



Application of Differentiated Instruction on Japanese Language Proficiency Test to Build Students' Awareness of Lifelong Learning

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ABSTRACT

Along with the rapid development of technology and the occurrence of education 4.0, lifelong learning ability becomes an important element in 21st century learning. Lifelong learning ability consists of the ability to develop strategies and evaluate one's own learning, to improve knowledge, skills, and competence, so that continuous and sustainability learning habit can be built. By applying lifelong learning, students can evaluate their own learning, recognize their weaknesses and strengths, so that they can design the right learning model for the development of their knowledge. The ability to do lifelong learning is very important to be mastered by a student, so the teacher should introduce this learning model to student. On the other hand, as teacher we also conduct classroom / group learning that the differences in student's ability may vary in one class. It needs to be facilitated by designing student personal learning (Differentiated Instruction / DI) to maximize student outcome. This paper discusses how DI strategies that implemented in Japanese Language Proficiency Test: Intermediate Level (*Noryoku Shiken III*) courses can build student awareness of lifelong learning. The participant of this research is the student from Japanese Language Proficiency Test: Intermediate Level (*Noryoku Shiken III*) class in Japanese Department, in a private university in Jakarta. The result of this research is after applying DI, a good progress was seen in each student towards the achievement of JLPT N3 grades, and can create independent learning habits, so students can sustain this learning habits even after finishing this subject.

KEYWORDS

Differentiated Instruction; Japanese Language Proficiency Test; JLPT N3; Lifelong Learning

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INTRODUCTION

With the existence of education 4.0, there are many changes in the Education system. Along with the rapid development of technology, it is easier for students to get information about learning materials, not only from the lecturers, but

also from a variety of electronic devices that they can access anytime, anywhere. In addition to this, education 4.0 also emphasizes freedom in learning/student ownership (Sari & Wilujeng, 2020). This is also supported by The Ministry of Education and Culture of Indonesia, regarding freedom of learning where one of the points is the freedom to learn other subjects outside of their

study program (Kementrian Pendidikan dan Kebudayaan, 2020). On the other hand, the ability about lifelong learning and developing skills of self-learning are important elements in 21st century learning (Demirel, 2009). Lifelong learning is all learning activity undertaken throughout life, with the aim of improving knowledge, skills, and competences within a personal, civic, social and/or employment-related perspective (London, 2011). People who hope to make their way successfully in this Information Age will have to be motivated, adaptable, and capable of continuous, self-directed, lifelong learning (Spady, 1994).

Lifelong learning is also one element that supports Outcome based Education (OBE). OBE demands a commitment to continuing professional development and lifelong learning (Gandhi, 2017). OBE now also supported by The Ministry of Education and Culture of Indonesia. One of the rules used in developing assessment and accreditation instruments is an outcome-based accreditation system (*Badan Akreditasi Nasional Perguruan Tinggi*, 2017). OBE is a comprehensive approach to organizing and operating an education system that is focused on and defined by the successful demonstrations of learning sought from each student (Spady, 1994). This OBE is also one of the evaluation criteria in AUN-QA international certification, where the evaluation criteria are Outcome based accreditation at Study Program Accreditation (APS) focused on the achievement of graduate learning outcomes (ASEAN University Network, 2015). In the OBE assessment on AUN-QA at criterion 4, this is also related to lifelong learning. The teaching and learning approach should promote learning, learning how to learn and instill in students a commitment of lifelong learning (e.g., commitment to critical inquiry, information processing skills, a willingness to experiment with new ideas and practices, etc.) (ASEAN University Network, 2015).

Related to the application of lifelong learning, this paper discusses how the application of Differentiated Instruction (DI) on Japanese Language Proficiency Test: Intermediate Level (*Noryoku Shiken III*) course can support students to know and practicing about lifelong learning, so after finishing this course, students will be able to recognize and evaluating their abilities and can sustain their individual learning process in the future. Japanese Language Proficiency Test: Intermediate Level (*Noryoku Shiken III*) course, is a 5th semester's course in Japanese Literature

Department a private university in Jakarta. The application of the DI in this course is due to two reasons. First, because there is an imbalance about the ability of 5th semester student's, to the qualifications of this course. To master and pass the JLPT N3 exam for students with no prior kanji knowledge, they need to study Japanese for between 950 to 1700 hours (The Japan Language Education Center, 2015). But the accumulated Japanese Language study hour of 5th semester students are only 520 hours. It was still far enough to reach the minimum hours to master the JLPT N3 material, which is 950 hours of study. The second reason is, after doing pre-assessment of this course, there are variations in weaknesses and strengths of students at N3 level of JLPT. There are four major sections measured at JLPT at all levels, including at N3 level: vocabulary, grammar, reading dan listening. After doing pre-assessment of 62 students, there were 9 people who had weaknesses in vocabulary, 15 people in grammar, 32 people in reading, and 6 people in listening. From these 2 reasons, it was decided to use the DI in this course, so that from the imbalance of abilities, and variations in weaknesses, the goal at the end of the semester is every student could at least progress in their weaknesses.

THEORETICAL FRAMEWORK

Differentiated Instruction (DI) is a strategy in teaching that aims to maximize the diverse potential by students. There are many previous studies have discussed about DI. Quoting from some previous literature reviews, DI as a philosophy of teaching that is based on the premise that students learn best when their teachers accommodate the differences in their readiness levels, interests and learning profiles (Subban, 2006). In line with the above concept, DI is a construct that enables teachers to integrate differences between students in their classroom into everyday teaching practice (Smets, 2017). Because the emphasis of DI is on managing classrooms with differences, to maximize the potential of each learner, lecture can use variety of teaching strategies and methods in the framework of DI (Smets, 2017). Unlike handling classes in general where the lecturer teaches one material for all learners (one fits all), on DI, student's needs will be considered by the lecturer (Reese, 2011). Differentiation is not just a set of strategies, but instead it can be best described as how a teacher

chooses to respond to his/her students' needs (Reese, 2011).

Not just to maximizing the potential of different students in one class, DI is also used to facilitate different ways of learning for each learner in the class (Subban, 2006). By facilitating the personal learning style of each learner, at the end of the learning session, the course is hoped to be able to increase student's achievement. And because it uses a student personal learning style approach, teachers are able to provide a fair chance for each student to learn, create, and grow in collaborative, supportive ways, so they can feel successful. When they feel successful, the students begin the path of becoming self-directed, flexible learners and leaders, which is important as 21st century skills (Reese, 2011).

Because DI considers the personal needs of each student, before starting the lesson, there are some points that need to be considered by the lecturers. DI is complex and flexible, with ways to accommodate different learning styles, interests, prior knowledge, socialization needs, and comfort zones (Reese, 2011). Prior knowledge is one that needs to be concerned because this factor influence how easily they can understand and accommodate new learning (Westwood, 2016). By paying attention to this prior knowledge concerns, at the first meeting, it is necessary to do a pre-assessment to find out the capabilities of the students. Teachers can use evidence from pre-assessments to plan instruction based on student need (Westman, 2018). Teachers can differentiate content, process, products, assessments, and the classroom environment, taking into consideration student's learning profiles, interests, and readiness levels (Reese, 2011). Teachers proactively plan varied approaches to what students need to learn, how they will learn it, and/or how they will show what they have learned to increase the likelihood that each student will learn as much as he or she can, as efficiently as possible (Reese, 2011). This is student-centered approach, so the role of the lecturer here is more as a facilitator to students (Delisio, 2010).

Assessment in DI emphasizes more on assessment 'for' learning than assessment 'of' learning (Smets, 2017). To monitor the achievement of different targets in each student, after the pre-assessment is done at the beginning, it is also important to do some assessments regularly, so that learners can continuously reflect themselves and independently evaluate their learning (Smets, 2017; Reese, 2011).

There are many studies of the implementation of DI, especially in the foreign language learning. For example, Tomlinson describes a differentiated French I classroom with students often working with written tasks at differing levels of complexity and with different amounts of teacher support (in Smets, 2017). Gardner was doing DI on Spanish class where students read and create a graphic representation of an Aztec legend. To demonstrate their understanding, students design a movie script, create a movie, or publish an online book (in Reese, 2011). Becker, Burgbacher, and Wilhelm in Reese (2011), conduct different assessments in each class they teach, depending on the ability of the learner. Kataoka (2012) was practicing DI on Technical Japanese (JAPN422) course. That course was difficult to teach because cohort comprises a variety of backgrounds and proficiency levels. With some of similar learning outcomes for each student, for example: to develop some reading strategies appropriate to their levels, to be able to summarize information obtained from reading passages and present it all to their classmates both in speech and in writing, and to increase their knowledge of and ability to use kanji and kanji compounds. Although those learning outcomes are the same for all learners, the objectives for each student were different according to their proficiency levels (Kataoka, 2012). And Schricker prepared the students through pre-reading activities introducing the process of a science experiment recycling Styrofoam, via video tutorial, verbal explanations with pictures, and new vocabulary explanations related to the theme. Then, this process was re-explained by the student in a variety of ways depending on the student's ability, for example, matching the pictures and sentences, filling in the blanks in sentences which explain the recycling procedure, writing sentences on their own, or verbally explaining the recycling procedure (in Kataoka, 2012).

As presented above, previous researches have applied DI in Japanese lessons, but the one that focused on mastering JLPT level N3 has not been found. Hence, this research will attempt to use DI strategy which will be applied to improve Japanese language skills, especially to master JLPT level N3 skills which include vocabulary, grammar, reading and listening skills.

METHODS

The application of DI at Japanese Language Proficiency Test: Intermediate Level (*Noryoku Shiken III*) subject, was doing on odd semesters term 2018/2019.2 in Japanese Department in a private university in Jakarta. There are 62 students, who are divided into 2 classes. There were 19 meetings in 1 semester, each meeting was 100 minutes. At the first meeting the lecture explained the course flow to students and did pre-assessment to measure student's ability of the JLPT N3 level. After doing the pre-assessment, it was found that there were differences in student's ability on four parts of JLPT N3, which are: vocabulary, grammar, reading and listening. There were 9 people who had weaknesses in vocabulary, 15 people in grammar, 32 people in reading, and 6 people in listening. Learning in this course is generally divided into 2 parts, learning in the classroom and outside the classroom. There were some activities that was doing in class, such as the Table 1.

Table 1: In Class Activity.

Session	In Class Activity	Explanation
1	Introduction	Explanation of 1 semester course flow
2	Pre-assessment	To measure initial abilities & planning self-study activities outside class
3	Pre-assessment & evaluation	Discussed about the results of the pre-assessment, and planned self-study activities outside class
4-5	Grammar	Prepare & did poster presentation in group about JLPT N3 Grammars
6-7	Vocabulary	Prepare & did poster presentation in group about JLPT N3 Vocabulary
8	Listening	Practiced using JLPT N3 Listening questions
9-10	Reading	Read & discuss about flyer and JLPT N3 reading materials
-	Mid test	Created video project about own self-study activities outside class
11-12	Mid test evaluation & planning self-study activities after mid test	Gave comment on each other's videos, planned, and discussed about self-study activities after mid test

Session	In Class Activity	Explanation
13-15	JLPT N3 drilling practice phase 1	Practice & discussion
16-18	JLPT N3 drilling practice phase 2	Practice & discussion
19	Final test project explanation	Explanation about paper project
-	Final test	JLPT N3 drilling practice phase 3 & submitted paper about self-reflection of learning for 1 semester

On the outside class learning activities, students learn independently only on their weaknesses (just one of four parts in JLPT N3, vocabulary or grammar or reading or listening). DI strategy is more done on outside class activity, while in class activity, students do the same activity, such as did periodic assessments of JLPT N3 by doing 3 times drilling, did poster presentation, practiced listening JLPT N3, discussed with peer-group and lecturer about learning themes, the progress, or difficulties on their self-study activities, and so on. So, with a lot of discussion session in the classroom, student will be able to get input about their study progress both from their peers and from the lecturer, so they can make continuous improvement about their self-study activities.

Learning achievement is measured based on the results of pre-assessment, the results of drill 1, drill 2, and drill 3 on the weaknesses among four parts of JLPT N3 (vocabulary, grammar, reading, and listening). Their progress will be seen from four times drilling practices.

RESULTS AND DISCUSSION

Preparation Before Implementing DI Method

It has been mentioned before that this research narrows the analysis just to measure the increase on student's weakness among the four sections of JLPT such as vocabulary, grammar, reading and listening. The reason behind focusing on student weaknesses in these four sections of JLPT is to achieve realistic target. The very short learning time of this course, only 13 weeks or 28.5 hours, would be difficult if the authors set a high target to progressing achievement of all 4 section of the JLPT for each student. While at the first meeting in this course, students have only 520 hours

background of studying Japanese. If it is added with 28.5 hours of study in this JLPT N3 courses, the total learning hours is only 548.5 hours.

This Japanese Language Proficiency Test: Intermediate Level (*Noryoku Shiken III*) course is on 5th semester. In this semester, the courses related to Japanese language skills are not only Japanese Language Proficiency Test: Intermediate Level (*Noryoku Shiken III*). There are four other courses related to Japanese language skills. It has been mentioned previously that the Japanese Language Proficiency Test: Intermediate Level (*Noryoku Shiken III*) course is designed to help students pass the JLPT N3 certification, which also a requirement for submitting final thesis in semester 8. It has also been previously mentioned that in order to pass the certification JLPT N3, for students with no prior kanji knowledge, Japanese language learning hours are between 950 to 1700 hours (The Japan Language Education Center, 2015). So, in addition to the Japanese Language Proficiency Test: Intermediate Level (*Noryoku Shiken III*) course which is the research object in this paper, of course other courses in semester 5 that related to Japanese language skills are also contributed to increase student's study hours so that they can pass the JLPT N3 certification. The following Table 2 shows other Japanese language skills courses available in semester 5 which also support the achievement of JLPT N3.

Table 2: Japanese language skills courses in semester 5.

Course Name	Credit	Study Hour		
		Minute per Week	Minute per Semester	Hour per Semester
Intermediate Japanese (Chuukyuu Bunpou)	4	180	2430	39
Text Analysis (Chuukyuu Dokkai)	4	180	2430	39
Business Japanese II (Bijinesu Nihongo II)	2	90	1170	19.5
Japanese in Translation II (Nihongo Honyaku II)	2	90	1170	19.5
Summary of Study Hour				117

As can be seen in the Table 2, other Japanese language skills courses in semester 5, beside the

Japanese Language Proficiency Test: Intermediate Level (*Noryoku Shiken III*) course (which is the object of this study), contributed 117 hours of learning Japanese at the end of the semester 5. It was previously mentioned that in semester 5, the Japanese Language Proficiency Test: Intermediate Level (*Noryoku Shiken III*) course contributed 28.5 hours of study. So, if this adds up, at the end of semester 5, students have 145.5 hours of study Japanese. It has also been mentioned previously that the number of hours of learning Japanese language skills in the previous semester (semesters 1-4) was 520 hours. So, the number of hours of learning Japanese if accumulated in semester 5 is 520 hours plus 145.5 hours, which is 665.5 hours of study Japanese.

If we look again at the data from The Japan Language Education Center (2015), to be able passing the JLPT N3 certification, for students with no prior kanji knowledge, Japanese learning hours are between 950 to 1700 hours. Thus, the 665.5 hours of student study at the end of semester 5 is still less than the minimum study hours required by The Japan Language Education Center, which is a minimum of 950 hours. Therefore, in this research, the author does not want to make students more burdened by learning all 4 sections of the JLPT such as Vocabulary, Reading, Grammar and Listening, but focuses on improving one of the student's weaknesses among these 4 sections of the JLPT.

The novelty offered in this research is the application of DI method in Japanese language skills courses, especially in achieving the target of JLPT N3 level certification. From previous research that has been mentioned in the previous section, there is an application of DI in Japanese lessons, but it has not been focused on mastering JLPT level N3. So, in this research, DI strategy applied on Japanese language skills course, especially to master JLPT level N3 skills which include vocabulary, grammar, reading and listening skills.

The Result of DI Method Implementation

The DI strategy is applied to the Japanese Language Proficiency Test: Intermediate Level (*Noryoku Shiken III*) course to facilitate differences in the weaknesses of students that detected at the first meeting of this lecture from the pretest.

After implementing DI on this course, a good progress was seen in each student towards the

achievement of JLPT N3 especially on students' weaknesses. Table 3 below is average score on four times drilling practice and average point of progress.

Table 3: Student Achievement in One Semester.

Part of JLPT N3	Student	Average Score of				Average Point of Progress
		Pre-Assessment	Drill 1	Drill 2	Drill 3	
Vocabulary	9	49	63	76	55	16
Grammar	15	39	52	70	46	17
Reading	32	30	49	55	46	20
Listening	6	38	61	61	60	22

The "Student" column is the number of students with weaknesses between the four parts of the JLPT N3 (vocabulary or grammar or reading or listening). Pre-assessment, drill 1, drill 2 and drill 3 scores are on a scale from 0 to 100. The "Average Point of Progress" column is calculated by calculating the delta from the increase/decrease in each drill 1 to 3 compared to the Pre-assessment score, then the three deltas are taken on average.

From the Pre-assessment score, it can be seen that the score of students against JLPT N3 was very low at the beginning of the class, this was partly because their minimum study hours were not sufficient yet to take the JLPT level N3. For this reason, the DI strategy is used to maximize students' achievement, not all parts of the JLPT N3, but focused on the progress of weaknesses of each student. After applying DI in this course, especially in self-study activity outside the class, maintaining their progress by discussing at each meeting in the class, and by providing additional material in class activity, at the end of the semester there is an increase on students' score at their weak parts.

Learning Method and Assessment of DI

Learning method in the Japanese Language Proficiency Test: Intermediate Level (*Noryoku Shiken III*) course is divided in two ways, inside the classroom and outside the classroom. The DI strategy was applied on independent learning outside the classroom. The purpose of implementing the DI strategy outside the classroom is to maximize the efficiency of learning

time. In class learning held in a limited time, which is 90 minutes per meeting, and 13 meetings per semester. So that if DI is carried out in class learning, the feedback that the lecturer gives to students will not be optimal, and also there will be lack of time for periodic tests. Thus, DI is implemented outside the classroom. Learning outside the classroom is divided into several activities. After students know their weaknesses among the 4 sections of the JLPT, students will design their own learning method for one semester. Pre-test and briefing regarding the implementation of this course were carried out at the first meeting. So that at the second meeting, students will present in class to their teachers and classmates about their independent learning method plans in one semester.

Next four examples of learning activities outside the classroom in each section of the JLPT will be explained. First, for students whose pre-test results are weak in listening skills, will arrange a listening practice method in one semester, such as watching Japanese dramas/*anime*, or watching Japanese YouTube channels, or listening to Japanese songs, etc. At the beginning of self-study, students are allowed to see the subtitles while listening to the conversation, but after that, the subtitles can be changed into Japanese to confirm what has been heard, and at the final stage, the students can remove the subtitles altogether, and capture the meaning they have heard. Every time they do independent learning, students will write journals about what they are doing, and what new things they have discovered and learned.

Second, for students whose pre-test results are weak in reading skills, they will arrange a reading practice method in one semester. For example, doing reading activities such as reading comics/novels/ textbooks/social media influencers channel written in Japanese/news websites/popular websites in Japanese on various topics. Every time they do self-study, students will write journals about what they are doing, what new things they have discovered and learned, such as new vocabulary they find in reading, difficult grammars to understand, and the differences between various media they read.

Third, for students whose pre-test results are weak in vocabulary skills, they will arrange a new vocabulary learning method for JLPT N3 level in one semester. Practicing new vocabulary is similar to reading practice, but the difference is that in reading ability, reading is more emphasized from many media with various themes. However, for

this vocabulary learning, students may focus on practicing the vocabulary contained in the JLPT N3 questions, and memorize it in a regularly, until at the end of the semester, students will memorize all the JLPT N3 vocabulary list.

Fourth, for students whose pre-test results are weak in grammar skills, they will arrange learning method for JLPT N3 level grammars in 1 semester. This learning method is basically similar with vocabulary learning. The students listing all JLPT N3 grammars obtained from certain JLPT Practice sources, such as textbooks/JLPT Exercise websites, etc. Collected grammars then listed and studied regularly, then the students can do various practice, for example by reading correct examples of sentences using the grammar, and practicing making their own sentences with that grammar, etc.

The mid-term and final exams are carried out in different ways. The midterm exam is done by making videos. Each student made a video presenting their independent learning activities. The content of the video must include the learning method that was conducted, the advantages, disadvantages, and their self-reflection and evaluation of learning for half semester. Then this video is posted on LMS (Learning Management System) where all students can see the video and give each other feedback. So that each student also gets feedback from the lecturer and their peers. At Midterm exam, interview test also conducted. The interview test was to prove the progress of the students. In this test, the lecturer will ask randomly about what the student has learned to prove their ability.

In class session after the midterm exam, students were do self-evaluation about their learning method that has been conducted during this half semester by considering the suggestions from the teacher and their peers. Their self-study method can be adjusted based on the feedback. Then, self-study will continue until before final exam. For the final exam, there were two kinds of test. The first one is theory test. The student has to answer JLPT N3 questions which are the same as the pre-test questions, which aims to measure student progress for one semester. The second test is making portfolio. This portfolio contains a complete journal of learning carried out for one semester. Parts in this portfolio are the learning methods, their self-reflection and evaluation when doing self-study such as what kind of new things they are learned, the feedback given by the teacher & peers in every learning session in the classroom,

their response to the feedback given by the teacher and peers, adjustment of their learning methods (if any) made after receiving feedback, reflections from three times drill activities with JLPT N3 questions in class, such as reflection after taking tests, increasing or decreasing achievements, learning tips with this method that contains advantages and disadvantages, then the portfolio ended with self-evaluation of their self-study and learning in the classroom for one semester.

After measuring students' weaknesses at the beginning of the course, encouraging students to continuously do self-study activities outside the classroom, which their progress on self-study were continually evaluated at each meeting on class, making video project about the implementation and evaluation of self-study activity at the mid test, then discussed it on class, and do the self-evaluation paper project telling about their learning activity in one semester at the end of semester, students become familiar to conducting periodic self-evaluations of their learning style. This is very important to build students' habits and awareness of the need for self-study. This self-study and self-evaluation habits will also contribute to the lifelong learning process of students in their future. Even if at the end of the Japanese Language Proficiency Test: Intermediate Level (*Noryoku Shiken III*) course there are students who still do not meet the minimum criteria to be able to pass JLPT N3, with application of DI method during self-study outside the classroom, students will get use to conduct self-study and self-evaluation. The process of independent learning and the ability to conduct self-evaluation periodically is a very important part in implementing lifelong learning. After this course completed, students will have basic skills to do lifelong learning, that they can continue these activities in many aspects of their lives, not only to achieve JLPT N3 certification. This is very important because lifelong learning is one of the most important parts of the 21st century learning.

CONCLUSION

The application of DI in Japanese Language Proficiency Test: Intermediate Level (*Noryoku Shiken III*) course can introduce and familiarize students to recognize their weaknesses, learn independently outside the classroom, and evaluate continuously to obtain continuous improvement

against their weaknesses. So, the result is a good progress on their weakness.

In this study, DI strategy was just applied to increase the progress on their weakness at one part of JLPT N3 (vocabulary or grammar or reading or listening). For further research, DI can be applied based on student interest. By designing learning based on student interest, can become effective tools to support learning in the differentiated classroom, because student interests are a powerful motivator (Subban, 2006). Then, this strategy can also be applied in classes that have lots of different student characteristics, for example the inclusion of students with disabilities, students with language backgrounds other than English, students with imposing emotional difficulties and a noteworthy number of gifted students, reflect this growing diversity (Subban, 2006).

REFERENCES

- ASEAN University Network. (2015). Guide to AUN- QA Assessment at Programme Level. Bangkok.
- Badan Akreditasi Nasional Perguruan Tinggi. (2017). Peraturan Badan Akreditasi Nasional Perguruan Tinggi Nomor 4 Tahun 2017 Tentang Kebijakan Penyusunan Instrumen Akreditasi Akreditasi. Jakarta.
- Delisio, E, R. (2010). Developing Differentiated Roles for Effective Teachers. Retrieved from <http://www.ascd.org/publications/newsletters/education-update/feb10/vol52/num02/Developing-Differentiated-Roles-for-Effective-Teachers.aspx> .
- Demirel, M. (2009). Lifelong learning and schools in the twenty-first century. *Procedia Social and Behavioral Sciences*. 1 (1), 1709–1716. DOI: [10.1016/j.sbspro.2009.01.303](https://doi.org/10.1016/j.sbspro.2009.01.303)
- Gandhi, P, O. (2017). *Outcome Based Focused Education Overview*. Retrieved from https://www.researchgate.net/publication/317209834_Outcomes_Based_Education.
- Kataoka, H, C. (2012). Differentiated instruction in Japanese language classes. *Proceedings of National Symposium on Japanese Language Education* (31-48).
- Kementrian Pendidikan dan Kebudayaan. (2020). Merdeka Belajar: Kampus Merdeka. Jakarta.
- London, M. (2011). *Lifelong Learning: Introduction*. *The Oxford Handbook of Lifelong Learning*. Retrieved from Oxford Handbooks Online.
- Reese, S. (2011). Differentiation in the language classroom: How do you support every learner? *The Language Educator*, 6 (4), 40-46.
- Sari, W. K. & Wilujeng, I. (2020). Education change in the industry 4.0: Candidate science teacher perspective. *Journal of Physics: Conference Series*. DOI: [10.1088/1742-6596/1440/1/012090](https://doi.org/10.1088/1742-6596/1440/1/012090)
- Spady, W, G. (1994). *Outcomes Based Education: Critical Issues and Answers*. Arlington: American Association of School Administration.
- Subban, P. (2006). Differentiated instruction: A research basis. *International Education Journal*, 7(7), 935-947. Retrieved from researchgate.
- Smets, W. (2017). High quality differentiated instruction – a checklist for teacher professional development on handling differences in the general education classroom. *Universal Journal of Educational Research*, 5(11), 2074-2080. Retrieved from researchgate.
- The Japan Language Education Center. (2015). JLPT Study Hour Comparison Data 2010-2015. Retrieved from <https://web.archive.org/web/20151117033458/http://www.studytoday.com/JLPT.asp?lang=EN>
- Westman, L. (2018). DIFFERENTIATED INSTRUCTION: Succeeding with Differentiation. Retrieved from <https://www.edutopia.org/article/succeeding-differentiation>
- Westwood, P. (2016). Teaching Methods: Differentiated instruction. Retrieved from <https://www.teachermagazine.com.au/articles/teaching-methods-differentiated-instruction>