Implementation of Differentiated Learning based on Local Wisdom in ELT

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Abstract

An educational process must be able to analyze and meet the learning needs of each student. Differentiated learning is an educator's effort to adjust learning activities in the classroom to fulfill the learning needs of students related to readiness to receive new material, students' interests and learning profiles or learning styles of diverse students. Differentiated learning can be done by 1) content differentiation; 2) process differentiation; and 3) product differentiation; The integration of local wisdom in learning gives a real picture to students so students can understand material concepts more easily. This research is qualitative research using a phenomenology approach with data collection methods using observation, interviews and questionnaires where the data subjects were 20 high school and vocational high school English teachers in Batang Regency who applied differentiation learning. According to the results of the research conducted, it was found that 12 teachers applied content differentiation, 14 applied process differentiation, 15 applied product differentiation, and among these results some teachers applied a combination of differentiation in their learning.

Keywords: Differentiated Learning, Local Wisdom, ELT.

Education in Indonesia in the era of the Merdeka Curriculum faces a big challenge, namely improving quality after learning loss due to the pandemic while increasing the competence of students, institutions and educators in order to achieve the ideals of Indonesian Education based on the Pancasila Student Profile (Wahyudi & Miftahusyai'an, 2023). The process of implementing the Merdeka Curriculum, teachers should apply the principles of active, innovative, fun learning and 4C (Critical Thinking, Collaboration, Creativity, Communication) so that learning becomes meaningful (Hidayati et al., 2022).

In Merdeka Curriculum, learning focused more on essential knowledge and developing students' abilities according to their phases (Pertiwi et al., 2023).

Differentiated Learning

Differentiated learning is an educator's effort to adjust learning activities in the classroom to meet the learning needs of students related to readiness to receive new material, students' interests and learning profiles or learning styles of diverse students(Wulandari, 2022). Differentiated learning can be done by 1) content differentiation, 2) process

differentiation, and 3) product differentiation (Andini, 2022). The implementation of differentiated learning must be adjusted to the needs of students (Aprima, D., & Sari, 2022). Especially in English language learning where there are 4 basic abilities that students must master, namely: 1) Speaking, 2) Writing, Listening, and Reading (Magableh, I. S. I., & Abdullah, 2020).

Batang Regency is located in the northern part of Java Island, has a unique topography consisting of coastal to mountainous areas, which gives rise to various characteristics and diverse local wisdom. Various forms of population livelihoods, community beliefs, natural resources and local culture develop according to the character of the environment in each region. One of the traditional arts "*Babalu*" is a regional art of Batang district that is starting to become extinct in the form of musical theatre combined with dance movements depicting stories of struggle and life of the Batang people (Lia Agustina, 2021) (Endarini A, 2018). Another wisdom is "*Nyadran*" which is a form of gratitude from the Batang community but has a different way of implementation, in coastal areas it is carried out by *larung laut* but in the mountains with *sedekah bumi*. Such differences are faced by students in their daily lives (Huda Shofyana et al., 2022).

Local Wisdom Integration

Learning can be more meaningful if it is synchronized with the real conditions in the environment around where students live and school (Anida & Eliza, 2021). The integration of local wisdom including local culture that needs to be preserved has multiple impacts in addition to preserving the culture, it can also promote culture to the younger generation and the potential for regional tourism(Linaria, et al 2023).

There are some advantages in integrating local wisdom into learning, they are: 1) it can be a means of learning to become a smart, clever, and wise person, 2) local wisdom values are transformed in students to form a positive personality (Sulianti, A., et al, 2019). This research uses a Phenomenological approach, which explains natural phenomena by emphasizing the meaning, perspective, and experience of participants (Badil, et al, 2023). This approach explored the experience of the data subject (Aditama, M G, Amelia, R and Pravitasari, 2022). The approach taken in this study is to study the real experiences of teachers in integrating the local wisdom of Batang Regency in Differentiated Learning at school to meet learning objectives and student needs according to the implementation of the Merdeka Curriculum.

The application of differentiated learning has been carried out by previous researchers (Evendi et al., 2023) which described differentiated learning in mathematics learning. This research was conducted at SMPN 4 Kragilan in the even semester of the 2021/2022 academic year, with the research subject being class VII D with 36 students. Auditory 9 students, Visual 15 students and Kinesthetic 12 students according to the purpose of implementing differentiated learning. As a result, content, process, product, and learning environment or classroom climate are four areas of differentiated learning that are controlled or influenced by the teacher.

The study of differentiation was then developed by Widiastuti (2023) who described the implementation and assessment of differentiated learning on anecdotal material for high school students. Using questionnaires and interviews with Indonesian language teachers in class X. The results of the research findings on the assessment of the differentiation component of the process are well implemented in two aspects, namely aspects of how to deliver material and aspects of variations in activities to understand material based on location.

The differentiated learning intervention on English learning strategies had also been described by Anggaraeny, et al (2023) analyzing teachers' strategies in teaching English using differentiated learning. Using

case study as the method, the data was analyzed using triangulation. The results showed that differentiated learning is the process of modifying instruction to suit the needs of individual students, and as a solution to students' needs.

Yani, et al. (2023) analyzed the implementation of diagnostic assessment to determine students' learning style profile in differentiated learning in primary schools. Using data collection techniques of observation, documentation and interviews, the results showed that diagnostic assessment to determine students' learning style profiles had a good effect in differentiated learning in thematic learning in elementary schools through process differentiation, content differentiation and product differentiation that was in accordance with the principles of differentiated learning.

Furthermore, Kusuma, et al (2023) developed a differentiated learning model based on character values in local wisdom in the perspective of global education in elementary schools. With the R & D method, the results of this study can be synthesized that differentiated model development research is learning to mix differences to get information or ideas obtained by elementary school students and the role of teachers is very important in differentiated learning so as to influence motivation in providing student needs, and being able to build harmony for students and teachers.

From the literature discussed, differentiated learning is applied in accordance with existing topics and learning materials and the majority in basic education, but the literature that discusses differentiation based on local wisdom is still limited.

In our recent research (Aditama, M G & Sugiharto, 2021) we found that improving teachers' competence in learning is essential to improve the quality of education. This ability is in line with improving teachers' pedagogy skills (Aditama et al., 2022). Students' mastery ability in learning is strongly influenced by the

learning media and strategies used (Aditama, 2021). The integration of local wisdom in learning English can increase student interest and make it easier for students to master basic English skills (Huda Shofyana et al., 2022). The application of learning integrated with the surrounding environment can simultaneously instill character education in learning (Aditama, et al., 2022). The previous research is focused on the application of Differentiated learning in primary school level and some of them were focused on the teachers' competences. None of them were specifically focused on the application of various kinds of differentiated learning by teachers in their learning activities. Also, there are still shortcomings in meeting the needs of students evenly so that further research is needed to improve the results and appropriate learning methods. Therefore, this research is proposed to develop differentiated learning based on local wisdom in the Merdeka Curriculum. Based on this, the problem formulations raised in this study are 1) how is the implementation of differentiated learning based on local wisdom in the Merdeka Curriculum? and 2) what kind of learning methods are applied by teachers in implementing differentiated learning based on local wisdom?

Method

The subjects in this study are teachers of English subjects at the high school and vocational school levels in Batang Regency who apply differentiated learning based on local wisdom in the Merdeka Curriculum. The data sources in this study are questionnaire results, interview answers and method descriptions and documentation. Data sources are recorded in the form of forms, while documents can be photos or files of learning media applied by the subject. Furthermore, the data is coded to be grouped and then analyzed the model of implementing differentiated learning carried out by the teacher.

The data collection technique was carried out by observation, questionnaires,

and interviews addressed to 20 high school and vocational English teachers in Batang Regency by involving students who had participated in FGDs as research assistants. The questionnaire is a set of written questions submitted to respondents to be filled in independently without interference and influence from other parties (Sugiyono., 2019). The data analysis technique carried out in this study is to interpret the data that has been collected through a phenomenological approach which seeks to explain natural phenomena by emphasizing the meaning, perspective, and experience of participants. The phenomenological approach is used to explore the experiences of data subjects. By using phenomenological approach, it attempted to explain natural phenomena by exploring the meanings, perspectives and experiences of participants (Aditama et al., 2023). Phenomenological approach has the purpose to explore the experience of the subject data (Aditama, et al., 2022).

The data analysis technique used in this research is to interpret the data that has been collected (Sugiyono., 2019) In general, the data analysis steps are:

1. Data reduction, by identifying the data obtained.
2. Data Presentation, by classifying the types of differentiated learning carried out by teachers and real examples of learning methods applied by teachers at school.
3. Drawing Conclusions, by compiling hypotheses on the results of data acquisition and classification as well as other supporting results obtained in research activities.

Results and Discussion
Differentiated Learning Applied by Teachers

Based on the results of collecting data from 20 English teachers as subject, the results are as described in Table 1.

Based on the data, the application of differentiated learning carried out by English teachers has different variations. There are some who only apply one type of

differentiation method, there are those who apply a combination of differentiation in their learning. The application of Differentiated Learning and the combination carried out by teachers are presented in Table 2.

Table 1 – Kinds of Differentiation Learning

Kinds of Differentiated Learning	Number of Teachers	Percentage
Content Differentiation	12	60%
Process Differentiation	14	70%
Product Differentiation	15	75%

Table 2 – Application of Differentiated Learning.

Application of Differentiated Learning	Number of Teachers
Content Differentiation	6
Process Differentiation	7
Product Differentiation	10
Content – Process Differentiation	4
Content – Product Differentiation	2
Process – Product Differentiation	3

From the data obtained, product differentiation is the type of differentiation that is most widely applied by English teachers in Batang regency.

Learning methods applied by teachers in implementing differentiated learning.

The application of differentiated learning in each type by English teachers in Batang Regency is carried out through the use of teaching methods such as follows:

Content Differentiation

Based on the data obtained, the form of Content Differentiation was applied using Problem based Learning such as working in groups to build strong communication and coordination. The description of the learning steps was obtained as follows:

Theme : Active learning using barcodes.
Topic: Offering help in different daily situations.
Learning Steps:

1. Students scan the barcodes that contain various kinds of offering materials. There are videos, written texts, infographics,

and audio.

2. Students take notes and discuss offering expressions based on the materials in the barcode.

3. Students perform a role play dialogue about offering.

The integration of local wisdom in the form of this differentiation method is by setting various daily situations and in situations in the local environment such as: helping to pick chilies, bringing harvested rice, bringing fish, selling goods in the market, and situations related to local livelihoods in the area around the school.

The steps of implementing the method are considered as good learning. it is supported by the interview results to the teacher who stated:

Data: 04/SMK/2023

> "*Dengan menggunakan barcode dan memasangnya di berbagai tempat di sekolah, dapat merangsang siswa untuk bergerak aktif. dengan bergerak dan memahami secara bersamaan membuat siswa merasa senang dan konten serta tujuan pembelajaran dapat tersampaikan dengan baik.* [By using barcodes and installing them in various places in the school, it can stimulate students to move actively. by moving and understanding simultaneously makes students feel happy and the content and learning objectives can be conveyed well.]"

Utilizing reading materials with varying levels of readability is a strategy of content differentiation; presenting concepts through sounds and images; utilizing peer reading partners; and meeting in small groups to reteach concepts or skills to difficult students or to expand thinking and skills. Skills to difficult students or to extend the thinking and skills of advanced students (Kusuma et al., 2023).

Process Differentiation

Based on the data obtained, the form of Process Differentiation was applied using Project based Learning such as working in groups to build strong communication and coordination. The example of learning method was explained as follows:

Theme : Fun Learning by arranging Puzzles.
Topic : Learning Several Kinds of text about Local (Narrative, Descriptive, Recount, Hortatory, News Items)

Learning Steps :

1. Dividing students into several small groups.

2. Putting together a puzzle of various types as a group.

3. After the puzzles are constructed, explain the content, purpose, structure and language features of the Texts.

4. Dividing one group into two parts of the task, 2 people present the results of the discussion, the other 2 people go around to gain knowledge from other teams about other kinds of Texts.

5. Formative assessment and reflection.

The integration of local wisdom factors in learning this Text material is by providing topics, contents and forms of situations embedded in the text. for example: the folklore about Batang, Legend of Alas Roban, description of Babalu, news of Nyadran tradition, etc. The steps of implementing the method are considered as active and fun learning. it is supported by the interview results to the teacher who stated:

Data: 09/SMA/2023

> "*Dengan menggunakan puzle sebagai media, memberikan siswa tantangan untuk memecahkan secara individu dan kelompok. Koordinasi dan kerjasama antar siswa juga dapat dilatih bersamaan dengan proses pemahaman isi materi didalam puzle.* [By using puzzles as media, it gives students the challenge to solve individually and in groups. Coordination and cooperation between students can also be trained along with the process of understanding the content of the material in the puzzles.]"

Students in the process differentiation strategy collaborate in groups to discuss problem-solving strategies; Students who need additional help may be placed in a group by the teacher, who can additional assistance may be placed in a group by the teacher, who can group them according to their mapping

needs; The instructor will facilitate this group discussion. Process Differentiation is focused in process of learning where the teacher can observe the improvement of the students (Tri Fanny Anggraeny & Dew, 2023).

Product Differentiation

Based on the data obtained, the form of Product Differentiation was applied using Project based Learning such as working in groups to build strong communication and coordination. The example of learning method was explained as follows:

Theme : Practicing Communication through Time.

Topic : Asking and giving opinion about Time in daily usage.

Learning Steps:

1. Students look for friends to make an appointment with according to the numbers shown in the clock they wrote.
2. Students are asked to draw a clock by writing the numbers 3,6,9, and 12.
3. Students makes expression of asking for opinions at 12 o'clock, expressing opinions at 3 o'clock, expressions of agreeing and disagreeing at 6 o'clock.
4. Students create a dialogue using the expressions they have learned.
5. Practice the dialogue in front of the class & practice with Google assistant, make a mini drama about time, etc.

Synchronization of local wisdom in the application of this method is to create a situation and context for the use of time that is adjusted to the daily activities of the community. for example, when going to work, returning from work, when doing a traditional activity, when commemorating an event or other major activities. The steps of implementing the method are considered as active and fun learning. it is supported by the interview results to the teacher who stated:

Data: 17/SMK/2023

"*Komunikasi menggunakan angka dan waktu masih menjadi kesulitan bagi siswa, walau dalam percakapan sehari - hari mereka lancar namun jika menemui angka dan bentuk waktu pasti terjeda ada beberapa yang kesulitan. Dengan mengunakan metode ini saya ingin memacu siswa untuk berlatih dan mengexplore secara mandiri, siswa pun juga dapat praktik secara langsung dengan teman lain.* [Communication using numbers and time is a challenge for students, although in daily conversation they are fluent, but when they encounter numbers and time forms, there are definitely some who have trouble. By using this method, I want to encourage students to practice and explore independently, also students can practice directly with other friends.]"

Student assignment variation is one aspect of the product differentiation strategy. Students' interests can be used as a basis for differentiation. They can be given the option to choose the submission method or instrument for the assignment. For example, it can be derived as an outline or text, as a video, or in another format according to the layout information we already have. Product Differentiation gives students opportunity to explore their creativity in making learning product (Kusuma et al., 2023).

Conclusion

Knowing and meeting students' needs in learning is the main goal in an education system. A teacher is faced with many students who have their own uniqueness and learning needs. Based on the research result, the teachers have their own creation in designing the learning process. Product Differentiation was applied by 75% of teachers and become the most used differentiated learning method by teacher in their learning plan. Some teachers also applied combination of differentiated learning to maximize their learning plan. The uniqueness of everyone's needs and ways of learning must be different, so it is very important to apply a differentiated learning model that can provide freedom to each student to maximize their way of learning. Differentiated learning can be done by 1) content differentiation, 2) process differentiation, and 3) product differentiation. Each of them can maximize students'

uniqueness. In this Merdeka Curriculum, the application of learning not only focused on content but also in context, it is important to integrate daily situation and environmental situation in learning. Linking learning with real situations that exist around students' lives can provide a real picture to students and enable students to understand the content of the material and the objectives of learning competencies. Learning becomes easy and fun but still provides meaning and sustainability.

Acknowledgment

References

Aditama, M G, Amelia, R and Pravitasari, H. (2022). Implementation of character education in English language learning for junior high school. *Jurnal Education and Development*, 10(3), 367–370. https://doi.org/10.37081/ed.v10i3.4097

Aditama, M G & Sugiharto, P. A. (2021). Improving Students' English Pronunciation by Using Hypermedia in E-Learning Activity. *EDUKASIA: Jurnal Pendidikan Dan Pembelajaran*, 2(1), 117–126. https://doi.org/10.33399/edukasia.v2i1.41

Aditama, M. G., Shofyana, M. H., Muslim, R. I., & Pamungkas, I. (2022). Peningkatan Kompetensi Guru dalam Project Based Learning melalui Temu Pendidik Daerah. *Buletin KKN Pendidikan*, 4(1), 90–98. https://doi.org/10.23917/bkkndik.v4i1.

Aditama, M. G., Sugiharto, P. A., Istiqomah, L., & Hisyam, F. N. (2023). Integrating Multiple Intelligence Test into Diagnostic Assessment in ELT. *International Social Sciences and Humanities*, 2(2), 358–363.

https://doi.org/10.32528/issh.v2i2.250

Aisyah Agustin Wahyudi & Muhammad Miftahusyai'an. (2023). Implementasi Profil Pelajar Pancasila di MTSN 1 Kota Malang. *Dinamika Sosial: Jurnal Pendidikan Ilmu Pengetahuan Sosial*, 2(1), 34–46. https://doi.org/10.18860/dsjpips.v2i1.2117

Andini, D. W. (2022). Differentiated Instruction: Solusi Pembelajaran Dalam Keberagaman Siswa Di Kelas Inklusif. *Trihayu: Jurnal Pendidikan Ke-SD-Anian Pendidikan*, 2(3). https://doi.org/DOI: 10.30738/trihayu.v2i3.725

Anida & Eliza, D. (2021). Pengembangan Model Pembelajaran Saintifik Berbasis Kearifan Lokal untuk Perkembangan Kognitif Anak Usia 5-6 Tahun. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 5(1). https://doi.org/DOI: 10.31004/obsesi.v5i2.898

Aprima, D., & Sari, S. (2022). Analisis Penerapan Pembelajaran Berdiferensiasi Dalam Implementasi Kurikulum Merdeka Pada Pelajaran Matematika SD. *Cendikia : Media Jurnal Ilmiah Pendidikan*, 13(1), 95–101. https://www.iocscience.org/ejournal/index.php/Cendikia/article/view/2960

Badil, ., Dildar Muhammad , D. D. M. ., Zeenaf Aslam , Z. A. ., Kashif Khan , K. K. ., Anny Ashiq, A. A., & Uzma Bibi, U. B. (2023). The Phenomenology Qualitative Research Inquiry: A Review Paper. *Pakistan Journal of Health Sciences*, 4(3), 9–13. https://doi.org/10.54393/pjhs.v4i03.626

Endarini A. (2018). Pelestarian Kesenian Babalu di Sanggar Putra Budaya Desa Proyonanggan Kabupaten Batang. Unnes Eprint-Sendratasik. https://doi.org/DOI: 10.31237/osf.io/q5rxh

Evendi, H., Rosida, Y., & Zularfan, D. (2023). Pembelajaran Berdiferensiasi dalam

Pembelajaran Matematika di Kurikulum Merdeka SMPN 4 Kragilan. *JOONG-KI : Jurnal Pengabdian Masyarakat*, 2(2), 181–186.

Hidayati, N., Hidayati, D., Hani Saputro, Z., & Lestari, T. (2022). Implementasi Pembelajaran Projek pada Sekolah Penggerak di Era Digital. *Journal of Education and Teaching (JET)*, 4(1), 68–82. https://doi.org/10.51454/jet.v4i1.200

Huda Shofyana, M., Giri Aditama, M., Iqbal Nugroho, H., & Tri Asmoro, H. (2022). Integrating Local Wisdom in Project-Based Learning to Improve Post-Pandemic English Learning. *ENGLISH FRANCA : Academic Journal of English Language and Education*, 6(2), 291. https://doi.org/10.29240/ef.v6i2.5418

Kusuma, anti Y., Sumianto, & Aprinawati, I. (2023). Pengembangan Model Pembelajaran Berdiferensiasi Berbasis Nilai Karakter dalam Kearifan Lokal pada perspektif Pendidikan Global di Sekolah Dasar. *Jurnal Pendidikan Dan Konseling*, 5(1), 2936–2941. http://journal.universitaspahlawan.ac.id/index.php/jpdk/article/view/11446

Lia Agustina, P. L. (2021). Nationalism Value in Babalu Art in Batang District. *Jurnal PPKN*, 9(1), 39–51. https://doi.org/10.2019/jppkn.v9i1.65

Linaria Arofatul Ilmi Uswatun Khasanah, Izza Eka Ningrum, M. M. H. (2023). Pengembangan Game Edukasi Berbasis kearifan Lokal Berorientasi dalam Peningkatan Kemampuan Membaca Permulaan di Sekolah Dasar. *JURNAL BASICEDU*, 7(1), 760–770. https://doi.org/10.31004/basicedu.v7i1.4539

Magableh, I. S. I., & Abdullah, A. (2020). On the Effectiveness of Differentiated Instruction in the Enhancement of Jordanian Students' Overall Achievement. *International Journal of Instruction*, 13(2), 533–548. https://doi.org/https://doi.org/10.29333/iji.2020.13237a

Pertiwi, P. D., Novaliyosi, N., Nindiasari, H., & Sukirwan, S. (2023). Analisis Kesiapan Guru Matematika dalam Implementasi Kurikulum Merdeka. *JIIP - Jurnal Ilmiah Ilmu Pendidikan*, 6(3), 1717–1726. https://doi.org/10.54371/jiip.v6i3.1435

Sugiyono. (2019). *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. Alfabeta.

Sulianti, A., Safitri, R. M., & Gunawan, Y. (2019). Implementasi Pendidikan Kewarganegaraan Berbasis Kearifan Lokal dalam Membangun Karakter Generasi Muda Bangsa. *Integralistik*, 30(2), 100–106. https://doi.org/10.15294/integralistik.v30i2.20871

Tri Fanny Anggraeny, & Dew, D. N. (2023). An Analysis of Teacher Strategies In Teaching English Using Differentiated Learning. *EJI (English Journal of Indragiri): Studies in Education, Literature, and Linguistics*, 7(1), 129–146. https://ejournal.unisi.ac.id/index.php/eji/article/view/2282

Wulandari, A. S. (2022). Literature Review: Pendekatan Berdiferensiasi Solusi Pembelajaran dalam Keberagaman. *Jurnal Pendidikan MIPA*, 12(3), 682–689.

Yani, D., Muhanal, S., & Mashfufah, A. (2023). Implementasi Assemen Diagnostic Untuk Menentukan Profil Gaya Belajar Siswa Dalam Pembelajaran Diferensiasi Di Sekolah Dasar. *Jurnal Inovasi Dan Teknologi Pendidikan JURINOTEP*, 1(3), 241–360. https://doi.org/10.46306/jurinotep.v1i3

Yuanita Widiastuti, Abdul Rani, S. W. (2023). Implementasi dan Asesmen Pembelajaran Berdiferensiasi pada Materi Anekdot Untuk Siswa SMA. *Semantik*, 12(1), 61–74. https://doi.org/10.22460/semantik.v12i1.p61-74