each language was developed. The questionnaire consists of 25 items divided into three different sections: demographic background, language use at home, and language attitudes. Data were then analyzed using descriptive statistics that describe central tendencies and variations such as means and percentage.

## Results

### *The Demographic Background of the Participants*

Table 1 shows the demographic profile of the participants. Females dominate the majority or 66.8% (221) of the participants, with only 33.2% (110) male participants. In terms of age, 28 (8.5%) were between the ages of 12 and 19, 254 (76.7%) were between the ages of 20 and 39, and 49 (14.8%) were between the ages of 40 and 59. There were no participants aged 60 years and above. As to educational background, about half of the participants or 53.2% (176) held a Bachelor's degree, 23.3% (77) were high school graduates, 18.4% (61) have a graduate or postgraduate degree, and only 0.6% (2) of the participants finished up to elementary education. This implies that a large number of the participants were female, belonging to the younger generation, and well-educated.

[1] Gorontalase refer to the people of Gorontalo ethnic group who live in the Gorontalo province of Indonesia.
The language is called the Gorontalo language or Bahasa Hulondalo.

| | FREQUENCY (n=331) | PERCENTAGE (%) |
|---|---|---|
| *Gender* | | |
| Male | 110 | 33.2 |
| Female | 221 | 66.8 |
| *Age* | | |
| 12 to 19 | 28 | 8.5 |
| 20 to 39 | 254 | 76.7 |
| 40 to 59 | 49 | 14.8 |
| 60 + | 0 | 0 |
| *Educational Background* | | |
| Elementary Education | 2 | 0.6 |
| High school | 77 | 23.3 |
| Diploma certificate | 15 | 4.5 |
| Bachelor's degree | 176 | 53.2 |
| Graduate / Postgraduate degree | 61 | 18.4 |

Table 1. Demographic data of participants according to gender, age, and educational background

### *Language Choice In Different Domains*

Figure 1 shows the frequency of use of different languages in different domains. In answering this question from the survey, the participants tend to provide more than one answer. In other words, they chose more than one language for specific domains. For instance, when they were asked what language they use at home, over 85% chose Indonesian, then 57.1% chose Gorontalo language, 9.7% chose English, and 6.9% picked other local dialects.

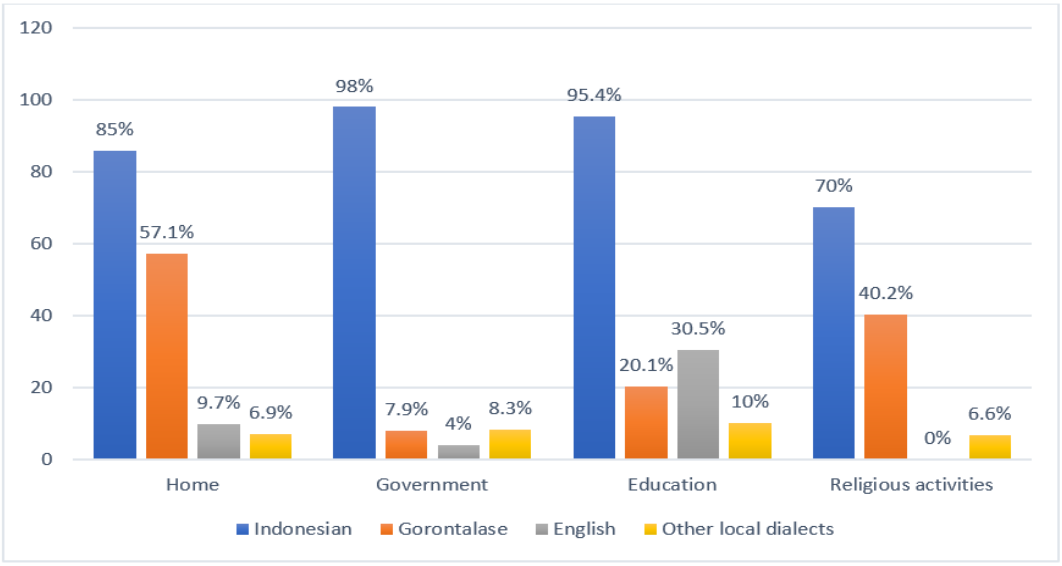


Figure 1. Language use in different domains

Regarding the language used in government services, 98% of the participants chose Indonesian, 7.9% chose Gorontalo, 4% chose English, and 8.4% chose other local dialects. As for education, which particularly measures the language used in school, 95.4% of the participants expressed that educational institutions used Indonesian, 20.14% used Gorontalo, 30.5% used English, and 3% used other local dialects. The

choice of Indonesian as the language used in government and education by majority of the participants may be due to the government and national regulations that require and support the use of Indonesian as the sole official and national language of the country. During religious activities, responses varied again, with Indonesian having the highest percentage of responses at 70%, Gorontalo language came second at 40.19%, and other local dialects at 6.6%.

***Language Attitudes towards Each Language***

The respondents were asked a series of 10 questions regarding their attitudes towards Indonesian, Gorontalo, and English. Detailed information related to the attitudes of the participants is presented in Table 2.

| Questions | Indonesian (%) | Gorontalo (%) | English (%) | Other local dialects (%) |
|---|---|---|---|---|
| Which is the most useful language in obtaining good employment and education? | 82 | - | 18 | - |
| Which language is the most comfortable to use during conversations? | 80 | 13 | 7 | - |
| Which is the most prestigious language? | 70 | - | 30 | - |
| Which language is connected to your ethnicity? | - | 100 | - | - |
| Which language is the most difficult to learn? | 30 | 41 | 29 | - |
| Which language do you need to know and use daily? | 37 | 51 | 12 | - |
| Which language represents your national identity? | 100 | - | - | - |
| Which language do you need to maintain and teach to the next generation? | 20 | 80 | - | - |
| Which language will you keep alive? | - | 100 | - | - |
| Which language connects you to the international community? | - | - | 100 | - |

Table 2. Participants' attitudes regarding each language

The data revealed that the participants indicated positive attitudes towards Indonesian, Gorontalo and English languages. Despite the participants' ability to speak other local languages, they did not show any positive attitude towards these. Out of 331 respondents, 82% indicated that Indonesian was the most useful language. Majority of the participants (70%) considered Indonesian as the most prestigious language, followed by English. The Indonesian language was also believed to represent their national identity as an Indonesian, and was the most comfortable language to use during conversations. Nevertheless, only 20% of the respondents agreed that this language needs to be maintained and taught to the next generation.

Similarly, a strong sense of positive attitude towards Gorontalo as a language that represents their identity was documented. Participants indicated their desire to learn and use this language daily, and believed that it needs to be maintained and taught to the next generation. However, they also acknowledged that it is the most difficult language to learn. None of the participants responded to the usefulness of the

language to gain employment and bright future, as well as to being a prestigious language.

English, on the other hand, was also positively valued for being the only language that can connect them to the broader, international community. English was the second most prestigious and useful language after Indonesian. However, English was also seen as the second most difficult language to learn and the least comfortable language to use during conversations.

Figure 2 shows the participants' ability to use the Indonesian language. 61.53% of the respondents admitted that they can express almost everything in Indonesian, 33.55% said they could have a conversation about anything using Indonesian language, and only less than 5% acknowledged that they cannot express everything in Indonesian. No respondent answered that they can have conversations in Indonesian only in limited situations, or produce only limited words and sentences in this official language. Likewise, none of the Gorontalese was not able to speak Indonesian at all.

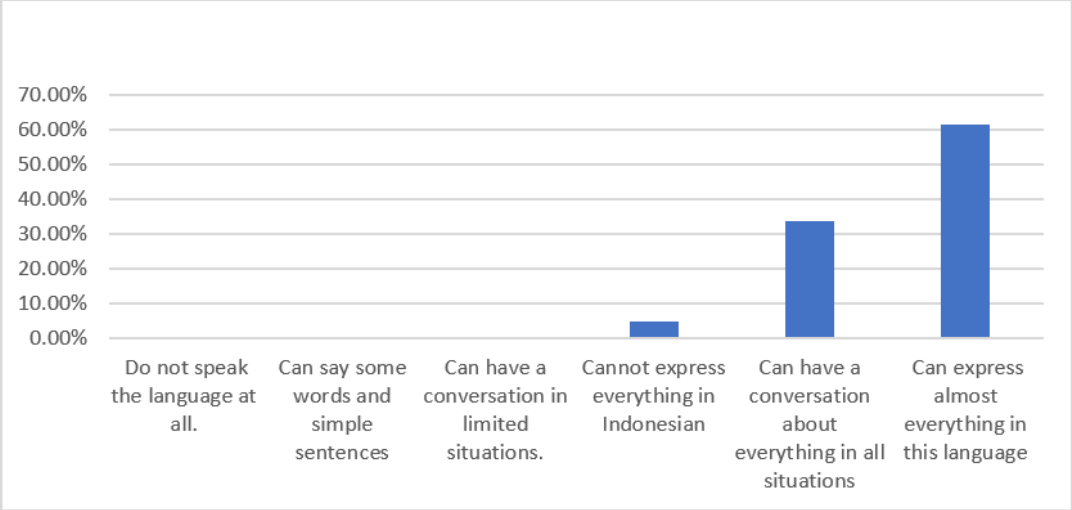


Figure 2. Participants' ability to use Indonesian language

Figure 3 presents the participants' ability to use their native language, Gorontalo. 3.4% of the respondents said that they do not speak the language at all, while only 39.5% can speak some words and simple sentences in that language. Less than 15% of the respondents were able to hold a conversation in limited situations and about 16% claimed that they cannot express everything in their mother tongue. Likewise, less than 15% of the subjects were able to have conversations about anything, and can express almost everything, using the Gorontalo language.

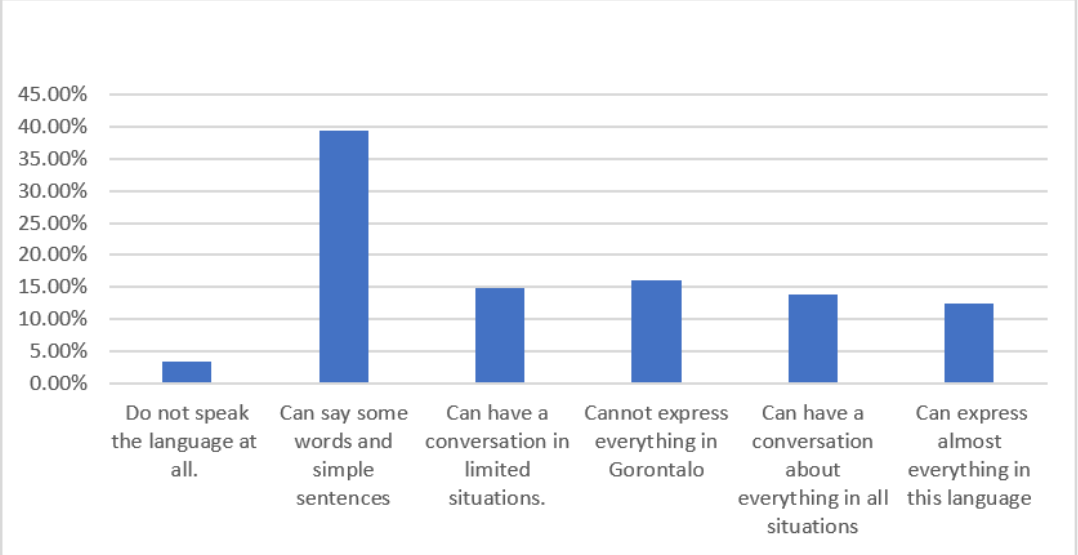


Figure 3. Participants' ability to use Gorontalo language

Figure 4 shows the participants' ability to use the English language. There were fewer than 2% of the participants who do not speak in English, while more than half (53.2%) can say simple English words and sentences. The study revealed that 21% of the respondents can hold conversations in English in limited situations, 6.8% cannot express everything in English, 10% can have English conversations about everything, and 7.4% can express almost everything in this language.

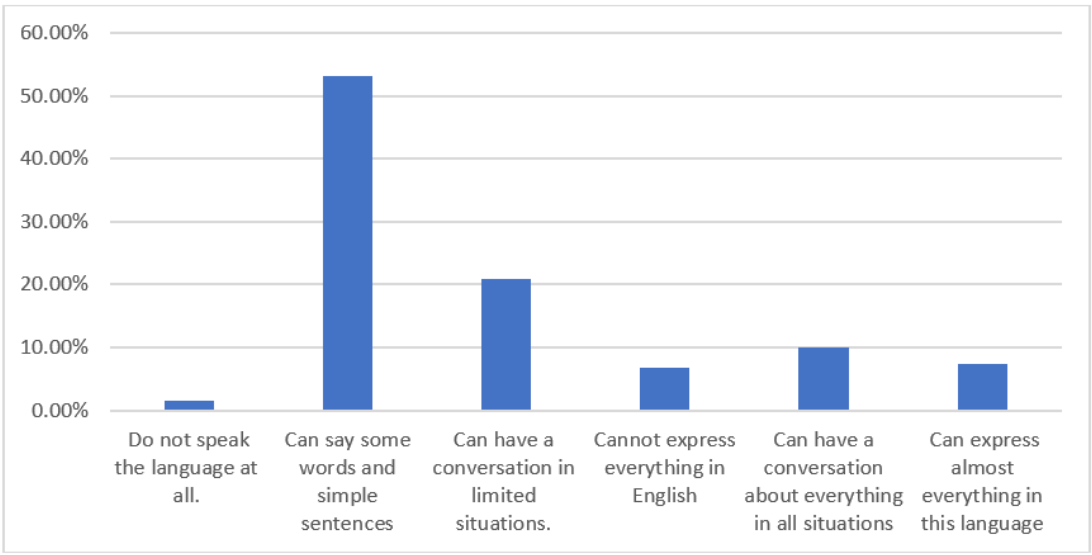


Figure 4. Participants' ability to use English language

## Discussion

Based on the information collected from the questionnaires, language choice of the urban Gorontalese in different domains, such as home, government services, education, and religious activities, were significantly dominated by the Indonesian language. Notably, even in the home, Gorontalo was already replaced by the Indonesian language. The home is where the family interacts, and is the first foundation of language acquisition and language maintenance of minority languages

(Clyne and Kipp, 1999; Canagarajah, 2008; Pauwels, 2016; Fishman, 1991; 2001; Schwartz, 2010). Clyne and Kipp (1999) explained that the home has often been mentioned as a vital component in language maintenance. Therefore if a language is not maintained at home, it cannot be maintained in any other domain.

It is often the parents who decide whether to teach their native language to their children (Fishman, 1991). When children go to school, they are exposed to the dominant language, which often serves as the medium of instruction. Children, therefore, might adapt more easily into the majority language and start losing confidence towards speaking their mother tongue. For language maintenance to take place, the language must be integrated into the home sphere. A family that actively uses the minority language at home can avoid language loss among generations.

As to the language choice for government services and education, it is not surprising that they would be overtaken by the Indonesian language, given the government regulations and the national education policy that mandate the use of Indonesian language in all government services across the country and public educational institutions. In the religious and cultural setting, the study also indicated that the Indonesian language has been favored over Gorontalo and other local dialects. Arabic, which is associated with Islam, has not been listed as a language spoken in the province, even though over 95% of its population are Muslims. This is mainly because the use of Arabic is limited to the daily prayer activities and Qur'an recitation. Recently, the Islamic schools and organizations are continuously promoting the use of the Arabic language.

The overall use of Indonesian, Gorontalo and English at home, for government services, in school, and during religious-related activities depend on various factors. This study found that majority of the respondents have higher proficiency in the Indonesian language. In addition, their proficiency in Gorontalo was even lower than that of English, which is a foreign language. The urban Gorontalese appear to have lost their fluency in their mother tongue. This indicates that the choice to speak Indonesian is influenced by the speaker's ability to use the language. This result is consistent with the study by Apfelbaum and Meyer (2010), who argued that bi/multilingual people may choose to communicate in a specific language to compensate for their lack of proficiency in another language.

When asked for the language that is vital for educational achievement, employment and formal interactions, the respondents chose Indonesian and English. The participants also viewed English as the language that will benefit them with regards to international communication and advancement of career. This is in line with conclusions made by Holmes (2013), Pillai (2006), Piller (2004), and Ferrer & Sankoff (2004), who explained that language power, prestige, and preference defined language choice in multilingual communities. The choice of using the Indonesian language is because of its official and national status. Ultimately, mastering Indonesian will not only provide economic gain but also benefit intercultural communication between different ethnic groups in Indonesia.

School activities and government-related matters should, undoubtedly, be conducted in Indonesian. Meanwhile, religious ceremonies and rituals can also be held in Indonesian, Gorontalo and other local dialects, depending on the specific purpose. It

can be said that multilinguals have various language choices available in their repertoire, and they are able to choose which language may serve them better in a particular situation (Fasold, 1990; Gumperz, 1964).

The use of Indonesian at home, where Gorontalo was supposed to be mainly used, has strongly indicated a language shift. This study also showed that Gorontalo was the second language most commonly spoken after Indonesian. David, et. al (2009) asserted that continued use of minority languages implies that these languages are alive, and that they can survive only if they are maintained in the home. Unfortunately, the status of Indonesian as the official language, and English as the most spoken international language, led to the perception that learning the mother tongue is less important. When speakers of a speech community do not see any economic significance in using their heritage language, they will shift away from this language to another more dominant, powerful, and prestigious language.

This study also discovered that level of education is another factor influencing language choice. Since majority of the participants have a university degree, the participants' language use is mostly dominated by Indonesian, which is the medium of instruction in all public institutions. It is noticeable that the longer they attend educational institutions, coupled with higher social factors, such as education and social class, the longer their level of exposure to the dominant language has become. The prospect of a shift to another language is feasible (Fishman, 1965; Grenier, 1984; Pendakur, 1990). Furthermore, Fishman (1965; 2001) highlighted that various institutions, such as language schools, libraries, print and broadcast media, religious congregations, social clubs, and ethnic restaurants and shops, served to ensure retention of minority languages within an ethnolinguistic community.

Positive attitudes were attributed by the urban Gorontalese towards each language in their repertoire, Indonesian, Gorontalo, and English. They considered Indonesian as the most useful, comfortable, and prestigious language, as well as a part of their national identity as Indonesians. Although the participants exhibited positive attitudes towards English as an international language, it was also perceived as not the most comfortable language to use in daily interactions. As a result, they did not think about maintaining and teaching it for the next generation. In contrast, more than half of the participants recognized the importance of knowing and using their local language, and therefore, the need for maintaining and teaching it to their children. They also acknowledged that Gorontalo was a part of their identities, and that they intended to keep it alive. Despite having positive attitudes towards their mother tongue, at home, the Indonesian language was still favored. This study confirmed previous research findings that attitudes towards the heritage language were found to be highly positive, even though the use of the language, and proficiency in it, may be limited or even declining (Edwards, 2011; Slavik, 2001).

**Implications on Language Maintenance in Gorontalo**

Language endangerment is a reality in Indonesia. With more indigenous language speakers shifting to Indonesian, a quick action is needed to keep the indigenous languages alive. Fishman (1980) stated that the home and community have the greatest impact on language maintenance, followed by educational institutions and government regulations. While there seem to be no single method that has

successfully been discovered to maintain an indigenous language, family and community effort has been seen as the core for language maintenance (Fishman, 1980; Canagarajah, 2008; Pauwels, 2016; Schwartz, 2008). The current study demonstrated that language shift has already taken place in urban areas of the Gorontalo province (the municipality). Therefore, allowing for strengthening of the family language maintenance at home, as well as within the community, are indispensable.

Other than constant use of a language within the family, the use of a language in the school is likewise an important key to preventing language shift and language extinction in indigenous communities (Bear Nicholas, 2009). However, because of the national regulations that recognize only the Indonesian language as the medium of instruction in all levels of public education, Gorontalese children have lost their opportunity to be educated in their native language. Although the Gorontalo language is still taught as a local subject (*mulok*), time and resources allocated to learning this language in school is limited. With only two 35-minute periods in a week, and a lack of textbooks, teaching materials and educators who speak the language, this seems an insignificant amount of time and effort to maintain the language or prevent language loss.

The Gorontalo tribe, as one of the customary people (*masyarakat adat*) in Indonesia, has a full and legal right to be educated in their native language, as stated in the United Nations Declaration of the Rights of Indigenous Peoples (UNDRIP), that was signed and adopted by the Indonesian national government. UNDRIP, which was established as a minimum standard of general framework to ensure indigenous people's rights and protection, was originally signed by 144 countries, including Indonesia (Hanson, 2009). However, this pronouncement seems to not change Indonesian laws, particularly about language use for educational purposes.

Language use in education has been advocated to strengthen language maintenance and prevent language shift. On the other hand, it has been suggested by scholars (Bear Nicholas, 2009; Holmes, 2013; Kalra, 2018; Shaeffer, 2008) that if the dominant language was used for education, ultimately, the use of minority language in other domains will decrease. Therefore, it is important that indigenous languages are used for purposes of education to remain sustainable. To be effectively used for education, the national and regional government should create a policy that guarantees and guides its use. However, in many countries in Asia such as Indonesia, such a policy is often limited to certain levels of education, or does not even exist at all.

In this case, the national and provincial government must be involved in rebuilding Indonesian indigenous languages. Without the involvement of the government, more and more indigenous languages will face language endangerment. The status of Gorontalo language also needs to be raised through the education system, to ensure access, quality, equity, and empowerment. Last but not least, it is important to bear in mind that the support from the government also requires movement and initiation from the community language speakers. The community needs to show a positive attitude towards the language and willingness to initiate grass-root programs to maintain the language. Furthermore, on an individual and family level, the speakers of a minority language should likewise try to maintain their language at home.

## Conclusion

In multilingual Gorontalo communities where multiple languages such as the Gorontalo language, Indonesian, Gorontalo Malay, and English coexist, language shift has a bigger chance to take place. The urban Gorontalase have started to lose their mother tongue in favor of Indonesian, and English. This paper presents the results of a study about language use and language attitudes in an urban Gorontalo community in the Gorontalo province. It was found that although the majority of the participants have shown positive attitudes toward the Gorontalo language, language shift has already taken place in the urban Gorontalo community as the language used in daily life has already been replaced by Indonesian and proficiency in the mother tongue has beed decreased. Even the family domain, where a minority language or heritage language was used, is now shifting their language use to Indonesian.

Indonesian language is used exclusively in education and government services as mandated by the national regulation, it is also largely spoken in cultural and religious services. As this study was only conducted in an urban area community, further research is needed to discover whether the use of Indonesian language has also penetrated the remote areas in Gorontalo province. Language maintenance and language policy on different scales such as national, regional, community and family are urgently needed to prevent language loss. If Gorontalo language speakers are continuously reduced in numbers, with parents no longer using the language with their children even at home, the language will soon be extinct.

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# *A Mentorship Model for Pre-Medical Students Disadvantaged in the Medical School Application Process*

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**Abstract**
Applying to medical school is a long, convoluted, and expensive process. While some applicants may be able to afford third-party application consulting services for professional one-on-one advice, others struggle to overcome the basic financial obstacles of applying, such as application fees, travel and accommodations for interviews, and more. “Giving a Boost” (GAB) was founded at the University of Pittsburgh School of Medicine to address this issue by providing free application consulting services to medical school applicants in the Pittsburgh area with a focus on supporting those from socioeconomically disadvantaged backgrounds. Overall, 97 medical school applicants were recruited from the Greater Pittsburgh area to receive essay support from 65 Pitt Med student volunteers over the summer of 2020. Following the summer essay program, 71 applicants completed a survey rating their experiences with GAB in comparison to other essay preparation resources. GAB was given a rating of 8.7 out of 10 and was rated significantly higher than any other resource ($p < 0.01$). Between August and December, the number of volunteers and applicants in our program increased, and volunteers provided a total of 151 mock interviews while also assisting applicants with writing update letters and letters of interest to medical school admissions committees. So far, we have found GAB to be an effective mentorship program that can provide medical school application support to disadvantaged pre-medical students. Furthermore, we hope that other schools may initiate similar programs to provide meaningful experiences for medical students while supporting applicants who are most in need.

Keywords: Pre-Medical Education, Medical Schools, Mentorship, Mentor, Mentee, Medical School Application

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## Introduction

Applying to medical school is one of the first steps that students must take towards becoming physicians. However, it is a costly and convoluted process that acts as an inequitable barrier for many students. The current American Medical College Application Service (AMCAS) process of applying to medical school consists of multiple steps: a single primary application, individual secondary applications for each medical school to which the student is applying, interviews, and the submission of additional letters to admissions committees. The primary application includes a personal statement and descriptive resume, and the secondary applications include several institution-specific essay prompts. Once medical schools review both applications, in addition to academic performance, students may be invited to interviews. In 2018, the median number of interviews offered and attended among medical school matriculants was three (Association of American Medical Colleges, 2018). Finally, student applicants may submit updates, letters of intent, or letters of interest to institutions throughout the year in an attempt to improve chances of acceptance.

This entire process carries immense financial burden for many applicants. While some applicants may be able to afford to spend hundreds of dollars per hour to utilize third-party application consulting services for professional one-on-one advice, others struggle to overcome the basic financial obstacles of applying, such as application fees, travel and accommodations for interviews, and more. On supplemental (secondary) applications alone, the median cost reported by medical school matriculants in 2018 was $1,200 with 13.2% spending $3,000 or more (Association of American Medical Colleges, 2018). Programs, such as the AAMC Fee Assistance program for primary applications and school-specific accommodations, exist to lessen these expenses. However, no aid packages exist that fully cover the costs of applying (Millo et al., 2019). Of the programs that do exist, they do not adequately compensate for the massive advantage of professional consultation.

We truly believe that the medical school admissions process should be based on applicants' merits, character, and passion for medicine, rather than their monetary wealth or pre-existing connections. To equalize the playing field, we established "Giving A Boost" (GAB) at the University of Pittsburgh School of Medicine (Pitt Med) as a student organization in which like-minded medical student volunteers provide free application consulting services, such as essay feedback on primary and secondary applications and interview preparation, to allopathic and osteopathic program applicants in the Greater Pittsburgh Area.

## Giving a Boost's First Year

At the start of 2020, GAB's first goal was to provide both MD and DO medical school applicants with feedback on their application essays via a summer essay program for local students applying to medical school.

To reach out to nearby applicants to medical school, we first contacted the nine pre-health advising programs (University of Pittsburgh, Carnegie Melon University, Chatham University, Point Park University, Duquesne University, Carlow University, Allegheny College, and Washington and Jefferson College) in the greater Pittsburgh

area to request that they advertise our free services to their students. Second, we contacted various departmental advisors and pre-medical student organizations at local universities to further disseminate our information. Third, our information was distributed through the "Pitt Med Student Ambassadors" social media pages, which are frequented by many students interested in Pitt Med. Throughout the whole process, we advertised our services to applicants as a free, comparable version of those offered by paid consulting businesses. In addition, we requested that interested applicants self-select amongst themselves and sign up if they felt that they would not have been able to afford those consulting businesses' paid services. This allowed us to support the applicants who would benefit most from our free help.

To ensure that each of the 97 applicants who ultimately signed up for our upcoming summer program could be properly supported, we recruited 65 students from Pitt Med who committed to serve as volunteer mentors over the summer months. As students at the medical school, all our volunteers had experienced writing a variety of essays as part of the medical school application process. They were trained and then instructed to provide comments and feedback on the applicants' main primary application personal statement and various secondary application essays throughout the summer.

After recruiting our medical school applicants and Pitt Med student mentors, we distributed a survey to both groups to gather personal information, including undergraduate majors, extracurriculars, and personal motivation for medicine. Our intention behind this survey was to create mentor-mentee pairings of similar backgrounds so that the medical student could provide support unique to their shared experiences (e.g. reapplicants, nontraditional, under-represented minority, first-generation low income, MD/PhD). Using this method, each applicant was paired with one of the Pitt Med student volunteers.

Over the summer, GAB leaders sent a biweekly email to check in with each applicant and student volunteer in order to ensure that the process was running smoothly from both sides of each applicant-volunteer pairing. The GAB team personally managed any issues that arose throughout the summer. For example, if an applicant could not reach a volunteer, we were able to contact the volunteer to remind them of their commitment to the program or ultimately reassign the applicant to a new volunteer if the issue persisted.

At the beginning of August, once our summer essay support ended, we started offering mock interview services to prepare applicants for the next step in their application process. All summer program applicants were invited to make use of our continuing services, which began with the mock interviews that were offered throughout the fall semester. We also collaborated with the Minority Association of Pre-Medical Students chapters in Pennsylvania, Delaware, and West Virginia to further extend the reach of our program to underprivileged students of underrepresented minority backgrounds across these three states. All volunteer mock interviewers were again recruited from amongst Pitt Med's students. We again trained the Pitt Med volunteers on how to perform mock interviews, as well as how to provide constructive feedback on their mock interviewees' responses. Most of the volunteer mock interviewers also act as student interviewers for the Pitt Med admissions office, so these volunteers were able to provide the mock interview as they would for a regular medical school interview. In total, 45 volunteer mock interviewers

have provided 88 applicants—many of which were not involved in our summer program—with a total of 151 mock interviews across a 5-month period, beginning in August.

As requested by many of the applicants, in November, GAB volunteers gave a presentation to applicants on how to write update letters and letters of interest to medical school admissions committees. Since this presentation, applicants have been invited to submit their drafted letters for advice, with GAB volunteers providing comments and feedback to their assigned applicants in a method similar to our previous summer essay program.

As this year's medical school admissions cycle progresses, we will continue to provide free services to local and regional applicants, as requested.

**Results from Our Summer Essay Program**

At the end of the Giving a Boost 2020 summer essay program, a survey was distributed to the applicants to rate their experiences with the program on a scale of 1-10 (with 10 being the highest) compared to other essay preparation resources, including friends, faculty, pre-health advising, student organizations outside of GAB, and paid consulting services. Respondents were also asked to provide basic demographic information. Survey data was collected using Google Forms (Google, Mountain View, CA). Statistical analyses and figure creation were performed using GraphPad (GraphPad Software, San Diego, CA).

71 applicants filled out the survey (73% response rate). Out of those who responded, 4 (5.6%) self-identified as 1$^{st}$ generation college students, 6 (8.5%) as LGBTQIA+, 11 (15.5%) as under-represented minorities (URM) in medicine, 4 (5.6%) as MD or DO program reapplicants, and 12 (16.9%) as being from a medically underserved area. For the application cycle of 2020-2021, 21 (29.6%) applicants self-identified as being from the undergraduate graduating Class of 2021, 24 (33.8%) from the Class of 2020, 19 (26.8%) from the Class of 2019, and 7 (9.9%) from the Class of 2018 or older. This data is summarized in Table 1.

Across the 71 responses, applicant ratings for GAB, pre-health advising, student organizations outside of GAB, friends, and faculty (average ± standard deviation) were 8.7 (1.8), 5.3 (3.2), 4.1 (3.2), 7.6 (2.3), and 6.0 (3.2), respectively. Two-tailed Student's t-test with unequal variance was performed between GAB and each of the other resources. GAB was statistically significantly rated higher than any other resource. More specifically, analysis comparing GAB with the next highest rated resource (friends) yielded a p value of 0.0034. Comparisons with pre-health advising, student organizations outside of GAB, faculty, and paid consulting services yielded p values $<< 0.0001$ (Figure 1 and Table 2). Finally, the applicants rated a willingness to recommend GAB to others as a 9.5 (1.0).

| **Applicant Demographics** | **Number (%)** |
|---|---|
| 1st Generation College Student | 4 (5.6%) |
| LGBTQIA+ | 6 (8.5%) |
| Underrepresented Minority in Medicine | 11 (15.5%) |
| Reapplicants | 4 (5.6%) |
| From a Medically Underserved Area | 12 (16.9%) |
| **Graduating Classes (Undergraduate)** | |
| 2021 | 21 (29.6%) |
| 2020 | 24 (33.8%) |
| 2019 | 19 (26.8%) |
| 2018 and Older | 7 (9.9%) |

**Table 1: Demographics of applicants this cycle who signed up for GAB.**

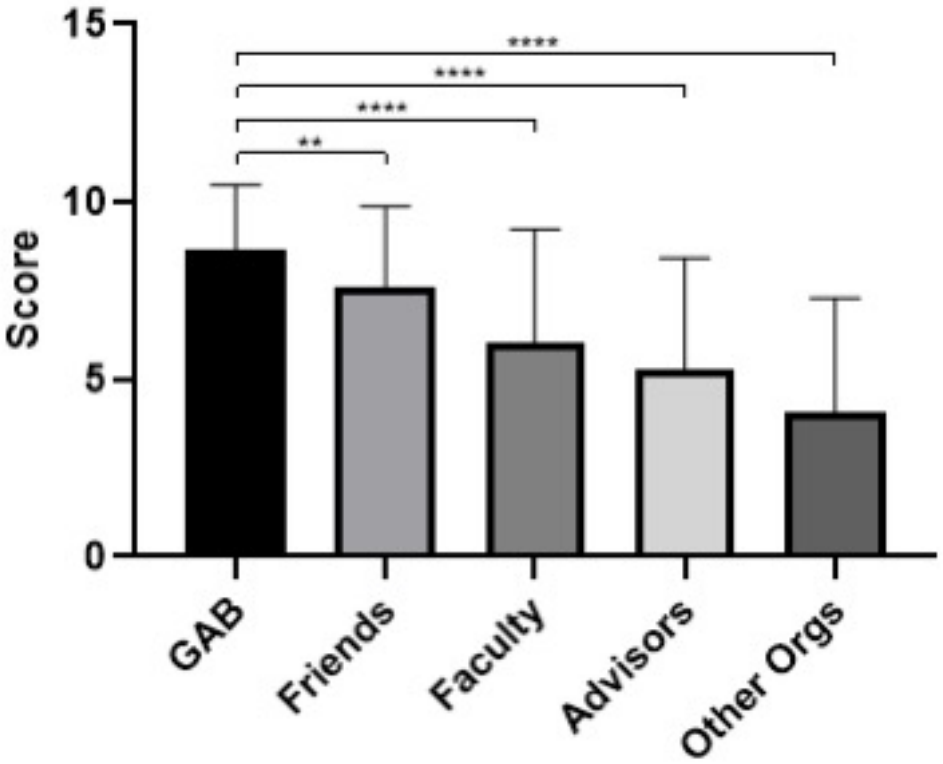


**Figure 1: Graphical representation of the average scores and error bars for each of the resources rated by applicants**.

GAB was statistically significantly rated higher than any of the other resources. **** $p < 0.0001$, ** $p < 0.01$.

| | Average Score (stdev) | P-Value Compared to GAB |
|---|---|---|
| Giving a Boost (GAB) | 8.7 (1.8) | |
| Pre-Health Advising (Advisors) | 5.3 (3.2) | <<0.0001 |
| Student Organizations Outside of GAB (Other Student Orgs) | 4.1 (3.2) | <<0.0001 |
| Friends (Friends) | 7.6 (2.3) | 0.0034 |
| Faculty (Faculty) | 6.0 (3.2) | <<0.0001 |

**Table 2: Statistical analysis comparing GAB to other resources rated by applicants.**

The numbers displayed in this table correspond to the graphical representation in Figure 1.

**Reflections**

GAB was initiated with the goal of providing mentorship to students navigating the medical school application process by taking a holistic and longitudinal approach to advising. A central pillar of medical education is passing along experiences and advice from those who have successfully completed a requisite stage of the journey, which is embodied by this free service for applicants. For students who do not have the financial means to utilize an application service, this program helps to reduce disparities based solely on socioeconomic status. Mentorship and advising are vital both in the stages preceding medical school, as well as at each subsequent milestone of medical training. Through pairing applicants with medical students who recently navigated the medical school admissions process, GAB was able to offer support that incorporated all of the components of a successful application.

The model that we created has demonstrated that a medical student to pre-medical student pairing has been effective in providing essay and interview feedback to disadvantaged pre-medical students. In addition, mentor-mentee relationships have fostered a broader discussion of competencies that are encouraged and expected in a practicing provider. From our first year, we found that both parties benefitted from the experience, not just the applicant. For mentors, the ability to give back and contribute to the next cohort of medical professionals has anecdotally proven to be a rewarding and educational experience.

The implementation of GAB at the University of Pittsburgh School of Medicine was a collaborative undertaking by several motivated medical students and faculty members, and we have a strong belief that similar programs can be implemented at other medical schools with the right support. Given the stringent timeline that medical students across the nation abide by in regard to standardized exams (USMLE Step 1) and clinical rotations (usually beyond M-2 year), we saw successful implementation of GAB during the first year of medical school. When we established this organization as first-year students, we were still very familiar with the medical school application cycle, and many of the upperclassmen involved in our program volunteered when they were not actively participating in their clerkship rotations.

Thus, it is also important to consider medical school timelines and various curricular requirements when establishing a similar organization at another institution.

Present success of GAB has been represented by applicant feedback following various components of support and mentorship throughout this application cycle. While this indicates levels of applicant satisfaction and their perceived level of support with application materials, it does not yet encompass the ultimate goal of the program, which hopes to convert a high degree of longitudinal support into medical school acceptances and matriculations. This data will be collected in the spring and summer months of 2021 as the first GAB cohort approaches their first year of medical school.

## Conclusion

With an initial goal of providing essay assistance to medical school applicants, GAB has become a student organization that has provided not only free primary and secondary essay feedback, but also assistance regarding interviews, update letters, and letters of intent/interest. GAB grew into a longitudinal and holistic mentorship program that has proven how medical student to pre-medical student pairings are effective in providing medical school application support to disadvantaged pre-medical students. We expect for GAB to continue its growth at Pitt Med and further expand in the mid-Atlantic region. We hope that these efforts will encourage other schools to initiate similar programs to provide meaningful and educational experiences for medical students while also making a convoluted and difficult process more affordable and supportive for applicants who may not otherwise have the connections or means to receive this help.

## Acknowledgements

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# *Student Views of Attendance at Japanese Universities in the Era of COVID-19: A Preliminary Look*

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**Abstract**
With the onset of the COVID-19 pandemic, many Japanese universities moved their courses online and belatedly began the 2020-2021 academic school year in late spring 2020. While this move supported social distancing measures, it nevertheless brought new difficulties and concerns (both pedagogical and technological) that consequently caused both instructors and students alike to question previously accepted practices, one of which was the taking of attendance. Instructors' opinions on the matter of taking attendance remotely ran the gamut, with their hastily rewritten syllabi reflecting their chosen approaches to the issue. However, as attendance policies needed to be decided well in advance of student registration and the commencement of classes, students' views on the matter were never considered.The current paper presents early-stage research results from a study involving students at three Japanese universities. Questionnaires investigating students' opinions about university attendance both before and during the 2020 COVID-19 pandemic were administered at the start of the academic year's second semester (September 2020). Data analyses revealed that instructors were anything but uniform when it came to taking attendance during the first semester of the pandemic and that students overall were used to and thankful for having attendance grades support their academic achievement grades. The results of this stage of the research are meant to be incorporated into a larger study on Japanese university student attendance in the first year of remote learning in the era of COVID-19.

Keywords: Attendance, Japanese University, COVID-19

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## Introduction

On March 11, 2020, the World Health Organization (WHO) declared the novel coronavirus COVID-19 outbreak to be a pandemic. This announcement prompted Japanese universities to consider the impact COVID-19 would have on the health and wellbeing of their students, faculty, staff, and others, for their upcoming 2020-2021 academic school year, which was scheduled to begin in April. By the end of March, Japanese universities had en masse began moving classes online for the new school year as a means to mitigate the spread of this contagion. As Japanese university classes typically begin around the second week of April, most universities pushed back their spring semester start date to the second week of May so that all involved – including students, instructors, parents, and even university IT departments – would have time to make the necessary arrangements to have students learn remotely.

For the many instructors teaching at these universities, this decision to move to online instruction presented a host of difficulties and challenges. With only a few weeks of preparation time granted to them, these instructors not only had to quickly learn how to present their course material in an online-only format, which often required that they learn the particulars of university learning management systems (LMSs), but they also had to make decisions regarding some of their most fundamental pedagogical practices. One such practice is the taking of attendance.

Instructors were divided on the issue of taking attendance remotely. Some opted to forgo the customary act of taking student attendance (see Wadden & McGovern, 1993) while classes were online. This was decided partly to counter the unpredictability of class participants' ability to attend online classes at specific times (e.g., due to unstable Internet access), but also partly to reduce the burden that the unexpected online teaching situation presented them as instructors. Other instructors supported the maintaining of attendance policies due to perceived benefits beyond just ascertaining students' physical presence at predetermined times (see below). Novel and creative approaches to taking attendance remotely were consequently devised (see Rubrecht, 2020, for an example).

In the end, the decision of whether or not to take attendance was largely left up to the individual instructors. While all instructors no doubt wished that their students would "attend" all remote lessons, it can be speculated that the question of whether or not attendance should be taken in remote teaching and learning (hereafter, RTL) situations – not to mention how attendance might best be taken – was never asked of the students. In other words, because instructors had so little time to restructure their courses for online learning prior to the start of the new academic school year and because syllabi had to be reworked prior to the commencement of classes, students' views about attendance and attendance-taking methods were never considered.

In an effort to understand what students think about attendance, both in normal times and during the COVID-19 pandemic, an online questionnaire was administered in September 2020 to students enrolled at three Japanese universities. The questionnaire represents an early stage of a larger research project that investigates students views of attendance, remote attendance-taking methods, and student participation in general during RTL situations.

## The Literature

As with many other educational and pedagogical issues, there is little consensus regarding the taking of student attendance at the university level. While university instructors value student attendance in principle (see Sperber, 2005, for exceptions), they are nevertheless divided on the subject of whether or not attendance should be taken. Research investigating possible correlations between attendance and other factors such as students' understanding of course content, information retention, motivation, and overall academic achievement have produced mixed results (Credé, Roch, & Kieszczynka, 2010; Devadoss & Foltz, 1996, as cited in Rocca, 2004; Marburger, 2006).

Possible correlations aside, what is of current concern is the question of *why* attendance may or may not be taken either as a matter of institutional or course policy at the university level. It is of note that different higher education institutions across the globe approach the topic of taking attendance differently, with differences extant even between an institution's own departments and between individual instructors. For instance, at many Western universities (e.g., those in the U.S.), attendance is usually not mandatory (Marburger, 2006), but individual instructors may enact attendance policies that may or may not influence students' final grades. In other countries (e.g., Japan), sufficient attendance is often a prerequisite to passing courses, and it is not unusual for tardiness to be checked and recorded as well (McVeigh, 2002).

The reasons why attendance policies might be established or be considered irrelevant to university classroom participants are wide ranging. Though far from being all-inclusive, the list below presents some of the more common reasons for and against instituting attendance policies at the university level.

### *Reasons against taking attendance at university*

#### 1. University students should be treated as adults.

Students in the West are typically considered to be adults (or very nearly so). Therefore, class attendance is ultimately viewed as a given, as students are expected to display maturity and take responsibility for attending classes whenever possible.

#### 2. University instructors should focus their energies on teaching.

Related to the first reason, if students are considered to be responsible adults, then their instructors should spend their time and energy not on taking attendance but on preparing for lessons and giving feedback and guidance.

#### 3. Attendance does not guarantee that students are learning.

Just because a student attends classes says nothing about whether or not the student is actively learning in them. Students may show up to a lecture but may then sleep, engage in apps on their smartphones, or otherwise generally tune out. Such students may even be seen as distractions in the teaching and learning process (see Sperber, 2005).

**4. Attendance assesses one thing while grades assess something else entirely.**

Some instructors are cognizant of the fact that good attendance does not necessarily indicate student diligence or effort. For such instructors, to regularly take attendance, let alone to have attendance factor in to students' grades, seems incongruous and is hence essentially meaningless.

**5. Taking attendance is a waste of class time.**

This is particularly true in large classes with hundreds of students, as it poses a real time and logistics challenge (e.g., some students may respond when their absent classmate's name is called). Seating charts and sign-in papers come with their own downsides (Marshall, 2017). In recent years the use of electronic tracking (i.e., ID card scanners in classrooms) has somewhat mitigated this time aspect, but such technology is expensive (Quinonez, 2014) and not foolproof. Nevertheless, there are creative attendance-taking methods that can reduce this burden significantly, regardless of class size (see Rubrecht, 2006, for an example).

***Reasons for taking attendance***

**1. Taking attendance has been and continues to be a customary practice.**

In the eyes of some, universities are not all that different from the lower levels of education, especially if parents are paying tuition. If taking attendance had meaning pre-university matriculation (e.g., attending classes teaches and stresses the importance of discipline, it allows caregivers to ascertain students' whereabouts), it likely retains some merit after.

**2. Attendance leads to punctual assignment submission.**

Lackadaisical attitudes towards attendance can lead to students coming to class sporadically, if at all. This can be problematic when assignments throughout the semester or school year must be turned in and graded on time before later lectures can advance to more complex themes, for instance, in writing classes (Wachs, 1993). If students do not come to class and submit work in a timely manner, then their progress cannot be accurately assessed, and they will likely fall behind their regularly-attending classmates.

**3. The difficulty or general nature of a course is such that mastery requires attendance.**

Relatedly, students cannot hope to master the content of some courses, like foreign language courses, with a spotty attendance record. In these cases, what was learned in one lesson will be needed and applied in the next. Having a strict attendance policy encourages students to follow course material as the lessons progress **(**Robb, 1993).

**4. Students mistakenly think university is the time when they can relax.**

Japanese universities have been labelled "four-year vacations" (Keaton, Kelly, & Pribyl, 1997) because the act of entering university (by taking exams) is often more

difficult than graduating from them and because students are often seemingly just biding their time until they get a job offer from a company. It is not unheard of for students to consequently view university as the time when they can finally feel liberated from their studies (McVeigh, 2002) and their associated responsibilities.

**5. Attendance is part of students' grades in a course.**

This is often the case at Japanese universities, where attendance, or at least "class contribution," which can include criteria such as attendance, participation, and punctuality (in terms of coming to class on time and/or the timely submission of assignments), can be used as part of student assessment. Students tend to like the fact that attendance is figured into their final grades, as it requires relatively little effort compared with actually studying and learning (McVeigh, 2002).

Regardless of one's stance on the matter, the move to RTL required by students and instructors alike at Japanese universities from the 2020 spring semester necessarily caused all stakeholders to revisit the topic of attendance. Decisions about attendance taking had to be made well prior to the commencement of that spring semester so that course syllabi (and their attached grading policies) could be finalized and announced to students so that they would be knowledgeable about the courses being offered. The decisions made were hardly uniform, as evinced by the responses heard by the researcher in early spring 2020 in online forums and practice Zoom sessions with other instructors in Japan and by the subsequently disseminated syllabi.

With few exceptions, instructors and their students were not in contact with each other in early spring 2020 when these decisions were being made. Because students had yet to enroll in any courses, students' opinions about attendance taking during this extraordinary and unsettling time went uncollected and unconsidered, which was a missed opportunity since students' views on attendance are just as varied – if not more so – as those of instructors (see McVeigh, 2002, for examples).

**Methodology and Participants**

The participants in the current study were 102 students enrolled full time at three Japanese universities located in the Tokyo metropolitan area. They were of varying majors (e.g., commerce, law, management) in different years of study (first year = 50 students, second year = 45, third year = 7). None were majoring in English. The classes they were enrolled in with the researcher focused on various topics (e.g., English communication skills, academic English writing). Due to the COVID-19 pandemic, all classes for this academic year were conducted online and utilized a mixed teaching approach, that is, both on demand videos constructed by the researcher and Zoom sessions.

At the commencement of the fall semester in September 2020, all students enrolled in the researcher's courses were asked to complete an online Google Forms questionnaire about attendance. Students were informed about this questionnaire and were given its link in through each university's LMS. They were told about the purpose of the questionnaire and the research, that participation was voluntary, and that their answers would remain anonymous. While all fall semester participants were informed of the questionnaire, for the purposes of this research, only the researcher's

spring semester students were eligible for participation (see below).

The questionnaire was written in Japanese and included a range of questions about the participants' classes and their views about the taking of attendance, both before the 2020 academic school year and during the fully online 2020 spring semester. The questions were a mix of multiple choice and open-ended questions. Participants were told that written responses could be written in either Japanese or English. Not all students answered all questions, and some students provided multiple answers.

**Research Results**

The questionnaire questions and the participants' responses are as follows[1].

***[Q1] Indicate your 2020 spring semester class with the researcher (multiple choice, with a "not applicable" option)***

This question was meant to ascertain which questionnaire respondents were students of the researcher in the spring semester. Of the 124 respondents, 102 students were the researcher's spring semester students.

***[Q2] Indicate the number of courses you were enrolled in during the 2020 spring semester***

Responses revealed that the participants were enrolled in between nine and 20 courses in the spring semester, with most taking between 12 and 15 courses weekly.

***[Q3] Indicate the number of 2020 spring semester courses where instructors clearly took attendance***

For most students, between three and six of their instructors took attendance. Considering [Q2] responses, this shows either that many instructors were not taking attendance (e.g., because they had abandoned the task) or that instructors were able to take attendance unobtrusively (e.g., over Zoom in low teacher-to-student-ratio courses). Students reported that instructors took attendance in 639 of their 1,341 total courses, or in less than half (48%) their courses. The breakdown of the percentage of courses where instructors took students' attendance in their 2020 spring semester courses is as follows, with student response numbers from here and throughout the rest of the paper in parentheses.

1% – 10% (7)
11% – 20% (8)
21% – 30% (17)
31% – 40% (11)
41% – 50% (22)
51% – 60% (4)

[1] Though they provide valuable insight into students' myriad perspectives regarding issues related to attendance, due to space limitations, only the most commonly given responses are listed.

61% – 70% (10)
71% – 80% (9)
81% – 90% (1)
91% – 99% (5)
100% (7)

***[Q4] Why do you think instructors would decide not to take attendance in the 2020 spring semester?***

In the weeks leading up to the start of the 2020 spring semester, instructors were told by their universities to be lenient when it comes to things like assignments and grading because students would likely be anxious and confused about the move to RTL. Instructors' syllabi were to reflect this leniency, which ostensibly should have included any alterations to course attendance policies (e.g., that attendance would not be taken) and if and how attendance would impact students' grades.

To gauge students' opinions on the subject, this question asked students why they thought their instructors might have decided to refrain from taking attendance during that first semester online. In constructing this and other questionnaire questions, participants were (a) provided with common and reasonable options (e.g., options mentioned by various instructors in the online discussion groups prior to the start of the spring semester), (b) allowed to select multiple options, and (c) given space to include their own options. Results were as follows.

- It would be too onerous to take attendance remotely (61)
- The request to start RTL came suddenly, so instructors decided to devote their time and energy to more important matters (e.g., the recording of on demand videos) (43)
- Instructors sometimes normally downplayed the importance of attendance, so RTL brought about little change (15)
- No one was used to RTL, so instructors purposefully downplayed the importance of attendance (15)
- The request to start RTL came suddenly, so instructors decided to be lenient with students (15)
- Instructors always have and always will take attendance, so this question is not applicable (8)

Six students gave alternate reasons from the ones presented on the questionnaire, that is, that instructors could get attendance from grading assignments because the students were "present" when completing them (3), that tests are the only things needed for instructors to judge students' comprehension of course material (2), and that instructors teach far too many students to make the taking of attendance feasible (1).

***[Q5] How did instructors take attendance in the 2020 spring semester?***

Five attendance-taking methods were presented on the questionnaire, with an additional open "other" option added. The 334 responses received for this question were tallied as follows.

- Students submitted attendance sheets weekly[2] (102)
- Instructors counted submitted assignments as proof of attendance (75)
- Instructors checked attendance during Zoom sessions (70)
- Instructors checked attendance via the university's LMS (67)
- Students sent instructors a notice (e.g., an email or LMS message) of "attendance" weekly (20)
- Other (0)

***[Q6] How would you take attendance if you were an instructor teaching remotely in the 2020 spring semester?***

This question was presented in a similar style to that of [Q5], with the exception that one additional option was added.

- By the university's LMS (37)
- By counting submitted assignments as proof of attendance (33)
- By students submitting an attendance sheet weekly (14)
- By checking attendance during Zoom sessions (10)
- By students sending notices (e.g., an email or LMS message) of their "attendance" weekly (6)
- Abandon taking attendance that semester (3)
- Other (1)

For this question, two participants gave multiple methods. Participants were also requested to explain why they selected their method(s) of choice. Presented below are the various methods, the number of open-ended responses provided by students for each method, and students' top explanations for their reasoning.

- By students submitting an attendance sheet weekly (6)
- An easy, straightforward, and/or reliable method (4)
- By students sending notices (e.g., an email or LMS message) of their "attendance" weekly (3)
- A simple action (1)
- Check student attendance during Zoom sessions (2)
- Zoom is most like face-to-face lessons (1)
- Zoom attendance taking is smooth (1)
- Count submitted assignments as proof of attendance (11)
- Assignments have submission time limits (2)

[2] This was the researcher's attendance-taking method for his 2020 spring semester classes. It involved students emailing an Attendance Record Sheet (ARS), discussed elsewhere (Rubrecht, 2020). As such, this tallied number was naturally 102 (the number of study participants). It is possible that a similar method was utilized by other instructors.

- Students must submit assignments anyway (2)
- Abandon taking attendance (1)
- Assignment purpose is for checking comprehension (1)
- Other (1)
- Mimic one teacher's policy of viewing on demand videos to count as attendance (1)

***[Q7] Should attendance be taken at university?***

This question found that roughly two thirds of the participants (67) were in favor of attendance being taken at university under normal circumstances while one third (35) were not. As with [Q6], participants were requested to give explanations, which most did, with some giving multiple reasons.

***Reasons students gave for why universities should take attendance***

- Attendance points for grading provide benefits/fair/required (for myriad specific reasons) (26)
- Attendance shows attitude/willingness/motivation for learning/participating/being proactive (14)
- Attendance policies eliminate students who do not attend yet can still get good grades (5)
- Some students won't attend and thus wouldn't participate otherwise (lazy) (3)

***Reasons students gave for why universities should not take attendance***

- University means learning on your own/taking responsibility (11)
- University is for gaining/testing new knowledge and/or cultivating personal interests (9)
- University is for people who want to learn, so they are the ones will ultimately attend (4)
- Impractical because there are too many students/it is too burdensome (4)

***[Q8] Should attendance be taken at university during RTL?***

The responses to this question were slightly more balanced than those from [Q7], with 59 students responding positively, 42 negatively.

***Reasons students gave for why universities should take attendance during RTL***

- Attendance always is (and should be) part of students' grades, as it is proper and fair classroom management (18)
- Instructors cannot monitor students well during RTL/so students won't skip classes (10)
- Student motivation becomes apparent/students are motivated to participate (6)
- It is proof of student participation (5)

***Reasons students gave for why universities should not take attendance during RTL***

- Students unable to attend/unsatisfactory environment (e.g., due to a poor Internet connection) (10)
- University is about active learning, not attendance (6)
- Students can watch on demand videos whenever (5)
- RTL is too burdensome (for both instructors and students) (4)
- Comprehending course material and completing assignments is sufficient (4)

***[Q9] Open-ended section***

This last question allowed participants to provide information or opinions not requested elsewhere on the questionnaire. Similar to previous responses, due to their varied nature, it was difficult to succinctly categorize participants' responses (18 responses were grouped into 11 categories).

- An attendance grade is good during RTL (worried about assignments/tests done remotely/now lower level of learning) (3)
- Submitting ARS weekly is too demanding/just check attendance by LMS click (3)
- Assignment submission more effective when taken attendance remotely than in face-to-face situations (2)
- If RTL, on demand videos are more efficient/convenient than setting a Zoom time (2)
- ARS is easy to use/easy to understand (2)

**Conclusions**

In analyzing the participants' responses, the following conclusions from this preliminary study were drawn.

***(1) In this new RTL situation there was a clear lack of standardized attendance taking.***

As previously explained, in face-to-face lessons pre-pandemic, most Japanese universities and their instructors typically implement attendance policies, with students' failure to adhere to them grounds for a reduction in grades or even the failing of a course. The participants all attended universities with long-standing clear and relatively strict attendance policies in place (e.g., for foreign language courses, students could miss no more than one third of the lessons). While it may have been reasonable for instructors to make ad hoc decisions about attendance in the weeks prior to the first RTL semester, as explained above, it can be speculated that institutions and instructors not taking a standardized approach in determining what "showing-up culture" (Feriazzo, 2020) would look like in RTL situations potentially negatively impacted students on two fronts.

First, not standardizing attendance taking meant that students had to figure out and keep clear in their minds the various and disparate attendance policies for all of their courses. In normal semesters, attendance is as simple as showing up to a specific location at a specific time. In RTL times, attendance could mean different things,

depending on the course (e.g., logging in to Zoom or just completing homework assignments that needed to be completed anyway). Second, since instructors did not survey students regarding their views about attendance taking (e.g., to assess if students' Wi-Fi equipment or data plans could adequately allow for Zoom attendance), some students might have had to struggle or otherwise worry about whether or not they could sufficiently participate and be considered present during RTL classes. Indeed, the researcher was asked by multiple students to inform them if the attendance sheets they had sent had arrived safely. This confusion from a lack of standardization gets compounded by the fact that roughly half of students' courses were taught by instructors who did not take attendance, which in normal times would have been unheard of.

***(2) Students generally viewed attendance – and the grades they contributed – as integral to their university courses.***

As could be seen from the students' open-ended responses, particularly to [Q7] and [Q8], some students believed that university is more about learning course content and developing oneself as a person over and above simply showing up to class. While few would argue against one of university's major roles being the opportunity for students to discover and cultivate themselves, it was clear from students' responses that many found receiving attendance points crucial to contributing to their overall course grades, a finding found elsewhere (see McVeigh, 2002). In other words, students typically found attendance grades to be that which could be relied upon to boost their grades or otherwise offset any poor grades received from other grading criteria (e.g., quizzes, final exams). As such, the participants were generally in favor of attendance being taken, both before and during RTL times. Additionally, as evinced from [Q3], only three students in this cohort would have opted to abandon taking attendance altogether in the 2020 spring semester if they were instructors, which indicates how students believe that attendance is an important and almost given part of their educational experience, particularly if they can receive a grade just by showing up to class.

***(3) Attendance is indicative of motivation or a willingness to learn.***

As was evinced from the open-ended responses in [Q7] and [Q8], several students stated that attending classes shows that they are motivated to be in the classroom and are thus expressing a willingness to learn. In a similar vein, several students expressed clear dissatisfaction with those students who either (a) need something like an attendance policy to force them to make it to class or (b) attend few lectures but are able to pass their courses anyway. In short, it seems as though the more diligent students (i.e., the ones who believe that attending lectures should be considered a given for institutional learning situations) were expressing their dissatisfaction that the less diligent students required coaxing (i.e., making attendance policies necessary in the first place) or that they could slide through without being as clearly motivated to learn and participate as they were. These responses are indicative of the fact that students, to a greater or lesser degree, know their classmates, know what goals they have for learning in general and for their various courses in particular, and that they want to the have the learning playing field as level as possible.

## Discussion and Final Remarks

As could be seen from the discussion above as well as from the findings garnered from this preliminary stage of research, both students and instructors alike have differing opinions about attendance, including its primary purpose, its ancillary functions, and its overall relevance at the university level. As of this writing (mid-November 2020) it is far too difficult to predict if the 2021 spring semester will see a return of educators and learners to the classroom or if RTL will continue. Based on the conclusions above and the fact that all relevant stakeholders are now experienced in RTL, were RTL to continue into later semesters, then it would behoove institutions and instructors to revisit the topic of attendance together so as to standardize any approach taken on the subject. This should provide the dual benefit of reducing confusion among stakeholders regarding matters of attendance and should make the reasons behind RTL attendance taking clearer for all concerned.

There remain several points of consequence that require addressing, many of which are in response to how the students answered the study's open-ended questions. First, because students are students, they are neither familiar with nor fully cognizant of the difficulties and complexities that instructors encounter as they fulfill their teaching duties, even those regarding the relatively straightforward task of taking attendance. While this fact lends some support for why instructors need not have asked students' opinions about taking attendance prior to the 2020 spring semester, it also puts perspective on students' responses to the questionnaire that showed – even as late as September 2020 – that students were not concerned about the same matters as instructors, and if they were, they were concerned for different reasons.

For instance, when asked in [Q6] how they would take attendance remotely if they were instructors, many apparently failed to grasp what instructors realized early on: there would be some students not sufficiently prepared to engage in RTL from the first week of classes (and possibly throughout the semester) for whatever reason, for instance, poor Wi-Fi, restrictive data plans, inadequate access to technological equipment at specific times, or embarrassing living situations (e.g., noisy siblings, sparse furnishings) broadcast to all through Zoom. Thus, as some students voiced support for taking attendance via their university's LMS or Zoom, which were seen to make the task "efficient," "easy," and "smooth," they made it clear that they did not fully realize the obstacles extant with such attendance-taking methods.

To give a more concrete example, taking attendance via Zoom would only be feasible for (a) relatively small classes (b) where all students were guaranteed to have access to suitable technological equipment (c) with strong and stable Internet capabilities (d) reliably (e) at a particular time of day each week. This example illustrates precisely what some instructors were worried about in the weeks prior to the 2020 spring semester: there were numerous unknowns (some of which had yet to be identified) instructors had to recognize and surmount consistently for their dozens if not hundreds of students in all of their courses. It is therefore little wonder why some instructors abandoned taking attendance remotely, at least during that first semester.

Additional evidence for the students not being cognizant of instructors' concerns regarding attendance also came from their responses to [Q4], as students only selected the options presented to them. No students ventured any additional options, such as

those technological concerns mentioned above. Furthermore, when students voiced support for assignment submission equaling attendance, they failed to take into account the fact that not all courses necessarily have assignments due each and every week of the semester. There would still need to be a way to ascertain that students are "present" even when some weeks only required students to watch an on demand video or engage in a Zoom session.

The present preliminary study was conducted as the first step of a larger study exploring Japanese university student attendance in the first year of RTL in the era of COVID-19. Further investigations will explore in greater depth the efficacy of the researcher's attendance sheet, with specific attention paid to the degree to which students engaged with it as a remote communication and feedback tool.

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# *Challenges on Teaching and Learning Japanese Literature in Brazilian Universities*

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**Abstract**
This paper presents five different challenges related to Japanese literature teaching and learning in the context of higher education in Brazil. It shows the result of two years (2016-2018) of activity teaching the disciplines Japanese Literature I to IV at one of the Brazilian public universities that offer undergraduate studies in Japanese Language and Literature. The five challenges identified (language proficiency, literary proficiency, adaptation to new technologies, content and format updating, and professors' level of interaction with students and colleagues from other institutions) are commented on and supported by facts observed during the teaching period. Mulhern's "On Teaching Japanese Literature" (1981) and Collie & Slater's "Literature in the Language Classroom" (1987) served as a theoretical basis for the development of the reflections here presented, and this paper aims at contributing to a more up-to-date approach on the given context.

Keywords: Japanese Literature, Higher Education, Literature Teaching

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## Introduction

In 2016, I was working for another university as a Japanese Literature professor, and I published a paper entitled "Reflections on teaching Japanese literature in the university" in Portuguese in a Brazilian literature journal[1]. From 2016 to 2018 (when I had to move to another city), I decided to test those reflections in practice. This paper revisits and updates the first text, adding new thoughts and the experiences I had in these two years.

This paper presents five different challenges related to Japanese literature teaching and learning in the context of higher education in Brazil. Still, I think that they are not restricted to our country. These challenges are language proficiency, literary proficiency, profiting from new technologies, content and format updating, and the level of interaction of students and professors, as well as among universities.

## Theory

There is a lot of research on foreign language teaching in Brazil, at various levels, but when it comes to research on the teaching/learning of foreign language literature, in comparison, the amount is visibly reduced. The main reason for this is that there is much more demand for language teaching than for foreign literature teaching, which is mainly restricted to higher education. Our focus is Japanese literature, but we found a ground-breaking doctoral dissertation, authored by Brazilian researcher Elisabetta Santoro (2007, p. 13), whose title in English is "From the indivisibility of language teaching and literature: a proposal for the teaching of Italian as a foreign language in courses of Letters," in which she exposes the attachment of Letters courses to the tradition of still separating linguistic and literary studies. Although her work refers to the Italian language and literature, it brings relevant inputs that well serve the research of teaching any foreign languages and their literature in Brazil.

Collie and Slater (1987), in their book *Literature in the language classroom – A resource book with ideas and activities*, point out some interesting reflections. Their approach is not limited to higher education. It has a broader scope, stimulating the use of literary texts as authentic material that promotes cultural and linguistic enrichment and provokes the reader's personal involvement with the text. Studies that show the benefits of bringing literature into the language classes are not rare; nevertheless, if we search for works that deal specifically with Japanese literature, the quest becomes more difficult. In Brazil, Silva Júnior and Souza (2013), writing on contemporary literature in the Japanese language classroom (also not restricted to higher education), share a positive experience in having literary texts as tools in the language classes. Nevertheless, we did not find any work dealing with literature classes – these restricted to the university. In the next section, there is an overview of Japanese literature disciplines of the Japanese language undergraduate courses in Brazilian universities.

[1] Unfortunately the paper was published with modifications that were not allowed, containing awkward mistakes and lacking parts (reason why it is not in the references list, having also been object of a lawsuit for moral damages that has been judged in favor of the author).

## Japanese Undergraduate Courses In Brazil – Overview

There are today in Brazil eight public universities offering undergraduate courses in the Japanese Language. There is a recently created course in a private institution, but it was impossible to find information about its program and disciplines. The following table shows the universities in chronological order of the courses' starting year, followed by the total hours of Japanese-related content (Japanese culture, language, literature, history), Japanese literature disciplines' total hours, and their percentage. It is important to note that this percentage is relative; it is not mirrored in the total number of hours of the course (which also contains other disciplines that are not considered here – Linguistics, Literary Theory, Comparative Literature, Methodology of Research and other general disciplines). The data was taken from the Japan Foundation's last published report.

| University | Starting year | Hours of Japanese-related content | Hours of Japanese Literature | Relative percentage |
|---|---|---|---|---|
| USP | 1964 | 960 | 360 | 37,5% |
| UFRJ | 1979 | 990 | 240 | 24,24% |
| UnB | 1983 | 1080 | 240 | 22,22% |
| UFRGS | 1986 | 1020 | 180 | 17,64% |
| UNESP | 1992 | 690 | 240 | 34,78% |
| UERJ | 2003 | 960 | 240 | 25% |
| UFPR | 2009 | 660 | 120 | 18,18% |
| UFAM | 2011 | 975 | 195 | 20% |

Table 1. Updated numbers from the last report by the Japan Foundation in São Paulo (see references – https://fjsp.org.br/wp-content/uploads/2017/12/LIVRETO_ Dados_ensino_lingua_japonesa_v10.pdf)

The universities with the highest relative percentage of Japanese Literature disciplines are the ones in São Paulo. Santoro (2007), when analyzing the documents of the creation of the graduate course in Italian at the University of São Paulo, states that literary studies were more valued than linguistics studies – so that most of the students had to know the language well before starting the course, having it as a pre-requisite. Being this the comprehension in the foundation of the language courses in the University of São Paulo, it is easy to understand the privileged role that literature plays in such a context, even though the Japanese undergraduate course was created only after the Italian course.

There are two kinds of Japanese undergraduate courses in Brazil: one is called "licenciatura," which forms Japanese teachers; the other is "bacharelado," and graduates in this modality may dedicate themselves to research, continuing their studies, or translation. How many graduates have jobs related to Japanese is a relevant question, but not to be addressed here. Some institutions offer only "licenciatura"; others offer the possibility of choosing between "licenciatura" or "bacharelado." The university with a lower relative percentage of Japanese literature disciplines (UFRGS) differs from the others because it offers only "bacharelado" specifically to form translators. This is visibly why, from a considerable amount of hours of Japanese-related content, the balance language-literature pends more on the first one. Nevertheless, some of their graduates have had their translations of Japanese literary

texts published recently, amidst a growing interest in Japanese literature verified in Brazil in the last decade.

The other courses keep an average of 18% to 25% of relative percentage reserved to the study of Japanese literature, and it reflects their tendency to focus more on language – some of them offer only "licenciatura"; the others, that offer either "licenciatura" or "bacharelado," have a standard curriculum for both modalities, just adding pedagogical disciplines to the "licenciatura" track.

## Challenges on Teaching and Learning Japanese Literature

From a study concluded in 2016 about teaching Japanese literature, we felt the need to expand the question, focusing on challenges instead of difficulties and adding the perspective of learning. In practical terms, which main challenges could be cited in this context? We kept the same list, emphasizing that it is not exhaustive: challenges of language proficiency, literary proficiency, profiting from new technologies (more than just adapting to them), content and format updating, and professors' level of interaction with students and colleagues from other institutions. Although they all intersect to a greater or lesser extent, we will discuss each separately to organize our reasoning better.

### 1) Challenge of Language Proficiency

Indeed, one cannot limit Japanese literature study only to those who are proficient in Japanese (Mulhern, 1981, p. 68). If this were the case, researchers from other fields (anthropology, history, social sciences, etc.) could not use Japanese literature as a source. However, for students of the Japanese language course, language proficiency is not only presumed but required. If it were possible to combine language and literature teaching fluidly, contrary to the tradition mentioned earlier, it could be a step ahead. However, as language and literature continue separated into different disciplines in all the analyzed curricula, we cannot count on it.

All courses foresee the beginning of Japanese literature classes starting from the 5th period when students have already completed four semesters of the Japanese language. The problem is that students usually start their course without knowing anything about Japanese. In most universities, students must first learn *hiragana* and *katakana*, and it takes most of the first semester. After four semesters, they must have studied about six hundred ideograms. Considering that the number of *jōyōkanji* (frequently used ideograms, listed in 2010 by the Japanese Ministry of Education and Culture) is 2,136, reading literary texts in Japanese is a painful and discouraging task, as students waste a lot of time searching for meanings of words in the dictionary - not to mention, of course, the struggle in understanding not yet studied sentence constructions and the lack of knowledge of cultural elements in the text.

Coping with the frustration generated at this point of the course is a more significant challenge for students than for professors. Working only on texts in Japanese will scare the students; using only translations, justifying that the study is purely literary and not linguistic, is a fallacy; the experience in class showed that using both texts, in Japanese and their translation into Portuguese, is a satisfactory solution for studying language and literature in the same activity. We consider this medium the most

effective, understanding that literary and linguistic studies can and should be integrated. The study of translation techniques may also be included, even if it is not a translation course. Students usually show more interest in literature when they feel they can understand it when there is a bridge-gapping from known information (Portuguese) to new information (Japanese).

Starting with contemporary literature texts (instead of classical, medieval, or modern) may make the students more secure. As most of the disciplines are arranged in chronological order, students usually have the first contact with Japanese literature through texts that are distant not only in space but in time, deepening the gap between them. In my context, this suggestion of a change in the curriculum was warmly welcomed by the students but intensely tackled by other professors, in whose opinion "such a change in order denotes amateurism and ignorance of the matter." Curriculum flexibility can be a very delicate subject.

### 2) Challenge of Literature Proficiency

Chieko Irie Mulhern (1981, p. 65), writing from the perspective of a Japanese literature professor at a university in the United States, comments that, along with the difficulties of methodology, content, and objectives, there is the fact that many students who "do not know about Asia or even Japan" are enrolled in the course; there are also students of courses other than Letters and "have no experience or interest in purely literary analysis"; students of Comparative Literature who "have much training in sophisticated analytical methods"; and students of East Asian Studies "more eager to study Japan than literature." In other words, the class is a heterogeneous group with different motivations and instruments.

It is not common in Brazil to have students out of the Letters' field in literature classes. More homogeneous groups are usually easier to manage. Making the ones who know the most help the ones who have more difficulty can be a way to make everyone's abilities develop. But this is still very general. Just as little knowledge of the language hinders the study of literature, little literature theory knowledge also does significant damage. It is not rare to see Japanese literature taught with the instruments of the Western tradition, the weight of concepts formulated in Europe and the United States, which do not fit the Eastern literatures. It is not a proposal to make this literature exotic. On the contrary: it is a proposal to analyze it with the appropriate instruments.

From the Japanese undergraduate courses in Brazil, only the UFPR (Federal University of Paraná) has a course entitled "Theory of Literature in Japanese." It covers "studies of literary genres and terminology applied to the study of elements of literary language. More than genres or terminology, studying Japanese literary theory and the concepts that are peculiar to it, as well as the process of elaboration of these concepts, also concerning the study of Japanese philosophy, history, and culture." Even if a class has a great deal of knowledge of literary theory, it will still lack elements to study Japanese literature, more specifically in undergraduate courses.

### 3) Challenge of Profiting from New Technologies

Any student of the Japanese language can benefit from numerous resources as applications or computer programs, using technology to learn from the syllabaries to *kanji*, from vocabulary to grammar structures (even separating them by groups according to the levels of the *Japanese Language Proficiency Test* - JLPT), quizzes, games, *online* dictionaries. However, when I searched for applications or programs that could contribute to the study of Japanese literature, I did not find any – at least not made for foreign learners. If they exist, they should become more easily reachable; if they do not, it is time to start producing them.

The pandemic in 2020 forced professors and students to a new dynamic in teaching and learning. Online classes became the only viable format. One may say that this shift represented the definitive insertion of technology in class. But using Zoom, GoogleMeets, or any other instrument to deliver the same class format (not in presence, but online) does not represent the profiting from new technologies to improve the quality of teaching and learning. Besides the general tools that can be used in online classes – forums, chats, collaborative platforms (like Padlet or blogging websites), and quiz creators (like Quizziz or Kahoot!), to mention some – there should be a database gathering open-access educational material of Japanese Literature.

A database like this needs to be fed with already produced materials. These resources (lesson plans, presentation slides, exercises, debate scripts, translations, interactive materials, and so on) could be shared by professors who are teaching the subject. On the other hand, sharing has to do with challenge number 5, to be addressed later in this work.

As for the classes I conducted from 2016 to 2018, I tried using the institutional Moodle platform for online courses, but students neither liked it nor knew how to use it. I also tried the Edmodo platform, but without success. Students preferred to use Facebook groups for sharing class materials. Still, since not everybody wanted to have a Facebook account, I had to rely on multiple media, and it was tiring and somewhat messy. After the pandemic, maybe most of the students and professors are more acquainted with the platforms.

### 4) Challenge of Content and Format Updating

Mulhern (1981, p. 66), when addressing the issue of content, mentions the fact that the same authors are studied, and mostly the same books, because of the translations available - and translations are often affected by market issues. She mentions the few works written by women translated into English and calls literature professors to the responsibility of offering variety in the reading lists indicated to students. In Brazil, Silva Júnior e Souza (2013, p. 11) found no women among the four Japanese writers most translated into Portuguese.[2] Today's numbers are perhaps a little different, with some titles more by Haruki Murakami, putting him ahead of Tanizaki and Oe, but certainly not yet a woman among the most translated. However, there are translations

[2] "According to the cited survey, the most translated writers into the Portuguese language are: Mishima Yukio (15 translated works), Tanizaki Jun'ichiro (11), Oe Kenzaburo (11) and Murakami Haruki (11)." (Silva Júnior e Souza 2013, p. 11)

of books by Sei Shônagon, Kawakami Hiromi, Yoshimoto Banana, and translations of short stories by Ichiyo Higuchi and Sawako Ariyoshi, as far as we know.

Still, concerning this variety, I need to share a personal experience: we study classical poetry, but not contemporary poets, like Kiwao Nomura. Maybe it happens because his work is too dense and difficult to translate. Translating poetry has more obstacles than translating prose, explaining the lack of translations of Nomura and other contemporary Japanese poets in Brazil.

It is relatively recent that research of literature on the fringes of the canon has been valued. In some cases, as in the use of literature for language teaching, the canon is replaced by other more digestible texts (Silva Júnior & Souza, 2013, p.17). It explains why writers like Nomura are still unknown. Outside this objective, the study of authors that do not belong in the canon takes place primarily in graduate studies, since in undergraduate studies, even with the participation of some students in research groups, the course timetable is limited, and, naturally, only the most famous writers are contemplated.

Being updated means also being inclusive – and inclusivity refers to gender, genre, and subject. Professors have the challenge of balancing their choices of texts, bringing together far-famed writers and not yet translated relevant ones. On the other hand, students have the challenge of imprinting a more personal touch to their autonomous study by searching for preferred themes, genres, and writers for their readings outside the duties of the Japanese Literature discipline. Students' suggestions might even become part of the course syllabus if the professor is willing to make a free start. Again, if such a degree of flexibility seems too much, the professor may allow one or two suggestions from the students and choose the primary texts.

### 5) Challenge of Interaction

The International Conference of Japanese Studies in Brazil happens biennially to exchange experiences and promote theoretical-methodological discussions. Universities may hold local events and workshops on Japan and Japanese language topics, but a more in-depth debate on literature teaching has not been noticeable recently.

The most recent material found in a debate on the teaching of literature in Brazil is from 2005, from the proceedings of the III International Congress of Japanese Studies in Brazil, in which professors Sonia Longhi Ninomiya and Luiza Nana Yoshida, from UFRJ and USP, respectively, participated in a round table discussion on the teaching of Japanese literature. Ninomiya addressed the updating of the flowchart of the UFRJ's Japanese Literature course and the content of the reorganized disciplines. Yoshida presented teaching and research at the undergraduate and graduate levels of USP and raised some challenges that we felt in our teaching practice and that were highlighted here in this work: reconciling literature for knowledge with literature for pleasure and the "ignorance of Japanese culture" – both related to the matter of literature proficiency - and also the "problem of writing/language" - this one related to the challenge of language proficiency (Yoshida, 2005, pp. 276-277).

Fifteen years later, we still face the same and other challenges. What has been done in each institution to deal effectively with them? If there were a net through which students, professors, researchers, everyone dealing with Japanese literature learning and teaching could interact regularly, maybe we could find new solutions or elaborate new strategies that could benefit everyone. However, before we create this net, we should ask: in each institution, are the professors listening to the students – and vice-versa? It seems more useful to nurture this interaction domestically before we step out to an interinstitutional initiative.

From 2016 to 2018, I had tried to hear the students' perspectives on Japanese Literature as a discipline. Some of them face it as one more discipline in which they can learn the language – literature being just a means for it. Some consider it a chance to learn about Japanese culture (but, even though culture and literature are connected, they are not the same thing). Others take it as a discipline on translation more than on literature itself. But what is Japanese Literature – the discipline? What do we want/need from it? How many hours should we separate for it? We should be talking – and listening – about it. We may unite all these perspectives and assemble them, putting them to the test – and to the text.

## Conclusion

This work is an effort to reflect on Japanese literature teaching and learning in Brazil in the university context. Maybe in other countries, other Japanese Literature professors and students struggle with similar issues, and sharing these reflections could ignite connections and promote exchanges. Solutions may arise from experience sharing.

If it is possible to study language and literature without separating them, escaping from the traditional approach, it seems that proficiency challenges (linguistic and literary) can be more quickly resolved. The updating and profiting from new technologies go together, the first being theoretical and the second, practical, applied to the need to correspond to the teaching and learning in the 21st century. Both are benefited by sharing issues and information in the interaction process.

It seems that everything begins, in fact, with interaction. Listening to the students makes all the difference. During two years of experience (2016-2018), it was clear that they need to be heard. Letting them speak and participate is a way of improving their autonomy and personalizing their study of Japanese Literature. It is not aimed at making things easier for them to pass with a good grade – it is aimed at meeting their needs and finding an acceptable way to promote better profit for teachers and learners.

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# *Lifelong Learning: Leveraging Open Educational Resources (OER) and Massive Open Online Courses (MOOCs) to Continuously Learn with Minimal Financial Investment*

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**Abstract**
This presentation will be an overview of resources for how to continuously learn with online resources for minimal cost. Open Educational Resources (OER) such as free online classes, digital textbooks, and YouTube channels will be reviewed. Massive Open Online Courses (MOOCs), Class Central and initiatives around COVID-19 and free classes will be reviewed. Subscription services like LinkedIn Learning, Udacity, Future Learn, and Udemy will be reviewed. Large businesses with free training resources such as Google, IBM, and Salesforce will be reviewed. Career pathways such as IT helpdesk, cloud administrator, and digital marketing manager will be discussed with how to take online courses for minimal cost to get official certificates to prepare you for future job opportunities.

Keywords: Professional Development, Just-In-Time Training, On Demand Training, Training, Upskilling, Workforce Development, Free Training

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## Introduction

Learning how to learn, engagement in learning new skills, and the ability to unlearn legacy skills is a cornerstone assumption in our knowledge economy. Gratton and Scott (2017) have published data talking to the increasing length of careers corresponding to increased lifespan. Thomas and Seely Brown (2011) have published data on the importance of learning new skills and the corresponding shortening of the half-life of a skill (5 years) and the shortening average tenure in a job (4.5 years). Peter Drucker is quoted as saying the only skill that will be important in the 21st century is the skill of learning new skills. In the book Learn or Die (2020), Ed Hess discusses the importance of understanding artificial intelligence, machine learning, and the jobs robots will command in the near future compared to jobs that are uniquely human. The theme is the importance of continuous learning and upskilling.

In this paper, I will review open educational resources (OER) and massive open online courses (MOOCs) that are available for free. These resources range in target audiences from K-12 through higher education to workforce upskilling. There are two types of resources that will be presented, those that are always free and those that are temporarily free due to COVID-19. For those that are always free, most are OER content or content developed by businesses so that more people become knowledgeable in using those specific technology tools. For example, OER content would be an open textbook that you can access through MERLOT and a company sponsored free resource would be Amazon Web Service (AWS) training from Amazon. The lists of OER include those that have been reviewed for quality so sites like YouTube which have hundreds of excellent education channels (Veritasium, Crash Course, Amoeba Sisters, etc) are not included in this paper. A good landing site for exploring learning content on YouTube is http://www.youtube.com/learning.

## Class Central

Class Central (http://classcentral.com) is a site where learners can review online courses with over 120,000 independent reviews by learners across dozens of platforms. This site also produces reports and is an excellent reference site for those looking to find free online courses due to COVID-19. A sample report from the site includes The Most Popular Free Online Courses, 2021 Edition (Patra, 2020) at http://classcentral.com/report/100-most-popular-online-courses-2021/. The report Free Online Learning Due to Coronavirus (Ma and Cortes Mendez, 2020) details free courses on Coursera, LinkedIn, FutureLearn, Skillshare, Udemy, Great Learning, upGrad, Netflix, Redis University, openHPI, SAP, SAS, PWYC.training, Microsoft, IBM, Oracle, Progate, Product School, Project Management Institute (PMI), Young Screenwriters, Real Python, Makerdemy, Creativebug, Milk Street, Packt, Annual Reviews, JSTOR, Unity, Fortinet, Elastic, Lightbend, and Osherove Bundle at http://classcentral.com/report/free-online-learning-coronavirus/.

## MERLOT

According to the MERLOT site (http://merlot.org/merlot) “the MERLOT system provides access to curated online learning and support materials and content creation tools, led by an international community of educators, learners and researchers.” There are tens of thousands of materials in MERLOT, many of which have gone

through a peer review process. This repository of free resources are designed to be utilized by educators incorporating content into their lessons so that the cost to students is reduced. Since many of these materials have been peer reviewed, there is a quality standard to these open resources beyond what one could find with a Google search.

**Carnegie Mellon Open Learning Initiative (OLI)**

According to the OLI site (http://oli.cmu.edu), OLI "provides dozens of college-level courses, and a platform that enables research and experimentation with any aspect of the learning experience." The main goals of OLI are to improve learning and teaching through science, democratize learning, and foster a community. Many courses on this site have nominal fees, for example, the course Modern Biology is $25 per student.

**British Columbia (BC) Campus OpenEd**

BCcampus OpenEd provides a collection of open textbooks. In addition to having their own collection of textbooks, BCcampus also publishes links to other open textbook collections. The British Columbia Open Education Librarians (BCOEL) have developed a quality rubric for selecting open textbooks that can be found at the main http://open.bccampus.ca site. Some of these other open search sites for finding OER include the Maryland Open Source Textbook Commons (MOST), Mson OER Metafinder (MOM), and the Openly Available Sources Integrated Search (OASIS).

**Arizona State University (ASU) Center for Education Through eXploration**

The ASU ETX site (http://etx.asu.edu) is a new program that provides open access to three dimensional and immersive learning experiences. A great example is one of their projects on Immersive Virtual Field Trips where one can go to Australia, United States or Mexico and explore a location immersively. Beyond the virtual field trips, there are dozens of domains covered with thousands of videos.

**Public Broadcasting System (PBS) LearningMedia**

This site (http://pbslearningmedia.org) has a range of resources targeted at K-12 students with curriculum and materials in science, mathematics, social studies, language arts, engineering, technology, health education, world languages and the arts. You can sort through resources by grade level, geographic location, or by subject. The site also has professional development resources for teachers including planning, effective instruction, assessment, and learning environments.

**Kahn Academy**

This site (http://kahnacademy.org) is another open educational resource that is mainly targeting K-12 learners. The site was originally launched by Sal Kahn and was created to help his niece to really understand her math studies. After Bill Gates famously said that Sal Kahn was his favorite teacher, the Kahn Academy site has exploded in use, expanding domain areas, target ages, and becoming integrated in

many K-12 school curriculums. Domains now include math, test prep, science, computing, arts, humanities, economics, reading, language arts, and life skills.

**Netflix/World Wildlife Foundation (WWF) Our Planet Series**

Netflix and the World Wildlife Foundation (WWF) have created a series called Our Planet. This series has full length documentaries and is posted for free on Netflix. Episodes include One Planet, Forests, Frozen Worlds, Jungles, Coastal Seas, From Deserts to Grasslands, High Seas, and Fresh Water. You can view the playlist at this site https://www.youtube.com/playlist?list=PL7rb3uMaYmjHqT_JUcQYCBa4nEtfDKuSa.

**Duolingo**

Duolingo (http://www.duolingo.com) is a language learning platform that offers free and subscription versions. This platform promises immediate feedback, personalized learning, and gamification with rewards. The site has over 35 world languages and is available in a mobile version.

**Coursera**

Coursera (http://www.coursera.org) is the most popular platform for massive open online courses (MOOCs) with over 75 million enrolled learners, more than 200 partners, and thousands of courses. Coursera was launched in 2012 and continues to grow steadily increasing the scope of their services including more partners, more content areas, and expanding from courses to certificates, degrees, and project-based courses. There are hundreds of free options and most courses can be audited for free. In the audited version, it is typical that the assessments are not available to learners. Coursera also offers robust financial aid and scholarships so anyone looking to learn on their platform is encouraged to reach out to their Coursera Help Center. Coursera has increased their social impact campaign which originally started with providing free courses to refugees. They are increasing their social impact programs and have several pilots currently including working with incarcerated adults and high school students preparing for college. Coursera also has several products including Coursera for Enterprise, Coursera for Government, and Coursera for Education.

**edX**

edX (http://www.edx.org) is another MOOC platform that has over 140 partners, 2,500 courses, and 20 million learners. edX was a joint program with Harvard and MIT. Content providers include elite universities and businesses. edX is an open source platform that allows people to download the source code and create learning tools and new features. edX is also offering stackable credentials where learners can take courses, certificate programs, microdegrees and degree programs.

**Udacity**

Udacity is a MOOC platform that specializes in technical skills. According to the http://www.udacity.com site, “only at Udacity” areas include artificial intelligence,

deep learning, digital marketing, flying car and autonomous flight engineer, self-driving cars, machine learning engineer, and robotics software engineer. Featured programs include hybrid cloud engineer, machine learning engineer, RPA developer with UiPath, agile software development, data science for business leaders, DevOps engineer, introduction to cybersecurity, intermediate JavaScript, AI for healthcare, and Sensor Fusion Engineer.

**FutureLearn**

FutureLearn (http://futurelearn.com) is a MOOC platform that was developed in partnership with the Open University in 2013. According to their site, FutureLearn has hundreds of partners around the world including many of the best universities and internationally renowned organizations. FutureLearn includes courses, microcredentials and degree programs. Many of their courses can be used for credit in the European higher education system.

**Udemy**

Udemy (www.udemy.com) is a MOOC platform that allows anyone to upload content to their site. There are thousands of content creators who post courses in virtually any topic. The mission of Udemy is to improve lives through learning and they aspire to be the leading global marketplace for learning and instruction.

**Microsoft**

Microsoft is one of enterprises that is now offering free courses and certifications to individuals that are learning how to use their technologies. Looking at the Virtual Training Days site (https://www.microsoft.com/en-us/trainingdays) one can find free virtual trainings in Azure Fundamentals, Azure Migrating Server Infrastructure, Azure Modernizing Web Applications, and Azure Intelligent Decision Making Through Modern Data Warehousing. In addition to the Azure trainings, there are also free virtual training events for Microsoft 365, Microsoft Teams, Securing Your Organization, Microsoft Dynamics, and Microsoft Power Platform.

**LinkedIn Learning**

LinkedIn Learning (http://www.linkedin.com/learning) is offering free courses through March 2021 in four horizontal LinkedIn Learning paths: 1) Job seeker - Finding a Job During Challenging Economic Times (https://www.linkedin.com/learning/paths/finding-a-job-during-challenging-economic-times), 2) Critical soft skills - Master In-Demand Professional Soft Skills (https://www.linkedin.com/learning/paths/master-in-demand-professional-soft-skills), 3) Digital transformation - Digital Transformation in Practice: Virtual Collaboration Tools (https://www.linkedin.com/learning/paths/digital-transformation-in-practice-virtual-collaboration-tools), and 4) Allyship and inclusive conversations - Diversity, Inclusion, and Belonging for All (https://www.linkedin.com/learning/paths/diversity-inclusion-and-belonging-for-all).

## Amazon

Amazon provides free training and certification opportunities for their Amazon Web Services (AWS) at their site http://aws.amazon.com/training. Amazon offers a range of services including webinars, events, online courses and online certification programs. Amazon partners with several MOOC platforms to offer their online courses on those platforms and also hosts their own content at the above site. Amazon sorts their offerings by role (architect, cloud practitioner, developer, DevOps engineer, machine learning and operations) and by solution (advanced networking, data analytics, databases, game tech, machine learning, media services, security, and storage).

## Google

Google offers many free training and certification opportunities. Google has their Digital Garage site (http://learndigital.withgoogle.com/digitalgarage) with live sessions and online courses in data, technology, digital marketing and career development. In addition, Google offers a variety of courses and certifications hosted on a variety of MOOC platforms. For example, there are twelve Google professional certification programs on Coursera including Google IT Support, Google IT Automation with Python, Google Cloud Security, Google Cloud Networking, Cloud Engineering with Google Cloud, Data Engineering with Google Cloud, Cloud Architecture with Google Cloud, SRE and DevOps Engineer with Google Cloud. Some of these certification programs are offered in Spanish and French.

## Conclusion

There are thousands of opportunities for people to find open educational resources (OER) and free or low-cost massive open online courses (MOOCs). Several popular platforms, providers, and businesses have been highlighted in this paper including MERLOT, Carnegie Mellon Open Learning Initiative (OLI), BC Open Campus, Khan Academy, Duolingo, Coursera, edX, FutureLearn, Udemy, Udacity, Microsoft, LinkedIn Learning, Amazon and Google. Due to COVID-19, there are even more opportunities to take free courses. Class Central (http://www.classcentral.com) is a great site for seeing reviews of online courses and reading reports that include lists of free courses, in-demand courses, and highest rated courses. The ability to learn and upskill is imperative for the 21st century knowledge economy. These OER and MOOCs provide ample opportunities to learn and upskill for minimal cost.

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