

DEVELOPING ENGLISH MATERIALS FOR AUTOMOTIVE ENGINEERING CLASSROOM

A Thesis

*Submitted to the English Language Education of Postgraduate Program of State
Islamic Institute of Palopo to Conduct Thesis to Completing Masters Level Studies*



IAIN PALOPO

Written By

ST. RISMAWATI NASIR

NIM. 22.0504.0007

**ENGLISH LANGUAGE EDUCATION POSTGRADUATE PRO-
GRAM STATE ISLAMIC INSTITUTE OF PALOPO
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2024**

THESIS APPROVAL

A Thesis entitled "**Developing English Materials for Automotive Engineering Classroom**" written by "**St. Rismawati Nasir**" Student Identification Number "**2205040007**", student of the IAIN Palopo Postgraduate Tadris English Language Study Program, which has examined in the **MUNAQASYAH** session of the research on **Friday, 13rd of September 2024**, which coincided with **9 Rabiul Awal 1446 H**, and accepted as a requirement for obtaining a Master's degree in the field of Tadris English Language (M.Pd.).

Palopo, 13rd of September 2024

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PREFACE

الْحَمْدُ لِلَّهِ رَبِّ الْعَالَمِينَ، وَالصَّلَاةُ وَالسَّلَامُ عَلَى أَشْرَفِ الْأَنْبِيَاءِ وَالْمُرْسَلِينَ،
وَعَلَى آلِهِ وَأَصْحَابِهِ وَمَنْ تَبِعَهُمْ بِإِحْسَانٍ إِلَى يَوْمِ الدِّينِ، أَمَّا بَعْدُ

The author wishes to thank Allah SWT, who always bestows His kindness and affection, for allowing him to finish writing this thesis with the title “Developing English Materials For Automotive Engineering Classroom”, after going through a fairly long process.

Shalawat and greetings are always welcome to the Prophet Muhammad SAW, his family, friends, and Muslims. This thesis was written as part of the requirements for obtaining a master's degree in Islamic religious education from the State Islamic Institute (IAIN) Palopo. Although this thesis is far from ideal, it was done with assistance from numerous parties, direction, and inspiration. As a result, the author extends immeasurable appreciation, fully sincere and sincere, to:

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2. Prof. Dr. Muhaemin, M.A. As director of the IAIN Palopo Postgraduate Program, Dr. Helmi Kamal, M.HI. As Deputy Director of Postgraduate Studies at IAIN Palopo.
3. Dr. Wisran, S.S., M.Pd. as Head of English Language Education Postgraduate Program at IAIN Palopo, Dewi Furwana, S.Pd.I, M.Pd. as Secretary of

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5. All lecturers and staff of IAIN Palopo who have educated the author while at IAIN Palopo and provided assistance in compiling this thesis.
6. Especially to my beloved parents, Mr. Drs. Muhammad Nasir and Mrs. Mahlamang, my beloved husband Yakub, S.Pd who always gives me encouragement and prayers to remain consistent in completing my college assignments, and also my beloved children Sitti Hafizhah Yakub, Achmad Faiz Khairullah, my beloved brothers Sukriady, Abdul Muin, Abdul Hafid Nasir, Nur Afiah Nasir, Muliani Nasir and Nur Faidah Nasir Thank you for your support and prayers.
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8. To all my comrades in arms, students of the 2022 IAIN Palopo postgraduate English Tadris Study Program (especially the TBI class) who have provided

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Hopefully what we do is worthy of worship in the sight of Allah swt., and all the efforts we make will be made easier by Him, Aamiin.

Palopo, August 31th, 2024

The Researcher,

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With all awareness and consciousness, the researcher who sign bellow, pronounces that this is literary work of researcher herself. If it is proven that this thesis was duplicated, copied or created by someone else, in whole or in part, then the use of this thesis will be invalid and will be cancelled.

Palopo, 13rd of September 2024
Researcher



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ABSTRACT

St. Rismawati Nasir, 2024. *Developing English Materials for Automotive Engineering Classroom.* Thesis of Postgraduate English Education Study Program, State Islamic Institute of Palopo. Supervised by Rustan Santaria dan Sukirman.

This study aims to design, implement, and evaluate English materials tailored to the needs of students majoring in automotive engineering. The research employed the Research and Development (R&D) methodology, following the ADDIE development model, with a comprehensive needs assessment conducted to identify key technical vocabulary relevant to the field of automotive engineering. The target English materials were developed by incorporating authentic texts, technical terminology, and task-based activities relevant to the automotive engineering context. Testing was conducted on a selected sample of 25 students from the automotive engineering class, while the effectiveness was evaluated through pre-and post-tests. The results demonstrated a significant improvement in students' proficiency in technical English, particularly in reading technical manuals. Furthermore, the study revealed an increase in student engagement and motivation due to the alignment of the materials with their chosen major. This research contributes to improving the quality of English language teaching. It has implications for curriculum design in technical education, emphasizing the importance of integrating language instruction with technical content to prepare students for the global automotive industry.

Keywords: English Materials Development, Vocational High School, Automotive Engineering Major.

Verified by UPB



ABSTRAK

St. Rismawati Nasir, 2024. *Pengembangan Materi Bahasa Inggris untuk Kelas Jurusan Otomotif*. Tesis Program Studi Pendidikan Bahasa Inggris, Institut Agama Islam Negeri Palopo. Dibimbing oleh Rustan Santaria dan Sukirman.

Penelitian ini bertujuan untuk merancang, menerapkan, dan mengevaluasi materi yang disesuaikan dengan kebutuhan siswa jurusan teknik otomotif. Metode penelitian yang digunakan adalah Penelitian dan Pengembangan (R&D) dengan mengikuti model pengembangan ADDIE, dimana penilaian kebutuhan yang komprehensif dilakukan untuk mengidentifikasi kosakata teknis utama yang penting untuk bidang teknik otomotif. Materi target bahasa Inggris dikembangkan dengan menggabungkan teks asli, terminologi teknis, dan aktivitas berbasis tugas yang relevan dengan konteks teknik otomotif. Pengujian dilakukan pada sampel 25 siswa di kelas teknik otomotif hasil seleksi, sementara tingkat efektifitasnya dievaluasi melalui pra dan pasca tes. Hasil pengujian menunjukkan adanya peningkatan yang signifikan dalam kemahiran bahasa Inggris teknis siswa, khususnya dalam membaca manual teknis. Selain itu, studi ini juga mengungkapkan adanya peningkatan keterlibatan dan motivasi siswa disebabkan adanya kesesuaian materi dengan jurusan yang dipilih. Penelitian ini dapat berkontribusi dalam meningkatkan kualitas pembelajaran. Penelitian ini berimplikasi pada desain kurikulum dalam pendidikan teknik yang menyoroti pentingnya integrasi instruksi bahasa dengan konten teknis dalam mempersiapkan siswa dalam menghadapi dunia industri otomotif global.

Keywords: Pengembangan Materi Bahasa Inggris, SMK, Jurusan Otomotif.

Diverifikasi oleh UPB



ملخص

سَيَّي رَسْمَوَاتِي نَاصِر، 2024. تَطْوِير مَادَّة تَعْلِيم اللُّغَة الإِنجِلِيزِيَّة لِتَخْصِص مِيكَانِيكَا السِّيَارَات. رَسَالَة مَاجِسْتِير فِي بَرْنَامِج تَعْلِيم اللُّغَة الإِنجِلِيزِيَّة، الجَامِعَة الإِسْلَامِيَّة الحُمُومِيَّة (IAIN) بِالوَبُو. بِإِشْرَاف رُوسْتَان سَانْتَارِيَا وَسُوكِير مَان.

تَهْدَف هَذِهِ الدَّرَاسَة إِلَى تَصْمِيم، وَتَطْبِيق، وَتَقْيِيم مَادَّة تَعْلِيمِيَّة مُتَوَافِقَة مَعَ احْتِيَاجَات طُلَّاب تَخْصِص مِيكَانِيكَا السِّيَارَات. اعْتَمَدَت الدَّرَاسَة عَلَى مَنَهْج البَحْث وَالتَّطْوِير (R&D) وَفَقًّا لِنَمُودِج ADDIE لِلتَّطْوِير، حَيْثُ تَمَّ إِجْرَاء تَقْيِيم شَامِل لِلاَحْتِيَاجَات لِتَحْدِيد المَفْرَدَات الفَنِيَّة الرُّبُوسِيَّة المُتَعَلِّقَة بِمِجَال مِيكَانِيكَا السِّيَارَات. تَمَّ تَطْوِير مَادَّة اللُّغَة الإِنجِلِيزِيَّة المُسْتَهْدَفَة مَن خِلَال دِمِج النُّصُوص الأَصْلِيَّة، وَالمِصْطَلَحَات التَّقْنِيَّة، وَالأَنْشِطَة المُسْتَنَدَة إِلَى المِهَام ذَات الصِّلَة بِسِيَاق مِيكَانِيكَا السِّيَارَات. تَمَّ اخْتِبَار المَادَّة عَلَى عِيْنَة مَن 25 طَالِبًا مُخْتَارًا مَن تَخْصِص مِيكَانِيكَا السِّيَارَات، وَتَمَّ تَقْيِيم فَعَالِيَّة المَادَّة مَن خِلَال اخْتِبَارِيْن قَبْلِي وَبَعْدِي. أَظْهَرَت النُّتَاجُ تَحْسَنًا كَبِيرًا فِي كِفَاءَة الطُّلَّاب فِي اللُّغَة الإِنجِلِيزِيَّة التَّقْنِيَّة، خَاصَّة فِي قِرَاءَة الكُتُبَات الفَنِيَّة. عِلَاوَة عَلَى ذَلِكَ، كَشَفَت الدَّرَاسَة عَن زِيَادَة فِي تَفَاعُل وَدَافِعِيَّة الطُّلَّاب نَتِيجَة تَوَافُق المَوَاد مَعَ تَخْصِصِهمُ المُخْتَار. يَمْكَنُ أَن تُسَهِّم هَذِهِ الدَّرَاسَة فِي تَحْسِين جُودَة التَّعْلِيم، وَلِهَا تَأْثِيرَات عَلَى تَصْمِيم المِنَاهِج فِي التَّعْلِيم المِهْنِي، حَيْثُ تُسَلِّط الضُّوء عَلَى أَهْمِيَّة دِمِج تَعْلِيم اللُّغَة مَعَ المَحْتَوَى التَّقْنِي لِإِعْدَاد الطُّلَّاب لِمُوَاجَهَة صِنَاعَة السِّيَارَات العَالَمِيَّة.

الكلمات المفتاحية: تطوير مادة اللغة الإنجليزية، المدرسة الثانوية المهنية، تخصص ميكانيكا السيارات.

تم التحقق من قبل وحدة تطوير اللغة



CHAPTER I

INTRODUCTION

A. Background

The perspective of the Islamic religion, seeking knowledge is permitted by Allah SWT, who says in the Qur'an, *"Allah will elevate several degrees (levels) of those who believe among you and those who are knowledgeable (given knowledge) and Allah is the Most High." know what you are doing."*

The verse above explains that people who believe and have knowledge will obtain a high position. The faith that one has will encourage a person to seek knowledge, and the knowledge that one has will make one realize how small humans are before God, so that a feeling will grow for God to do what He has forbidden. As described in Qs. Al-Mujadalah/58:11 :

يَا أَيُّهَا الَّذِينَ آمَنُوا إِذَا قِيلَ لَكُمْ تَفَسَّحُوا فِي الْمَجَالِسِ فَافْسَحُوا يَفْسَحَ اللَّهُ لَكُمْ ۗ وَإِذَا قِيلَ انشُرُوا فَانشُرُوا فَأَنشُرُوا لِرَفْعِ اللَّهِ الَّذِينَ آمَنُوا مِنْكُمْ ۗ وَالَّذِينَ أُوتُوا الْعِلْمَ دَرَجَاتٍ ۗ وَاللَّهُ بِمَا تَعْمَلُونَ خَبِيرٌ ﴿١١﴾

Translation:

Believers, rejoice! If you are told, "Give space in the assemblies," then create space, and Allah will undoubtedly make space for you. And when it says, "Stand up," then stand up; undoubtedly, Allah will elevate the degree of those among you who have been given wisdom and those who believe by a few degrees. Moreover, Allah is aware of your actions. ¹

Minister of National Education Decree No. 22 of 2006, concerning Co

¹Kementerian Agama RI, *Cordova Al-Qur'an Dan Terjemah*, ed. by Tim Syamil Quran, I (Bandung: Syamil Quran, 2012),hal. 543

tent Standards, states that the purpose of English language learning in Indonesia is directed so that students have the ability to develop limited oral communication competencies to accompany actions (language accompanying action) in the context of school, have awareness of the nature and importance of English to improve the nation's competitiveness in a global society and develop students' understanding of the relationship between language and culture. The skills that are absolutely possessed by vocational high school students are skills that can support their lives in the future so that students can compete in the world of global competition. Therefore, competitive readiness is needed which is supported by hard skills and soft skills in the process.

According to the Technical Instructions, English language learning in vocational high schools aims to equip students with the ability to communicate in the context of communication materials needed for their expertise program both orally and in writing, communicate in everyday life according to global demands and develop communication to a higher level. According to UUSP No. 20 of 2003, SMK is a level of education that prepares its graduates to face the world of work in a particular field. SMK is a level of education that has adaptive, normative and productive subjects.²

Stated that meaningful learning materials will help students in building an understanding that includes the capacity and structure to develop and apply

² Agus. Pahrudin, *'Buku: Pendekatan Saintifik Dalam Implementasi Kurikulum 2013 Dan Dampaknya Terhadap Kualitas Proses Dan Hasil Pembelajaran Pada Man Di Provinsi Lampung.'*, 2019.

knowledge creatively, flexibly and appropriately in certain situations. So that in order to deliver learning materials, the right method must also be chosen as explained by Martinis Yamin that the learning method is part of an instructional strategy which is a way to present, describe, give examples, and provide training to students to achieve certain goals.³ In addition to interesting teaching materials, the method used by the teacher in presenting the teaching materials must also be appropriate. The development of teaching materials is a process that involves and includes many activities, namely planning, adapting, writing, teaching and evaluating the teaching materials. The methods that can be used in developing teaching materials include adopting teaching materials, adapting teaching materials and writing teaching materials.

Furthermore, the development of teaching materials can be done through several stages, namely: 1) formulating learning objectives, 2) determining the appropriate approach/method for developing materials, 3) determining the sequence of content/topics based on themes, topics and language functions, 4) carrying out adoption activities, adapting or modifying certain parts, 5) conducting field trials, 6) conducting reflection/revision of teaching materials 7) writing/finalizing products as teaching materials.⁴ Vocational education is a bound skills education, which has a program that is adjusted to the needs and capabilities of the school which aims

³ M. Sobry. Sutikno, 'Strategi Pembelajaran. Penerbit Adab',.

⁴ Syaiful Musaddat and others, 'Kelayakan Pengembangan Bahan Ajar Digital Berkearifan Lokal Sebagai Bahan Literasi Bahasa Berbasis Kelas Serta Pengaruhnya Terhadap Karakter Sosial Dan Keterampilan Berbahasa Siswa Sekolah Dasar', *Jurnal Ilmiah Mandala Education*, 7.3 (2021), pp. 312–28, doi:10.36312/jime.v7i3.2123.

to provide provisions for having basic skills according to the interests and needs of the community.⁵ argues that in addition to academic ability and skills and their interest in the world of work, self-concept also influences a student's career choices. All of these opportunities can be obtained at SMK.

The availability of good and relevant textbooks is one of the factors that support the success of the learning process in the classroom. This is because textbooks are a source of learning in obtaining information and developing knowledge. So, a textbook should be able to reflect the learning objectives and competencies of students. The main part of the textbook is the content which is part of the teaching material used in learning.

In reality, the English teaching materials used are still general for Senior High Schools and Vocational High Schools that can be used by all majors. While each major in the school has specific learning objectives that are expected in the use of English. Especially for Vocational High Schools, English teaching materials that are in accordance with each major's competency are still not available. One example is in the Automotive Engineering major which is related to the achievement of graduate competencies who are expected to be able to use English as a foreign language and international language to facilitate communication both verbally and in writing in the world of work later. In line with this, English language skills are very much needed when they work in the industry.⁶

⁵ Musaddat and others.

⁶Utami, Sri, Wijang Sakitri and Lesta Karolina Br Sebayang., “Peningkatan Kualitas Sumber Daya Guru Dan Siswa Sekolah Menengah Kejuruan (SMK) Melalui Pengembangan Inovasi Bahan Ajar Berbasis English For Specific Purposes (ESP).”, *Jurnal Abdimas* 20.2, 2016, pp. 125-132.

At the initial analysis stage, there is no English material developed according to the characteristics and needs of students as expected by the competency achievements that can build meaningful learning. The material taught is not related to student competencies in the Automotive Engineering department specifically. The effort to solve this problem is to create an English Language which is packaged inside Automotive nuance textbook for vocational high schools majoring in Automotive Engineering that is appropriate in terms of content, language, presentation and curriculum.

In creating a material structure, creating a hierarchical material structure is one of the supporters for carrying out integrative reconciliation of Ausubel's theory and then formulating an Advance Organizer. Advance organizers can be done in two ways, namely: 1) linking or connecting the subject matter with the structure of student knowledge. 2) organizing the material studied by students.

Developed English material textbooks for automotive classes based on student needs, which are considered effective and valuable for Vocational High School students, because the textbooks are in accordance with indicators and relevant to students' specific needs and goals in their academic and vocational activities.⁷ This underlines the importance of creating English textbooks that suit the needs and goals of vocational education, which can ultimately improve the quality of English language teaching.

Also stated that contextual learning materials can support students' language

⁷ V. U. Arianti, A., Nurnaningsih, & Pratiwi, 'Developing English Textbook Based on Students' Needs for Vocational High School.', *ISETH: International Summit on Science Technology and Humanity*.

learning achievements, which also supports their future careers. Overall, the studies mentioned above strongly indicate that learning materials in vocational schools must be designed carefully to include any material related to automotive issues. Several studies emphasize the need to create English language teaching materials that are tailored to the majors and needs of students in the automotive field.⁸

English learning for high school and vocational students is different, because vocational students need special materials related to the chosen fields and skills or known as English for Specific Purposes (ESP), so, it is important to develop English teaching materials for vocational schools to be able to use English in certain fields.⁹ In the literature, it is stated that the different needs in English language learning become a benchmark for the importance of developing teaching materials for English language materials, especially vocational students for automotive engineering classes.

Learning English for high school and vocational school students is different, because vocational school students need special material related to their chosen fields and skills or known as English for Specific Purposes (ESP), so it is important to develop English teaching materials for vocational schools so that they are able to use them. English in certain fields¹⁰ In this literature, it is stated that differences in

⁸ A. Wijayanti, F. I., & Nugroho, 'Glish Material Needs of Automotive Technology Students: An Esp Approach.', *ETERNAL: English, Teaching, Learning, and Research Jurnal*, 7(1), 2021, pp. 152–167.

⁹L. M. D. Adiwijaya, P. A., & Wedyanthi, 'Analisa Kebutuhan Dalam Pengembangan Bahan Ajar Digital Bahasa Inggris Pariwisata Di Sekolah Menengah Kejuruan.', *Edukatif: Jurnal Ilmu Pendidikan*, 4(1), (2022), pp. 1536–1543.

¹⁰Adiwijaya, P. A., & Wedyanthi.

needs for learning English are a benchmark for the importance of developing English language teaching materials, especially for vocational students for automotive engineering classes.

Limited English teaching materials affect student achievement, especially for vocational ones. Meanwhile, learning English really supports their competence according to their skills and the relevance of the material to their major or expertise must also be determined so that there is no gap between the English language material related to the major they choose.¹¹ The challenge of vocational schools is to be able to provide human resources that meet the demands of the industrial world and be able to compete in it, so vocational schools must be able to facilitate them so that they are ready to work in the industrial world whose demands and challenges are increasingly stringent. One of the facilities that can be provided is to develop English language teaching materials that are appropriate to the profession that vocational school students are pursuing. So, in this research, Masyhud conducted training and assistance to create English language teaching materials for vocational school teachers.¹²

Nowadays, English is widely used in all digital literacy such as social media, communication tools, public places, this happens because English is considered a unifying language that can be understood by everyone in the world. So it is natural

¹¹Marbun, E., & Kalsum. Ginting, T. E. B., 'Pengembangan Bahan Ajar Membaca Bahasa Inggris Berbasis Pendekatan Genre Untuk Siswa Kelas X Jurusan Tata Kecantikan SMK Pariwisata Imelda Medan.', 32(1), 2021.

¹²Masyhud., 'Pelatihan Dan Pendampingan Pembuatan Bahan Ajar Bahasa Inggris Bagi Guru Sekolah Menengah Kejuruan Muhammadiyah Kota Batu. Selaparang.', *Jurnal Pengabdian Masyarakat Berkemajuan*, 4(2), 2021, pp. 483–491.

that English has a very relevant function in communication.¹³ Based on this, preparing the younger generation to face today's world can start by providing easy learning facilities, especially English specifically for vocational students.

The development of communication is very crucial, in the absence of correct communication, people from other countries will experience difficulties in communicating/connecting with each other. Therefore, good communication using a unifying language (International Language) is really needed. In this case, several countries that use a second language, namely English, almost require their citizens to master and be proficient in English.¹⁴ In order to be able to compete in the job market, both nationally and internationally, it is important to master English, considering that we are in the era of globalization.¹⁵ The need for English language skills in the current era is nothing new. Technological advances, increasingly advanced civilization, global communication, open up opportunities for anyone to be able to interact in various fields.¹⁶ One important factor in increasing natural resource capabilities is through teaching and learning English. In the 5.0 era, experts in science and technology must understand English well.¹⁷

¹³D. Farhana, F., Suryadi, A., & Wicaksono, 'Pengembangan Bahan Ajar Berbasis Digital Pada Mata Pelajaran Bahasa Inggris Di SMK Atlantis Plus Depok.', *Jurnal Instruksional*, 3(1), 2021.

¹⁴ Farhana, F., Suryadi, A., & Wicaksono.

¹⁵Bunga Shafira et al., 'Program Pelatihan Bahasa Inggris Untuk Meningkatkan Keterampilan Berbahasa Inggris Pada Peserta Pelatihan Di Pusat Pelatihan Kerja Daerah Jakarta Pusat.', *Jambura Journal of Community Empowerment (JJCE)*, 4(1), 2023, pp. 111–117.

¹⁶Berlinda Mandasari et al., 'Pendampingan Pembelajaran Bahasa Inggris Bagi Siswa-Siswi SMA/MA/SMK Di Desa Purworejo Lampung Tengah.', *Community Development Journal*, 3(1), 2022, pp. 332–338.

¹⁷Kunci, K., & Yudha Pratama, R., Habibi, F., 'Pembelajaran Prezi Pendidikan Tindakan Kelas Bahasa Inggris, M. Penerapan Model Pembelajaran Dengan Menggunakan Media Prezi Untuk Meningkatkan Pemahaman Peserta Didik Pada Mata Pelajaran Bahasa Inggris Di Sekolah Menengah Kejuruan.', *In Jurnal Pendidikan Teknologi Informasi*.

The challenges of the era of globalization supported by advances in technology and science currently make understanding and using English a crucial thing. Foreign languages, especially English, have become a global need to master and learn. Learning a language is closely related to learning communication, both verbally and in writing.¹⁸ English is the most important communication tool as well as one of the life skills that must be possessed by someone, especially students, in order to improve the quality of resources in the future and to continue their education at university level.¹⁹

English education has become important because of the impact of globalization and technological advances. English provides access to knowledge, employment opportunities and cultural exchange.²⁰ English is a skill that every working person is expected to be capable of, therefore having the ability to speak English is an important part of the job requirements.²¹

English includes 4 skills, namely listening, speaking, reading and writing. These four skills are integrated and absolutely used every day in both formal and informal situations, for example in daily conversations, office meetings, business

¹⁸Bungsu Keumala Sari et al., 'Urgensi Kemampuan Berbahasa Inggris Era Globalisasi.', *Jurnal Malikussaleh Mengabdi*, 2(2), 2023, pp. 2829–6141.

¹⁹Elva Utami et al., 'Pelatihan Bahasa Inggris Bagi Siswa/Siswi SMA Di Kota Bengkulu.', *Abdine: Jurnal Pengabdian Kepada Masyarakat*, 3(1), 2023, pp. 113–120.

²⁰Risqi Aamarullah & Fadila Farasda. Nursakina Husen, Mariana Kader, Rosita Abas, 'Inovasi Pembelajaran Bahasa Inggris: Optimalisasi Kosakata Melalui Teknologi Audio-Visual Di SMK Negeri 3 Tidore Kepulauan.', *Barakati: Journal of Community Service*, 2(1), 2023, pp. 13–19.

²¹Rosni Harahap & Mahrani., 'Persepsi Kemampuan Bahasa Inggris Terhadap Dunia Lapangan Kerja (Daerah).', *Jurnal ESTUPRO*, 5(1), 2020, pp. 1–11.

presentations and standard rules of Standard Operating Procedure (SOP).²²

When learning a language, the things you learn are what you see around you and this is a contextual learning model that will be applied in everyday life. This happened to vocational engineering class students at the Palopo vocational high school. Students' needs in learning English are always related to the major they choose.

In this era of free trade, competition in the world of work will become increasingly fierce, especially in the labor sector because workers not only have to compete with workers in their own country but also compete with workers from neighboring countries or other countries in general. Indonesia, in this case, must be ready and able to produce graduates from both high school and university levels. In this case, one of the sectors highlighted is SMK (vocational high school) because graduates from this SMK are prepared and expected to be able to immediately enter the world of work when they graduate.²³ Vocational High Schools (SMK) are one of the education sectors in Indonesia that have a greater impact in providing workforce stimulus that is ready and skilled to contribute directly and professionally to the development of world industry.²⁴ Learning materials or teaching materials in language learning can be interpreted as anything that can be used to assist teachers in helping

²² Namely Muchtar & Gusri Emiyanti Ali., 'Pengembangan Bahan Ajar Bahasa Inggris Teknik Listrik Berbasis Multimedia. Bidang Ilmu Administrasi, Akutansi, Bisnis Dan Humaniora', 2019, pp. 441–446.

²³ Indra Sudrajat, & Alviaderi Novianti. Martina Mulyani, Retno Wiyati, 'Pentingnya Bahasa Inggris Di Era Globalisasi: Edukasi Ada Siswa/i SMK.', *Jurnal Aksara Raga*, 4(2), 2022, pp. 72–75.

²⁴ Septian Aep Nugraha & Mansyur Srisudarso. 'Meningkatkan Kemampuan Bahasa Inggris Siswa Dengan Pendekatan English for Specific Purpose (ESP) Pada Kurikulum SMK Pusat Keunggulan.', *PRIMER: Jurnal Ilmiah Multidisplin*, 1(5), 2023, pp. 529–535.

students learn languages. These teaching materials can be in the form of textbooks, workbooks, cassettes, CD-rooms, videos, photocopies of handouts, newspapers, paragraphs written on the board; everything that presents or informs about the language being studied.²⁵

The main objectives of developing teaching materials for teachers are factors of effectiveness, efficiency and consistency with established skills.²⁶ And the existence of teaching materials can help students understand various skills sequentially and coherently, so that students can learn all the competencies studied in a complete and integrated manner.²⁷

B. Formulation of The Problem

Based on the background of the problem, the researcher formulated the problem as follows:

1. What are the needs of automotive engineering classroom regarding to English materials ?
2. What is the effective design of English materials for automotive engineering classroom?
3. What is the validity of develop to English materials for automotive engineering classroom ?

²⁵ Pande Agus Adiwijaya, & Luh Made Dwi Wedyanthi. 'Analisa Kebutuhan Dalam Pengembangan Bahan Ajar Digital Bahasa Inggris Pariwisata Di Sekolah Menengah Kejuruan.', *Edukatif: Jurnal Ilmu Pendidikan*, 4(1), 2022, pp. 1536–1543.

²⁶ S. Verawati, V., & Juhairiah, 'Pengembangan Bahan Ajar Elektronik Berbasis Multimedia Menggunakan Flip PDF Pada Mata Pelajaran Bahasa Inggris.', *VOX EDUKASI: Jurnal Ilmiah Ilmu Pendidikan*, 14(1), 2023, pp. 111–120.

²⁷ Ratih Indah Setyaning Pandulu & Durinta Puspasari., 'Pengembangan Bahan Ajar Interaktif E-Mod Pada Materi Khalayak Dan Etika Profesi Humas Di SMKN 2 Kediri.', *Jurnal Pendidikan Tambusai*, 6(2), 2022, pp. 15291–15304.

4. How is the effectiveness to English materials for automotive engineering classroom?

C. Research Objectives

The objectives of this research when related to the problem formulation are as follows:

1. To analyze needs of English materials for automotive engineering classroom.
2. To design English materials for automotive engineering classroom.
3. To validity of English materials for automotive engineering classroom
4. To test the effectiveness of English materials for automotive engineering classroom

D. Benefits of Research

The benefits of this research can be divided into two parts, namely:

1. Theoretical Benefits

It is expected that the theoretical benefits of this teaching material will be an effective choice for use by students in automotive engineering vocational classes as interesting and enjoyable English teaching materials to increase English vocabulary knowledge.

2. Practical Benefits

- a. It is expected that this research can be an alternative solution in dealing with a problem so that it can be a motivation for students in automotive engineering vocational classes to be diligent in improving their English vocabulary.
- b. Facilitate educators in teaching English Vocabulary
- c. Help students in automotive engineering vocational classes know the various

vocabularies used in daily activities related to their majors

E. Expected Product Specifications

The product specifications expected in this research and development are as follows:

- a. Front and back page covers
- b. List of Contents
- c. Acknowledgments
- d. Subject Matter
- e. Write's Profile
- f. The writing guide is written in Arial Rounded MT Bold and Gill sans ultra bold condensed, Font size 10 and 12, letters on A4 paper size with a specially designed format according to the aesthetics of automotive and has 31 pages.
- g. Product Limitations

The product created by the researcher is English teaching material specifically created for automotive engineering major students. The product created can only be accessed in the form of a teaching material book which is currently only applied at SMKN 2 Luwu.

F. Development Assumptions and Limitations

Assumptions and limitations in research and development are:

1. Assumptions
 - a. The process of preparing the product went through several revisions to produce a valid learning device before use.
 - b. The products used can be an alternative learning source for Automotive Engineering students

2. Development limitation
 - a. The product being developed only includes alternative vocabulary frequently used in daily activities
 - b. This product trial was only carried out on students majoring in automotive engineering at SMKN 2 Luwu totaling 25 people.
 - c. This product development was carried out over a period of three months, one month of data collection, one month of implementing the product being developed and one month of processing data which includes presentation in the form of a thesis.

CHAPTER II

THEORETICAL REVIEW

A. Relevant Research

Some research results that have relevance to this research including Haryudin et al, (2020), Lestari & Priyana (2020) and Salman M.Noer (2019).

1. Research by Haryudin et al, (2020)²⁸ The Tittle is An Analysis of Developing English Teaching Materials at The Vocational High School in Cimahi

A study reported their research findings with several key points: 1) Students in the vocational high school displayed a high level of motivation to learn English. However, they faced certain obstacles in their learning journey. 2) The teaching materials being used in the school did not fully align with the specific needs and expectations of the students in preparing for their future careers. 3) There was a gap between the content provided and the practical requirements of the job market. 4) Authentic and industry-specific materials were lacking, which hindered the ability of students to gain practical, job-related language skills. 4) The development of teaching materials at the school has not seen substantial innovation or improvement. The materials remain predominantly textual and traditional. 5) Teachers encountered challenges in developing teaching materials. These challenges included a lack of knowledge, limited access to experts in material development, and insufficient training and resources for creating effective teaching materials. This research has similarities with the researcher's, namely that it both analyzes the development of

²⁸ Acep Haryudin, Yana, and Efransyah, 'An Analysis of Developing English Teaching Materials at The Vocational High School in Cimahi', *Jurnal Ilmiah P2M STKIP Siliwangi*, 7.1 (2020), pp. 11–20.

English language teaching materials in vocational schools, the availability and suitability of English language teaching. Teaching materials according to students' needs, especially teaching materials/materials that students study according to the level of need in the world of work, especially for vocational school students, the difference is that the research method uses a qualitative descriptive method while the researcher uses the RND method.

2. Research by Lestari & Priyana (2020),²⁹ The title Developing English Reading and Writing Materials for Automotive Engineering Program in Vocational High School

Emphasized the crucial need for relevant teaching materials in the automotive field, such as automotive-based readings and vocabulary. This need arises from the strong demand within the automotive industry for vocational graduates who possess competence in this specialized area. This research has similarities with the researchers, namely that they both identified the needs of students in the Automotive Engineering Study Program class to develop English language that is appropriate for reading and writing learning materials and have the same development procedures as the researchers and both have needs analysis data which shows that, in reading learning, students want to learn simple instructions and vocabulary items relevant to the automotive field. This research is a development research using the Jolly and Bolitho model with several adaptations. The development procedures include needs analysis, syllabus design, learning material development, expert

²⁹ Endang Lestari and Joko Priyana, 'Developing English Reading and Writing Materials for Automotive Engineering Program in Vocational High School', *Jurnal Pendidikan Vokasi*, 10.2 (2020).

assessment, field testing, and material evaluation. The subjects of the study were 64 students of class XI Light Vehicle Engineering (TKR) at Vocational High School (SMK) X. The needs analysis data showed that, in learning to read, students wanted to learn simple instructions and vocabulary relevant to the automotive field. They also wanted to learn to write letters and make simple reports relevant to the automotive field. Regarding theoretical validation, the feasibility of the learning material was categorized as "very good" according to experts with an average score of 3.48 (in the interval $3.28 \leq x \leq 4$). According to students, the feasibility of the developed teaching materials was included in the "very good" category with a score of 3.54 (in the interval $3.28 \leq x \leq 4$). In general, the developed teaching materials are suitable for class 11 students of the Automotive Engineering Study Program at SMK.

3. Research by Salman M.Noer (2019)³⁰ The title Development of English Based on Contextual Instruments In Improving Student Competency Of Automotive School SMK Muhammadiyah Padang.

This research is in the background because the subjects of English in Automotive SMK majors is a very important subject, to facilitate students learning contextual based presentation material. Contextual learning strategy is a strategy that allows teachers to connect the subject matter that students are learning with the real world. Contextual based learning is a learning with

³⁰ Salman M Noer, 'Development of English English Based on Contextual Instruments in Improving Student Competency of Automotive School Smk Muhammadiyah Padang Pengembangan Bahan Ajar Bahasa Inggris Berbasis Kontekstual Dalam Meningkatkan Kompetensi Siswa Jurusan Otomotif Sm', *Jurnal Ilmiah Pendidikan Scholastic*, 3.1 (2019), pp. 1–9 <<http://e-journal.sastra-unes.com/index.php/JIPS>>.

student oriented approach. Students can link, apply, and experience the material they learn. This research has similarities with the researcher, namely is a development research (R&D) designed so that students are able to use English to communicate according to their work environment. In this development research, the product that will be produced is an English subject textbook for students of the Automotive Department of Muhammadiyah Vocational High School, class XI.

Table 1. 1 Relevant Previous Research

No	Researcher Name	Research Title	Similarities	Difference
1.	Haryudin et al, (2020)	is An Analysis of Developing English Teaching Materials at The Vocational High School in Cimahi	This research has similarities with the researcher's research, namely that it both analyzes the development of English language teaching materials in vocational schools, the availability and suitability of English language teaching materials according to students' needs, especially teaching materials/materials that students study according to the level of need in the world of work, especially for vocational school students	The difference is that the research method uses a qualitative descriptive method while the researcher uses the RND method.

2.	Lestari & Priyana (2020),	Developing English Reading and Writing Materials for Automotive Engineering Program in Vocational High School	This research has similarities with the researchers, namely that they both identified the needs of students in the Automotive Engineering Study Program class to develop English language that is appropriate for reading and writing learning materials and have the same development procedures as the researchers and both have needs analysis data which shows that, in reading learning, students want to learn simple instructions and vocabulary items relevant to the automotive field	This research is a development research using the Jolly and Bolitho model with several adaptations. The development procedures include needs analysis, syllabus design, learning material development, expert assessment, field testing, and material evaluation.
3.	Salman M.Noer (2019)	Development of English Based on Contextual Instruments In Improving Student Competency Of Automotive School SMK Muhammadiyah Padang.	This research has similarities with the researcher, namely is a development research (R&D) designed so that students are able to use English to communicate according to their work	This research did not use validation from material and curriculum experts. Only validation from language experts and design experts.

			environment.	
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B. Theoretical Review

1. Development Research

Sugiono said that *Research and Development* is a development method used to produce a particular product. In this opinion, development means having an orientation towards products whose effectiveness has been tested.³¹

Sukmadinata conveyed the same thing, that development is a process or steps to develop a new product or improve a previously existing product and can be accounted for. From Sukmadinata's opinion, development does not only include matters relating to the process, but rather is a process of perfecting a product that has previously existed and is in accordance with new discoveries or improvements that are part of the development process.³²

Borg and Gall explain that development is an industry-based development because when products or findings during development are used to design new products and procedures which are then systematically tested in the field, evaluated and refined until they reach the criteria of effectiveness and quality. or the same standard. From the opinion presented, development is development the aim is to design new products or procedures that are tested in the field and refined until they reach the expected quality and qualities.³³ As per the Law of the Republic of Indo-

³¹ Amalia Yunia Rahmawati, 'Metode Pengembangan', July, 2020, 1–23.

³² Amalia Yunia Rahmawati, 'Metode Pengembangan', July, 2020, 1–23.

³³Amalia Yunia Rahmawati, 'Metode Pengembangan'.

nesia Number 18 of 2002, development is defined as a science and technology endeavor that aims to leverage established scientific principles and theories to enhance the capabilities, advantages, and uses of existing science or to generate novel technologies.³⁴

Based on the opinions of several experts who have been presented, the developer defines research and development (R & D) as development that is based on the product development process or the process of improving a previously existing product. And the products that have been developed will be tested in the field to find out how good the product quality is. So that later products whose effectiveness and quality have been tested can enter the industrial world. So that it can improve the functions, benefits and applications of existing knowledge or produce new technology.

Product Development Model The development of a product requires stages to achieve the product as expected, so procedures are needed in product development. The procedures used in product development are called models. A real-world abstraction or representation of complex events or systems, in narrative, mathematical, graphic or other symbolic form. This statement was stated by Good and Travers. Many experts have expressed the definition of a development model, one of which is:

A design model in a learning system, according to Morrison, Ross, and

³⁴Indonesia Undang Undang Republik Indonesia Nomor 18 Tahun, 'Undang-Undang Nomor 18 Tahun 2002 Tentang Sistem Nasional Penelitian, Pengembangan, Dan Penerapan Ilmu Pengetahuan Dan Teknologi',

Kemp (2001), can assist designers of programs or learning activities in better comprehending the theoretical framework and using specific theories to produce more successful and efficient learning activities. Gustafson and Branch (2002) divided the learning system design development model into three categories, which include: *models that are focused on classrooms, products, and systems.*

- a. Classroom oriented learning system design (classrooms oriented model) A model whose orientation focuses on effective and efficient learning activities. In this model, classes must be based on an activity assumption that refers to strategy, delivery of material content and evaluation of learning.
- b. Learning design model that is focused on products (Product Oriented Model) product- focused design for educational software. when a product is created in the shape of educational media with the intention of helping pupils learn. Model Oriented on Systems.
- c. The development of a system-oriented learning system places more emphasis on the methods used in learning. Where is the Learning System Model This process requires a learning system design: input-process-output.

2. Vocabulary

The curriculum in Indonesia requires English to be one of the languages that must be learned because English is an international language. To master English, there are four skills that must be developed: listening, speaking, reading, and writing. Additionally, vocabulary is a crucial component in learning English. Mastery of vocabulary is essential for all these skills—listening, speaking, reading, and es-

pecially writing. According to Juhendi's research, vocabulary is a fundamental aspect of language, as it is integral to every language skill, including listening, speaking, reading, and writing.

Many people realize that their vocabulary is very limited, which makes it difficult for them to convey their ideas. To facilitate language learning for children, an understanding of vocabulary is needed, as it is a key part of the language learning process. Therefore, it is important for individuals to master and continuously improve their vocabulary to enhance their language skills. Mastery of vocabulary also supports students' ability to express opinions, intentions, and goals. Thus, vocabulary is a basic element that students must master before advancing in language learning. Without sufficient vocabulary knowledge, conveying ideas becomes challenging. Students must understand the meaning of vocabulary, be able to spell it correctly, use it appropriately in sentences, and pronounce it accurately.³⁵ As described in Qs. Al-Baqarah/2:31:³⁶

وَعَلَّمَ آدَمَ الْأَسْمَاءَ كُلَّهَا ثُمَّ عَرَضَهُمْ عَلَى الْمَلَائِكَةِ فَقَالَ أَنْبِئُونِي بِأَسْمَاءِ
هَؤُلَاءِ إِنْ كُنْتُمْ صَادِقِينَ ﴿31﴾

Translation:

“He taught Adam the names of all things, and then He showed them to the angels, saying, "Tell Me the names of these things if you are truthful.”

³⁵ Dwi Hartatiningsih, “Meningkatkan Penguasaan Vocabulary Bahasa Inggris dengan Menggunakan Media Wordwall Siswa Kelas VII MTs. Guppi Kresnomulyo”, *Action: Jurnal Inovasi Penelitian Tindakan Kelas dan Sekolah*, Vol. 2, No. 3, (Juli 2022), 303-312.

³⁶ Kementerian Agama RI, *Cordova Al-Qur'an Dan Terjemah*, ed. by Tim Syamil Quran, I (Bandung: Syamil Quran, 2012),hal. 6.

3. English Materials

- a. Brian Tomlinson defines English materials as teaching resources designed to support the English language learning process with the goal of improving students' language skills. According to him, teaching materials must be relevant to students' needs and include a variety of activities that can enhance language skills holistically. Tomlinson emphasizes the importance of adaptability and responsiveness in teaching materials to suit local contexts and students' specific needs.³⁷
- b. Garton and Richards describe English materials as resources created to address various needs within the context of English language teaching. They highlight that teaching materials should reflect both global and local requirements and be capable of supporting different learning approaches to achieve effective learning outcomes.³⁸
- c. Andrew Cunningsworth refers to English materials as tools designed to facilitate English language learning in a structured and planned manner. He stresses that these materials must be critically evaluated to ensure they meet high standards of quality and relevance, and that they are effective in motivating and engaging students throughout the learning process.³⁹

³⁷Tomlinson, B. (Ed.). (2011). *Materials development in language teaching*. Cambridge University Press

³⁸Garton, S., & Richards, J.C., (2019) *International Perspectives on English Language Teaching*.

³⁹Cunningsworth, A., & Tomlinson, B. (1984). Evaluating and selecting EFL teaching materials. (*No Title*).

4. Referring To Merdeka Learning Program

A clear curriculum is important as a reference that will create an affective learning process. The curriculum contains many constructive elements so that learning runs optimally. Good and bad education outcomes are determined by the curriculum, whether able to build critical awareness of students or not. The Merdeka curriculum is characterized by diverse intracurricular learning experiences, optimizing content delivery to provide students with ample time for exploring concepts and reinforcing competencies. This curriculum grants teachers a significant degree of flexibility, empowering them to select from a range of teaching tools. This adaptability ensures that the learning process can be tailored to meet the specific needs and interests of students, fostering a more personalized and effective educational experience.⁴⁰

Teaching is a profession conducted by using a combination of art, science, and skill. In the process of teaching English, educators should possess the ability to craft engaging and enjoyable classes through the development of effective lesson plans. This is crucial because students often become bored quickly, making it challenging for them to grasp the learning materials. To create successful lesson plans, teachers need to exhibit skills, creativity, and innovation. These attributes are essential for ensuring that students can easily comprehend the lessons, fostering a dynamic and stimulating learning environment.⁴¹

⁴⁰Marleni, Jaya, A., & Hidayad, F.. Integrated Curriculum Used in Learning English. *Es-teem: Journal of English Education Study Programme*, 2022, 5(2), 304-308.

⁴¹ Marleni, Jaya, A., & Hidayad, F.. Integrated Curriculum Used in Learning English. *Es-teem: Journal of English Education Study Programme*, 2022, 5(2), 304-308.

In accordance with Ministry of Education and Culture No. 22 of 2016 regarding lesson planning, the traditional lesson plan typically comprised thirteen components. However, in 2019, the current Minister of Education, Culture, Research, and Technology of the Republic of Indonesia, Nadiem Anwar Makarim, introduced the Merdeka learning program, which included a policy aimed at simplifying the lesson planning process. As outlined in Circular Letter No. 14 of 2019 from the Indonesia Ministry of Education and Culture, Merdeka learning has streamlined the lesson plan to incorporate only three essential components. These components are the learning objectives, the learning steps, and the assessment, marking a departure from the more intricate structure outlined in the previous educational guidelines. Teachers should craft a captivating and engaging syllabus and lesson plan to enhance the learning experience. The syllabus, designed in accordance with pertinent curriculum standards, carefully outlines the learning activities scheduled for an entire semester. A lesson plan, serving as the instructional roadmap for a single session, is a crucial component for teachers. It holds significance as it delineates the steps teachers need to follow during each class, aligning with the applicable curriculum. These well-structured plans contribute to effective teaching and ensure that the educational objectives are met consistently.

According to Nadiem, Merdeka learning Curriculum must be preceded by teachers before they teach it to students. In teacher competence at any level, without a process of translating the basic competencies and the existing curriculum, learning will never occur. The Minister of Education and Culture, Nadiem Makarim said that

Merdeka Learning is a concept of educational development in which all stakeholders are expected to become agents of change. These stakeholders include families, teachers, educational institutions, industry, and society. Advantages of Merdeka learning is the advantages of the Merdeka learning Curriculum are as follows. a) Simpler and more profound b) More independent c) More relevant and interactive Disadvantages of Merdeka learning, the disadvantages of the Merdeka learning Curriculum are as follows. a) Requires a lot of time and money with the free expression of students in learning, of course, it takes a lot of time and costs because in the process students have different understanding.⁴²

Students are given the freedom to choose and organize their learning according to their own interests, talents, and needs, while teachers find that this curriculum provides flexibility and supports the learning process. Evaluation of the curriculum through learning assessment meetings also demonstrates effective cooperation between the school, supervisors, and the education office, which is key to successfully implementing the curriculum.⁴³

5. Importance of Contextual Learning Materials

The development of specialized English language materials for vocational education is critical, as general language instruction often fails to address the spe-

⁴² Cahyani, U., Hidayad, F., & Rosmiyati, E. An Analysis Of English Teacher's Lesson Plan Referring To Merdeka Belajar Program At Smk Pgri 2 Of Palembang. *Esteem Journal of English Education Study Programme*, 2024, 7(1), 173-182.

⁴³ Yahya, N., Santaria, R., & Muhaemin, M.. Manajemen dan Evaluasi Penerapan Kurikulum Merdeka di SMK Pusat Keunggulan. *Jurnal Riset Dan Inovasi Pembelajaran*, 2024, 4(2), 1383-1393.

cific needs of students in technical fields. The alignment of English teaching materials with vocational content is essential for enhancing students' job readiness and language proficiency. Their study emphasizes that contextually relevant materials significantly improve comprehension and practical language use in professional settings to.⁴⁴

6. Procedure Text

Procedural texts are a very important type of text in everyday life. These texts provide clear and detailed guidance on how to do something, from simple tasks like making tea to more complex ones like conducting scientific experiments. The existence of procedural texts greatly helps us in completing tasks or achieving goals effectively and efficiently.

One of the advantages of procedural texts is their highly informative nature. These texts present information in a systematic and structured manner, making them easy for readers to understand.⁴⁵ Additionally, the use of imperative verbs and appropriate time adverbs makes procedural texts easier to follow.⁴⁶ Procedural texts can also help improve problem-solving skills, as readers are encouraged to think logically and follow the specified steps.

Procedural texts form the foundation of learning in automotive vocational high schools. Every step of a task, from vehicle inspection to engine repair and body painting, follows a standardized procedure. Automotive vocational students are required to master

⁴⁴ & Zhang. Zhang, 'Tailoring Language Learning Materials to Vocational Education Needs: An Empirical Study.', *Journal of Language Teaching and Research*, 12(1, 2021, pp. 45–58.

⁴⁵ Nuri Yanni Harahap, "(A Study at the Eleventh Grade Students of MAN Sipagimbar)," n.d.

⁴⁶ Aulan Nisa, "An Analysis of Nine Grade Students' Ability in Writing Procedure Text at Junior High School" 1, no. 1 (2022).

various types of procedural texts to work effectively and efficiently in the automotive industry. Through learning procedural texts, students not only understand the correct sequence of work but also the reasons behind each step, leading to a deeper conceptual understanding.

In the context of vocational education like automotive vocational high schools, procedural texts serve as a bridge between theory and practice. Students are encouraged to not only read and memorize theory but also apply it directly. For example, in a machine shop class, students will learn procedural texts for disassembling and assembling engines.⁴⁷ By following the listed steps, students can develop fine motor skills, problem-solving abilities, and a better understanding of engine components.

Additionally, procedural texts are an effective tool for instilling a safety culture in students. Every work procedure in an automotive workshop always includes safety steps that must be followed. By habitually following safety procedures, students can avoid accidents and create a safe and comfortable learning environment.

In the era of Industry 4.0, procedural texts are becoming increasingly relevant with the development of automotive technology. The emergence of electric vehicles, autonomous cars, and computer-based diagnostic systems requires continuously updated procedural texts. Automotive vocational students need to be equipped with the ability to read, understand, and even create procedural texts related to the latest technology. This will equip them with the skills needed to face the challenges of an increasingly complex workplace.

Overall, procedural texts play a very important role in automotive vocational high school education. Through learning procedural texts, students not only acquire technical skills but also develop professionalism, discipline, and the ability to adapt to technological

⁴⁷ Andrea De Giorgio et al., "Measuring the Effect of Automatically Authored Video Aid on Assembly Time for Procedural Knowledge Transfer among Operators in Adaptive Assembly Stations," *International Journal of Production Research* 61, no. 12 (June 18, 2023): 3910–25, <https://doi.org/10.1080/00207543.2021.1970850>.

advancements.

7. Relevance to Automotive Engineering

In the context of automotive engineering, highlight that tailored English materials can bridge the gap between general language skills and industry-specific communication needs. Their research indicates that industry-focused texts improve technical vocabulary acquisition and understanding of specialized procedures, which are crucial for effective performance in automotive roles.⁴⁸

8. Development Models and Their Effectiveness

The ADDIE model is widely recognized for its effectiveness in developing educational materials. Provide a comprehensive review of the ADDIE model's application in instructional design, noting that its systematic approach ensures the development of high-quality, relevant educational resources. Their analysis supports the use of ADDIE for creating customized learning materials that address specific educational needs, such as those in vocational training.⁴⁹

9. Motivation and Encouragement

The role of motivation in learning English for vocational purposes has been well-documented. Report that when students engage with materials that are directly applicable to their field of study, their motivation and enthusiasm for learning in-

⁴⁸ & Rogers. Smith, R., 'Developing Context-Specific English Materials for Technical Education: A Case Study in Automotive Engineering.', *International Journal of Technical Education*, 29(4), 2019, pp. 349–362.

⁴⁹ T. Brown, A., & Green, 'The Essentials of Instructional Design: Connecting Fundamental Principles with Process and Practice. Routledge.', 2020.

crease significantly. This finding aligns with the need to develop automotive-specific English textbooks that resonate with students' career aspirations.⁵⁰

10. Practical Application and Evaluation

Evaluating the effectiveness of newly developed teaching materials is crucial. Stress the importance of both formative and summative evaluation in assessing educational interventions. Their work underscores the necessity of iterative testing and feedback to refine materials and ensure they meet educational objectives and learner needs effectively.⁵¹

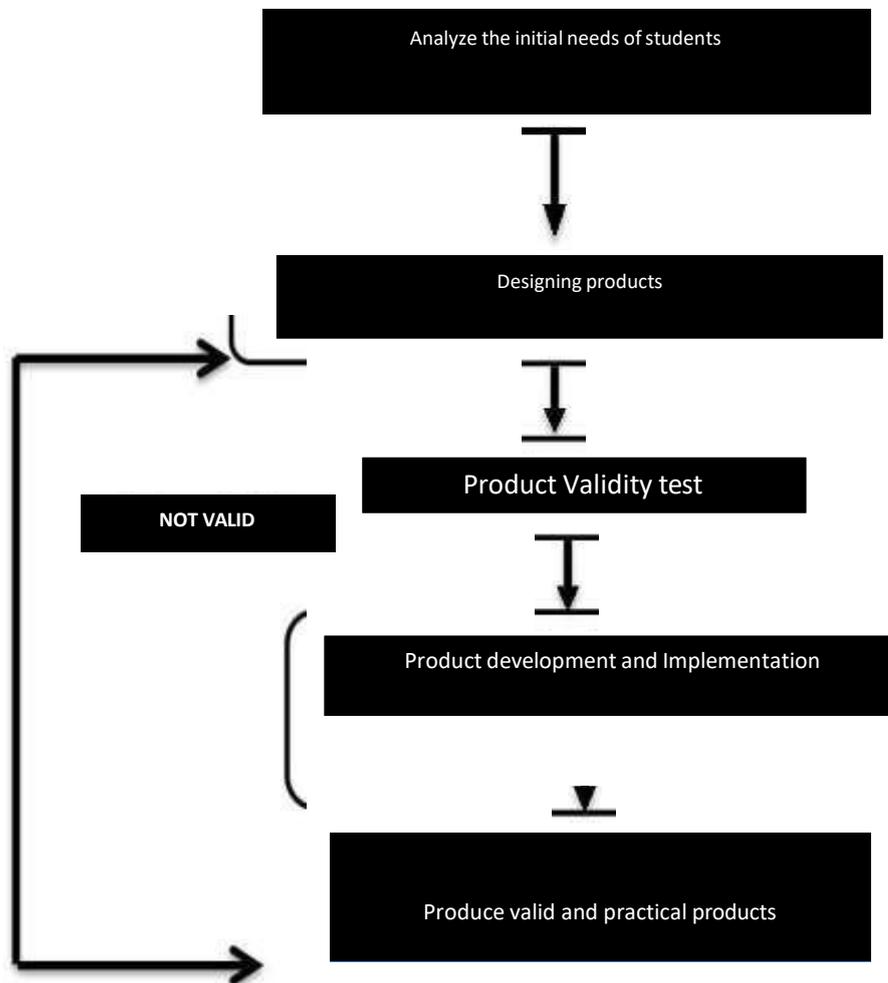
11. Global Context and Language Proficiency

The global need for English proficiency, especially in vocational contexts, is highlighted by a study outlines how English serves as a global lingua franca, making specialized English skills essential for international professional success. This global perspective reinforces the argument for developing English materials tailored to specific vocational fields.⁵²

⁵⁰ J. W. Lee, J. S., Lee, J. H., & Lee, 'Motivation in English Language Learning for Vocational Students: A Study on Specific Contexts.', *Journal of Vocational Education and Training*, 74(2), 2022, pp. 238–254.

⁵¹ T. Miller, L., & R, 'Evaluating Educational Interventions: A Practical Guide.', 2018.

⁵² A Jenkins, J., & Cogo, 'As a Lingua Franca: Theorizing and Teaching English.', 2021.

Table 1. 2 Conceptual Framework

CHAPTER III

RESEARCH METHODS

A. Type of Research

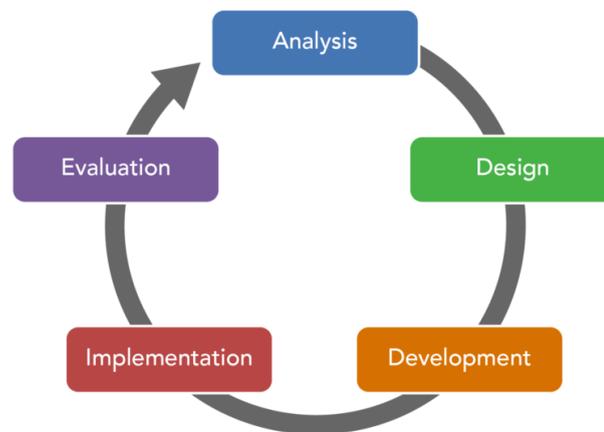
This research investigation is included in the research and development category. Research and development methods, or R&D in English, are scientific means for conducting studies, design, production and evaluating the efficacy of the products produced, according to Sugiyono. This knowledge allows reducing research and development efforts to the 4 Ps (Research, Design, Production and Testing).⁵³

Creating and evaluating educational goods is a process known as research and development (R&D). In a footnote on “products,” Borg and Gall (1979)⁵⁴ explain “Our Use of the Term,” “Products” include not only tangible goods such as textbooks, instructional films, and so on, but are also intended to refer to established procedures and processes, such as teaching methods or methods for structuring instruction. In other words, they claim that educational products developed through research and development are not only limited to learning books such as books, various types of educational films, etc., but can also take the form of procedures or processes such as instructional strategies or how to organize learning.⁵⁵

⁵³Sugianto, *Teknik Penelitian dan Pengembangan (Research and Development)* (Bandung: Alfabeta, 2017), h. 30

⁵⁴Borg and J. P. Gall. Galle, M. D., W. R., “Educational Research.” White Plains, NY: Longman’.

⁵⁵Wina Sanjaya, *Penelitian Pendidikan (Jenis, Metode, dan Prosedur)*, (Jakarta: Kencana, 2013), h. 129



Picture 1.1 The ADDIE Model

(Branch, R. M. "Instructional Design: The ADDIE approach." Springer. 2009)

This English teaching material was developed through four stages: first, analyzing what kind of assistance is needed by automotive engineering students. Next, designing To gather information about the potential for developing this English teaching material, we distributed an online needs analysis instrument to 25 students from the automotive engineering class. In the early stages of this English teaching material book, the design concept has a characteristic theme that is identical to automotive. The reading material contains descriptive text, procedure text and exercise. The trial stage of this book is designed to find out whether the information presented is in accordance with the needs of automotive engineering students. Can automotive engineering students more easily understand and use the presentation of vocabulary in the teaching material? The trial process consists of three steps, namely distributing online quizsioners and obtaining response information as material for designing teaching materials or development for the next stage. The results of data collection were analyzed qualitatively and quantitatively. After statistical analysis, the data was described. Comments and

suggestions for product improvement were collected as qualitative data, which were then examined and documented in qualitative descriptions to revise the items created. Statistical software for social sciences is used to analyze the frequency, average, and percentage of quantitative data that has been provided by the material assessment specialist. Qualitative and quantitative analysis is used to describe the results of data collection. Data is evaluated and described statistically. Qualitative data is provided in the form of comments and suggestions for improvement by product experts, analyzed and described using qualitative data obtained from expert reviews, entered into the computer, the average and percentage of frequency are analyzed statistically in the social science package.

At this needs analysis stage there are several stages, namely: Initial Analysis (Pre-Test), Design, Validation, Test/Implementation, Final Analysis (Practical and effectiveness test).

1. Initial Analysis

This initial analysis analyzes the basic problems faced by 25 students from the automotive engineering class to find out this problem, researchers used the Needs Analysis instrument.

2. Development Design

At this stage, the researcher created a product, namely an English teaching material book for automotive engineering class students which was created to make it easier for them to develop English vocabulary. There are several things that researchers need to prepare, namely: writing procedures, writing format, font size, and initial design, to the end. The product design for developing an English teaching

material book for automotive engineering class students consists of a cover or front and back covers, foreword, table of contents.

3. Development Validity

To determine the level of validity of the development of English language teaching materials for automotive engineering class students, the researcher developed and compiled it according to the needs of automotive engineering class students whose needs have been analyzed and to determine the results of the relative frequency obtained by the researcher. Furthermore, one of the main criteria for determining the validity or otherwise of the use of English language teaching materials for automotive engineering class students developed by the researcher is seen

4. Development Trials

The trial data analysis was obtained from the instrument needs analysis sheet distributed to 25 automotive engineering class students. The product assessment was based on the instrument needs analysis form that had been filled out by the respondents and then analyzed to determine the level of success of the developed product. There were item scores, percentage of product trial analysis, effectiveness test, implementation and final analysis of the instrument.

B. Location and Time of Research

This research was conducted for 3 months. The data collection and data collection process is carried out online via Google form using a needs analysis instrument. A research instrument is a tool used to obtain data and information from respondents. Arikunto (2014, p. 160) stated that a research instrument is a tool that researchers use to collect data so that their work is easier and the results are better,

in the sense of being more careful, more complete and systematic so that it is easier to process.⁵⁶

C. Research Objects and Subjects

The subjects of this study were 25 students of automotive engineering majors at SMKN 2 Luwu. The object of this study was the English language teaching material book for automotive classes.

D. Development Procedures

This development study uses a descriptive model, or procedural model, to describe the steps that must be taken to create a product. The final result of this study and development is English language teaching materials for automotive engineering classroom.

The ADDIE learning system is the learning methodology used (Analysis, Design, Development, Implementation, Evaluation). The methodical learning design approach is the ADDIE model. Reisser and Molenda created this concept. The decision to use this model was taken after considering the fact that this model was created methodically and was built on a theoretical framework for learning design. This model is set programmatically with an organized sequence of tasks in an effort to address problems with learning resources related to learning demands and features.

The five stages of the ADDIE learning system creation model are analysis,

⁵⁶ Andi Fitriani Djollong, 'Tehnik Pelaksanaan Penelitian Kuantitatif (Technique of Quantitative Research)', *Istiqra' : Jurnal Pendidikan Dan Pemikiran Islam*, 2.1 (2019), 86–100

<<https://jurnal.umpar.ac.id/index.php/istiqra/article/view/224>>.

design, development, implementation and evaluation.

1. Phase I Analysis

The analysis stage is the stage where researchers analyze the need for developing learning resources and analyze the feasibility and conditions for development. This stage is the process of defining what an automotive engineering classroom will learn. So, to find out or determine what students majoring in automotive engineering at vocational school must learn, researchers carry out a needs analysis, namely determining the abilities or competencies that students majoring in automotive engineering need to learn and carrying out material analysis in accordance with competency demands so that the development carried out can be in accordance with applicable competency guidelines.

2. Phase II Design

Product design focuses on three activities: selecting content that suits the characteristics and needs of automotive engineering students, implementing strategies and selecting formats and techniques for testing and evaluation.

3. Phase III Development

The third step consists of development activities, which is basically the process of providing design specifications for the physical form to create the development product. The development stage involves various tasks, such as finding and compiling all sources or references needed for creating material, creating supporting graphs and tables, creating drawings, typing, arranging layouts, creating evaluation tools, etc.

4. Phase IV Implementation

At this stage, after the product is declared valid, the teaching material book will be tested in the automotive department class that has been developed to conduct the trial.

5. Phase V Evaluation

The evaluation process involving the community and formative evaluation is the final step. Summative evaluation is carried out at the end of the program to assess the impact on product quality results. Formative evaluation is carried out at each stage to collect data used for improvement.⁵⁷

In summary, product development procedures can be carried out through several stages, including:

1. Pre-development stage by conducting needs analysis
2. Development stage by preparing the product
3. Product testing stage by validating content and validating design
4. The product revision stage is carried out by implementing the product that has been developed.⁵⁸

E. Data Collection Techniques

1. Needs Analysis Instrument (Pre-Test)

Providing a list of questions or written statements to respondents is a data

⁵⁷ I Made Tegeh, I Nyoman Jampel, I Ketut Pudjawan, *Model Penelitian Pengembangan*, (Yogyakarta: Graha Ilmu, 2014), h. 41-43

⁵⁸ Vera Kumala Sari, “*Pengembangan Bahan Ajar Berbasis Cerita Bergambar Untuk Meningkatkan Pemahaman Konsep pada Subtema 2 Lingkungan Sekitar Rumahku Kelas ISDN Gemukwatu IV Ngoro Jombang*”. Skripsi (Malang: Fakultas Tarbiyah, UIN Maulana Malik Ibrahim, 2015), h. 89

collection method commonly used in Needs Analysis Instrument (Pre-Test). Product evaluation data developed by researchers was collected using the Needs Analysis Instrument. Researchers can perfect the product they have created until it is considered valid or suitable for testing in the field by using this Needs Analysis Instrument as a reference base.

2. Assessment (Practical and effectiveness test)

After the product is used, the researcher distributes a quick tester (practical and effectiveness test) which is used to measure how good of the product is and how much Automotive students class understand the content of the product produced.⁵⁹

3. Validation Instrument

After designing "English material for automotive engineering classroom", the researcher validated the resulting product. There are three experts who will validate the product, they are language experts, curriculum experts, design experts and material experts.

F. Data analysis techniques

Two types of data analysis are used in research and product creation, namely qualitative data analysis and quantitative data analysis.

1. Qualitative Data Analysis

To determine a product development design that can be used to facilitate implementation and help automotive engineering classroom understanding, qualitative data analysis was carried out by analyzing information, criticism and suggestions from media experts and materials regarding the development of this English

⁵⁹I Made Tegeh, I Nyoman Jampel, I Ketut Pudjawan, *Model Penelitian Pengembangan...*82

material for automotive engineering classroom. The results of this qualitative data analysis can be applied for future product revisions. The analytical method used in this research for qualitative data was developed by Miles and Huberman. The steps are as follows:

a. Data Reduction

The amount of information collected outdoors requires careful and thorough documentation. To select relevant and meaningful data, concentrate on data that leads to problem solving, discovery, meaning, or resolution of research questions, data reduction is carried out after data collection. Then, filter and organize the information systematically while highlighting key results and their implications.

Each researcher will follow the goals they want to achieve as a guide when reducing data. Researchers will concentrate on findings from interviews with media experts and materials in the form of information, criticism and suggestions during data reduction.⁶⁰

b. Presentation Data

Data can be presented visually through text, images and tables. Bringing together information to describe the situation that occurred is the purpose of data presentation. In this situation, researchers must create narratives, matrices, or graphs to make it easier for them to understand the information or data, either in whole or in part, from the research results. Considering the results of the data reduction that has been carried out in this case, the researcher will show or present the

⁶⁰ Sugiyono, *Metode Penelitian Kuantitatif, Kualitatif, dan R & D* (Bandung: Alfabeta, 2015), h. 247

data findings.⁶¹

c. Conclusions Drawing

Interim conclusions are made during the research process once a sufficient amount of data has been collected, and final conclusions are made after all the data has been collected. Research findings in the form of descriptions or descriptions of objects that were previously unclear become clear upon closer inspection, becoming the conclusions.⁶²

2. Quantitative Data Analysis

Statistical approaches and analytical tools aid in the collection and analysis of data samples in order to uncover patterns and trends. These insights aid in developing forecasts that can be used to make decisions. Statistical analysis tools can also be used to analyze, describe, summarize, and compare data.

By reviewing the results of the Needs Analysis Instrument validation assessment of media and material validation, quantitative data analysis has been completed. The feasibility of the learning resources that researchers create is assessed using this analysis. Likert scales and categories are used when rating:

Table 3. 1. Assesment (Practical and effectiveness test)

SCORE	CRITERIA
1	Very Not Good
2	Not good
3	Enough

⁶¹ Sugiyono, *Metode Penelitian Kuantitatif, Kualitatif, dan R & D...*249

⁶² Sugiyono, *Metode Penelitian Kuantitatif, Kualitatif, dan R & D...*252

4	Good
5	Very Good

The results of the validation score calculation will be averaged and then converted from quantitative data to qualitative data according to the categories on the Likert scale.

CHAPTER IV

FINDINGS AND DISCUSSION

A. Findings

At this stage of needs analysis, there are several stages, namely: Initial Analysis, Design, Validation, Trial/Implementation, and Final Analysis.

1. Initial analysis

This preliminary analysis identifies the main problems faced by learners at vocational schools that require English language skills relevant to their chosen field. So, the researcher uses a needs analysis instrument. The results of the needs analysis instrument regarding the problems faced by vocational students are, 52% of vocational students do not know much about English material but 100% have a high curiosity in developing English material knowledge.

Table 4. 1: Need Analysis

NAMA	NEED ANALYSIS									
	Kelas	1. Apakah anda adalah peserta didik kelas otomotif yang ingin mengetahui bahasa inggris tentang otomotif?	2. Apakah anda adalah peserta didik kelas otomotif yang mengetahui banyak bahasa inggris tentang otomotif?	3. Menurut anda, apakah buku ajar materi bahasa inggris untuk kelas otomotif menarik?	4. Apakah anda belum pernah mendapatkan buku ajar materi bahasa inggris untuk kelas otomotif?	5. Menurut anda, jika buku ajar materi bahasa inggris untuk kelas otomotif dikembangkan, apakah bermanfaat?	6. Apakah anda sangat setuju jika buku ajar materi bahasa inggris untuk kelas otomotif ini menyajikan materi yang spesifik tentang otomotif?	7. Apakah anda sangat setuju jika buku ajar materi bahasa inggris untuk kelas otomotif ini menyajikan kosakata dalam kehidupan sehari-hari?	8. Apakah buku ajar materi bahasa inggris untuk kelas otomotif ini harus didesain bertemakan unsur otomotif?	9. Apakah anda setuju jika buku ajar materi bahasa inggris untuk kelas otomotif ini dapat dirilis dan dapat digunakan oleh peserta didik kejuruan khususnya kelas
Abdul Muthalib Wasman	X	Ya	Tidak	Ya	Ya	Ya	Ya	Ya	Ya	Ya
Agus Salim	X	Ya	Tidak	Ya	Ya	Ya	Ya	Ya	Ya	Ya
Alfiansyah	X	Ya	Ya	Ya	Ya	Ya	Ya	Tidak	Ya	Ya
Alfath Putra Jaya	X	Ya	Ya	Ya	Tidak	Ya	Ya	Tidak	Ya	Ya
ALIF	X	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya
Andi Ferdiansyah	X	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya
Alhief Maulana Risman	X	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya
Andika Ismail	X	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya

Anugrah	X	Ya	Tidak	Ya	Ya	Ya	Ya	Ya	Ya	Ya
Baso	X	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya
Ferdi Bumi	X	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya
Farel setiawan	X	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya
M.Wilan	X	Ya	Tidak	Ya	Tidak	Ya	Ya	Tidak	Ya	Ya
Guuntur Mustaming	X	Ya	Tidak	Ya	Ya	Ya	Ya	Ya	Ya	Ya
Muh. REYHAN R	X	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya
Muhammad Rizki	X	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya
Risal Umar	X	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya
Peri Mahmud	X	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya
Sabar Sanurki	X	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya
Saharuddin	X	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya
Saipul	X	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya
Rahim	X	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya
Alif Alfian Saputra	X	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya

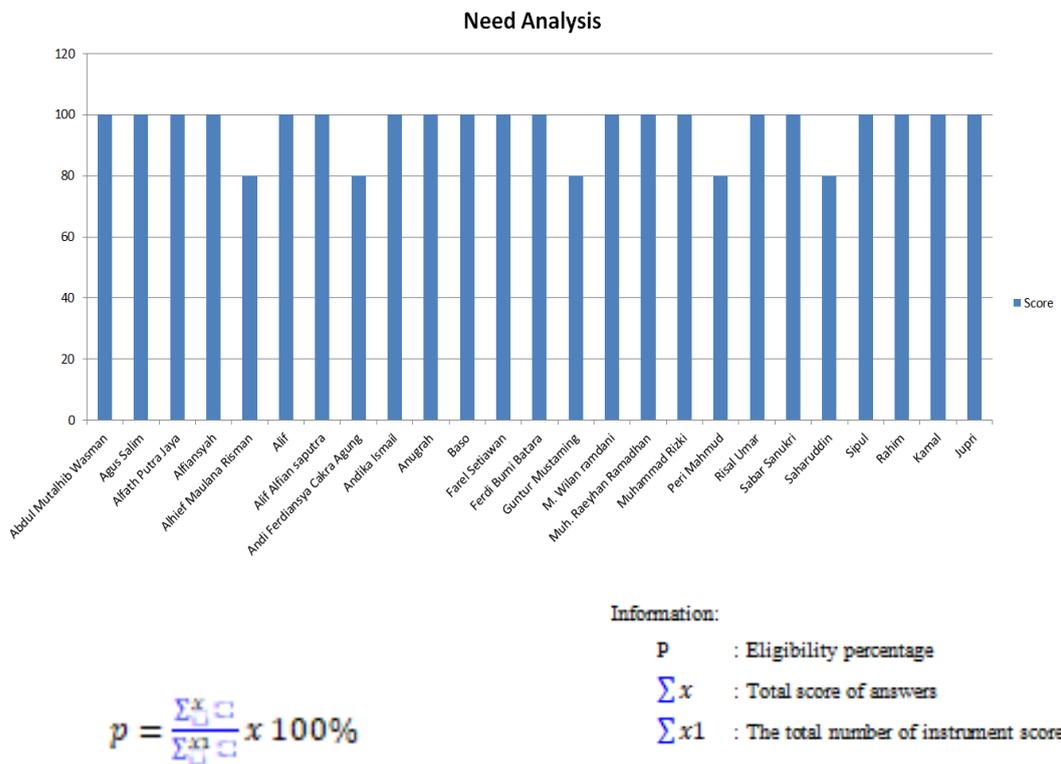
The data was obtained from the researcher's Needs Analysis instrument through the question: Do you have a special English material textbook for automotive engineering classes? Their answers are based on percentages, i.e. 100% have never received a similar product. According to them, if this product is developed, 92% will be very attractive because it offers an automotive concept.

Based on the results of the needs analysis instrument, the development of English material for automotive engineering classes through textbooks, if developed, will be very beneficial for vocational students for automotive engineering classes who will present materials used in daily life.

Data obtained from the needs analysis instrument shows that 96% of vocational students in automotive engineering classes think that they strongly agree if English materials are packaged in the form of textbooks designed specifically for automotive engineering classes. Therefore, the researcher will create a product in the form of an English material textbook for the automotive engineering class as

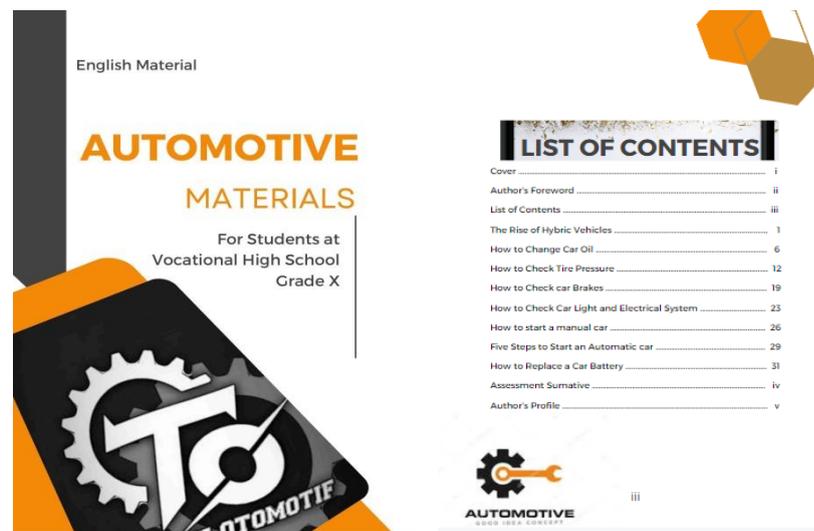
Desired by the students of the automotive engineering class.

Picture 4. 1: Result Initial Analysis Instrument / Pre-Test



2. Design of English material textbook development for automotive engineering class

At this stage, the researcher developed a product in the form of an English material textbook for automotive engineering classes. There are several things that need to be prepared by researchers, namely: typeface, writing format, font size, and initial design, to the end. Product design for the development of English material textbooks for automotive engineering classes consists of covers or front and back covers, prefaces, table of contents, automotive terms. It consists of 31 pages.



Picture 4. 2 front cover, list content, and back product

3. Validation of the development of English material textbooks for automotive engineering classes

To determine the level of validity of the development of English material textbooks for automotive engineering classes, researchers develop and compile them according to the needs of automotive engineering class students whose needs

have been analyzed and to find out the results of the relative frequencies obtained by researchers.

Furthermore, one of the main criteria to determine whether or not the use of English textbooks for automotive engineering classes developed by researchers is seen from the validation results of the validators.

a. Design validation results

Nurmiati, S.Pd (Majoring in automotive engineering education at UNM) as the head of the automotive engine department as an expert in the design of this product. The description of the results obtained after revising the product from 8 aspects, there are 6 aspects that have a valid value with a percentage of 100%, and there are 2 aspects that have a Quite Valid value of 75%. The total of all aspects that have a very valid value is 90.6%.

Table 4. 2: Design Validation Test Calculation Result

RATED ASPECT	INFORMATION	
1. The title includes the product name and organization.	P $= \frac{4}{4} \times 100\%$	Valid
2. Automotive vocabulary	P $= \frac{4}{4} \times 100\%$	Valid
3. Using appropriate letters	P $= \frac{4}{4} \times 100\%$	Valid
4. The material included is appropriate for its purpose	P $= \frac{4}{4} \times 100\%$	Valid
5. material according to basic	P $= \frac{3}{4} \times 100\%$	Quite Valid

competencies		
6. The designed product is able to measure development achievements	$P = \frac{3}{4} \times 100\%$	Quite Valid
7. use good and correct English-Indonesian	$P = \frac{3}{4} \times 100\%$	Quite Valid
8. The sentences used are simple and easy to understand	$P = \frac{4}{4} \times 100\%$	Valid
$P = \frac{29}{32} \times 100\% = 90,6\%$		Very Valid

b. Results of material and curriculum expert validation

Dr. Masruddin, M.Hum, as a material and curriculum expert. A description of the results obtained after making product revisions. After being revised, it is then validated to get validity. From the percentage results, it can be seen that out of 6 aspects, 4 have valid values and 2 have quite valid values, so that all aspects have very valid values with a percentage of 91.6%.

Table 4. 3: Material and curriculum Test Calculation Result

RATED ASPECT	INFORMATION	
1. suitability of material to basic competencies .	$P = \frac{4}{4} \times 100\%$	Valid
2. conformity of material to competency standards	$P = \frac{3}{4} \times 100\%$	Quite Valid
3. conformity of material to indicators	$P = \frac{4}{4} \times 100\%$	Valid
4. easy to understand material	$P = \frac{3}{4} \times 100\%$	Quite Valid
5. vocabulary suitability with automotive achievements	$P = \frac{4}{4} \times 100\%$	Valid
6. clarity of vocabulary description	$P = \frac{4}{4} \times 100\%$	Valid
$P = \frac{22}{24} \times 100\% = 91,6\%$		Very Valid

c. Linguist validation results

Mrs. Dewi Furwana, S.Pd.I, M.Pd, as a linguist. Description of the results obtained after revising the product from 7 aspects, there are 5 that have a very valid value with a percentage of 100%, there are 2 that have a valid value of 75%. The total value of all valid aspects is 92.85%

Table 4. 4: Linguist validation Test Calculation Result

RATED ASPECT	INFORMATION	
1. Clear numbering	P $= \frac{4}{4} \times 100\%$	Valid
2. Easy to understand material	P $= \frac{4}{4} \times 100\%$	Valid
3. Using communicative language and simple sentence structures	P $= \frac{3}{4} \times 100\%$	Quite Valid
4. Use good and correct language	P $= \frac{4}{4} \times 100\%$	Valid

5. Use correct writing, spelling and punctuation	$P = \frac{3}{4} \times 100\%$	Quite Valid
6. Use the correct terms so that it is easy to understand	$P = \frac{4}{4} \times 100\%$	Valid
directions and instructions to avoid multiple interpretations.	$P = \frac{4}{4} \times 100\%$	Valid
$P = \frac{26}{28} \times 100\% = 92,85\%$		Very Valid

4. Trial development of English material textbooks for automotive engineering classes

Based on the results of the trial of the English material textbook for automotive engineering classes for vocational students of this automotive engineering class, it was carried out by distributing test instruments to find out the response of students who had previously been sampled for their initial needs. The data of the test results is in the interval of 81% - 100% with a score of 81% with the category

"Very Practical". This means that the English material textbook for automotive engineering classes is easy to use. Based on this data, we get an idea that the product developed is very practical.

The product assessment is based on the needs analysis form instrument that has been filled out by the respondent and then analyzed to determine the success rate of the product developed. The assessment technique used uses the Likert scale with the following analysis steps:

Question item score

The Likert Scale is used to score the form provided, which is as follows:

Table 4. 5: The Likert Scale

Score	Criteria
4	Strongly Agree
3	Agree
2	No Agree
1	Strongly Disagree

Based on this scale reference, the total scores of all indicators in the requirements analysis instrument items are then summed.

Product trial analysis percentage

The analysis used the following percentage values:

$$\text{Score} = \frac{\text{Total score obtained}}{\text{maximum score}} \times 100\%$$

After obtaining the percentage value, then grouping is carried out according to the criteria by referring to the following table:

Table 4. 6 :Presentage and Criteria Practical

Percentage (%)	Criteria
0-20	Not practical
21-40	Not practical
41-60	Quite practical
61-80	practical
81-100	Very practical

a. Effectiveness test

In the effectiveness test, the score value of the needs analysis instrument distributed to the respondents was seen, then analyzed by calculating the percentage of item scores for each answer from each question in the form. To determine the percentage, you can use the following formula. (Sugiyono, 2010)

$$p = \frac{\sum x}{\sum x_1} \times 100\%$$

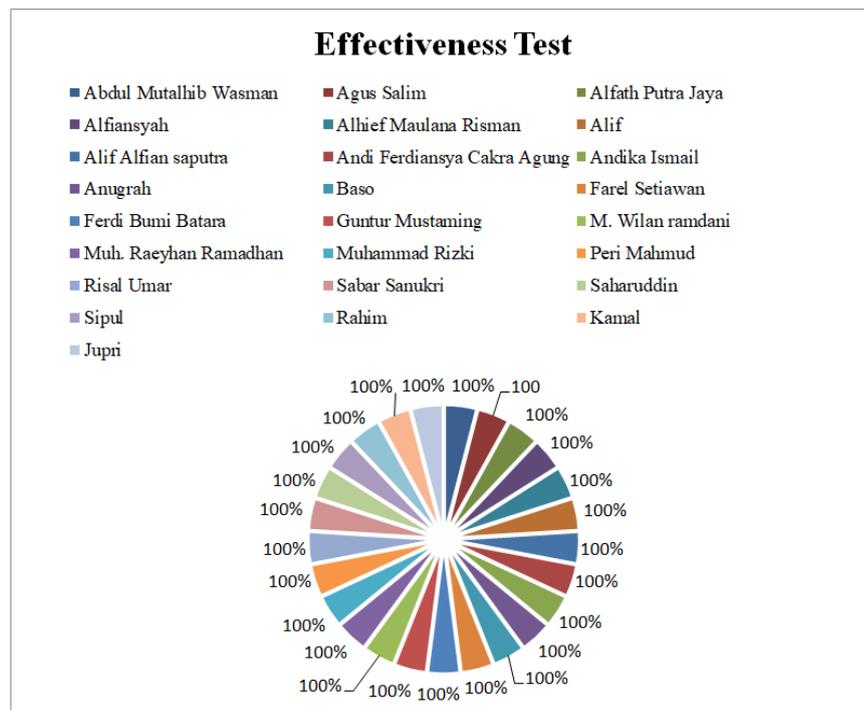
Information:

P : Eligibility percentage

$\sum x$: Total score of answers

$\sum x_1$: The total number of instrument scores

From the results of the effectiveness test instrument filled by students of the automotive engineering class, the following percentages were obtained:



Picture 4. 3 : Effectiveness Test

Of the respondents, each had a score in the 100% category. Based on this, it can be concluded that the instructional design products developed are "effective".

5. Implementation

After all the training procedures were completed, the researcher consulted with the head of the department at the Vocational High School to get a response from her regarding the products that the researcher had developed. The researcher got a positive response about this product from Mrs. Nurmiati, S.pd. Many English materials that are already relevant to automotive, Mrs. Nurmiati, S.Pd reinforces

this:

"The English material textbook for automotive engineering classes written by St. Rismawati, is a written work that really needs to be developed. This textbook is very interesting to be used as material for students to gain insight into English, especially for automotive engineering classes, and of course it will be useful for students in the future when they have pursued a career in accordance with the profession or skill chosen when they were in vocational school. This textbook is very relevant, many automotive terms are included. It makes it easier for students to learn English."

6. Final analysis

After the product was used, the researcher shared a practical and effectiveness test that was used to measure how good the quality of the product was and how well vocational students in the automotive engineering class understood the content of the product produced.

B. Discussion

Stated that the development of learning media greatly influences the achievement of competency standards for vocational high school students that have been set in English subjects.⁶³ This underlines the importance of developing books or learning media in order to increase students' enthusiasm and attraction when given English language material, especially for vocational students, as well as, in

⁶³ Rifa Usaifa, Mochammad Sukardjo, and Murni Winarsih, 'Pengembangan Media CAI (Computer Assisted Instruction) Pada Mata Pelajaran Bahasa Inggris Untuk Kelas X Di Sekolah Menengah Kejuruan', *PERPEKTIF Ilmu Pendidikan*, 34.2 (2020), pp. 137–46.

order to achieve the competency standards that have been set.

Developed English material textbooks for automotive classes based on student needs, which are considered effective and valuable for Vocational High School students, because the textbooks are in accordance with indicators and relevant to students' specific needs and goals in their academic and vocational activities.⁶⁴ This underlines the importance of creating English textbooks that suit the needs and goals of vocational education, which can ultimately improve the quality of English language teaching.

Impressively,⁶⁵ report their research findings with several key points: 1) Students in the vocational high school displayed a high level of motivation to learn English. However, they faced certain obstacles in their learning journey. 2) The teaching materials being used in the school did not fully align with the specific needs and expectations of the students in preparing for their future careers. 3) There was a gap between the content provided and the practical requirements of the job market. 4) Authentic and industry-specific materials were lacking, which hindered the ability of students to gain practical, job-related language skills. 4) The development of teaching materials at the school has not seen substantial innovation or improvement. The materials remain predominantly textual and traditional. 5) Teachers encountered challenges in developing teaching materials. These challenges included a lack of knowledge, limited access to experts in material development, and

⁶⁴ Arin Arianti, Nurnaningsih, and Veronika Unun Pratiwi, *Developing English Textbook Based on Students' Needs for Vocational High School* (ISETH: International Summit on Science Technology and Humanity, 2018).

⁶⁵ Haryudin, Yana, and Efransyah.

insufficient training and resources for creating effective teaching materials.⁶⁶ Emphasized the crucial need for relevant teaching materials in the automotive field, such as automotive-based readings and vocabulary. This need arises from the strong demand within the automotive industry for vocational graduates who possess competence in this specialized area.⁶⁷ Also stated that contextual learning materials can support students' language learning achievements, which also supports their future careers. Overall, the studies mentioned above strongly indicate that learning materials in vocational schools must be designed carefully to include any material related to automotive issues. Several studies emphasize the need to create English language teaching materials that are tailored to the majors and needs of students in the automotive field.

Efforts that must be made so that a person can master English material for communication purposes include: realizing the importance of mastering English, focusing on learning English in depth, cooperating with others in learning English, being patient in learning, participating in special English education or training, installing an English dictionary application on a smartphone, watching and listening to songs or videos in English. The purpose of this teaching material is as a medium to facilitate and provide facilities for students in learning English, especially for automotive engineering classes because the material presented includes any material related to automotive, specifically the English material textbook for automotive

⁶⁶ Lestari and Priyana.

⁶⁷ Farida Indri Wijayanti and Arif Nugroho, 'English Material Needs of Automotive Technology Students: An Esp Approach', *ETERNAL: English, Teaching, Learning, and Research Jurnal*, 7.1 (2021), pp. 152–67.

engineering classes is designed so that students of automotive engineering classes have relevant references related to the profession they choose.

The results of the analysis obtained by the researcher, in the initial condition of the analysis, the researcher obtained information that the English material textbook for the automotive engineering class must be developed so that the students of this automotive engineering class have a source of information whose content is in accordance with the needs of the automotive engineering class. The impact of the lack of insight into English that is relevant to their chosen field will make it difficult for students when they have entered the world of work that is in accordance with their chosen profession, especially in the automotive field.

The data that has been obtained from the responses of vocational students in automotive engineering classes proves that vocational students, especially automotive engineering classes, are very fond of the application of products developed by researchers. This product provides an understanding to vocational students of automotive engineering classes about automotive terms in English.

Based on this description, the English material textbook for automotive engineering classes is one of the useful learning resources for vocational students of automotive engineering classes to develop their knowledge about automotive and become their provision when pursuing their chosen profession in the future, as well as a trigger to increase the learning enthusiasm of vocational students, especially automotive engineering classes. Therefore, researchers need to develop this product.

CHAPTER V

CONCLUSION AND SUGGESTION

A. Conclusion

1. Based on the results of the needs analysis, it was found that 100% of the "English textbook for automotive engine classes", if developed, will be very beneficial for students in vocational schools, because it is designed according to the needs and discussions that are more contextual with the profession or major chosen by the student.
2. The stage of developing an English textbook for automotive engineering classes needs to be prepared, including: typeface, writing format, font size, initial design, to the end. And it consists of a cover (front and back) preface, table of contents, automotive terms. And it contains 31 pages.
3. Validity tests were obtained: design validation 90.6% of the category was valid, validation of material and curriculum experts was 91.6% of the category was very valid, and validation of linguists was 92.85% of the category was very valid. So it is known that the product developed is valid for testing.
4. The trial of this product was carried out by distributing a needs analysis instrument to find out the responses of 25 students who had previously been sampled for their initial needs. The test result data is in the interval of 81% - 100% with a score of 100% in the "Very Practical" category. This means that these 25 students stated that the English material textbook for automotive engineering classes is easy to use. Based on this data, we get an idea that the

Product developed is very practical.

5. From the results of the effectiveness test form filled out by 25 students and obtained the percentage of 25 respondents each had a score in the 100% category. Based on this, it can be concluded that the instructional design products developed are "effective".

B. Suggestion

Based on the results of the study, analysis of the discussion and conclusions several suggestions can be submitted as follows:

1. This teaching material can be developed by researchers continuously with various variations.
2. The language used in this product must use language that is easy to understand so that readers can better understand the content of the teaching material.
3. This teaching material book must be easily accessible to all automotive engineering class students both online and printed so that students can use it from various choices.

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BIOGRAPHY



ST. RISMAWATI NASIR, Born on August 7, 1982, in Palopo, She is the third of seven children of Drs. Muhammad Nasir and Mahlamang. She lives in Belopa District, Luwu Regency, South Sulawesi, Indonesia. She began elementary school at SD Negeri 22 Belopa in 1989 and graduated in 1995. She continued her studies at SMP Negeri 1 Belopa, graduating in 1998, and then attended SMU Negeri 1 Belopa, graduating in 2001. In 2001, she enrolled at STKIP Cokroaminoto Palopo in the Faculty of Teacher Training and Education, majoring in English. In the fifth semester, she transferred to Muhammadiyah University of Makassar within the same faculty and graduated in 2006. In 2007, she started teaching at SMKN 1 Belopa as honorary staff. By 2009, she was appointed as a civil servant at the school, which was renamed SMKN 2 Luwu. That same year, she registered as a postgraduate student at Makassar State University majoring in English language education, but she did not complete her thesis. In 2009, she married Yakub, S.Pd., and they have two children. In 2019, she participated in professional teacher education at Muhammadiyah University of Pare-Pare and earned the title of English teacher (GR). In 2020, she became the treasurer of the Luwu branch of the Scout Quarter, a position she still holds. From 2021 to 2022, she served as the treasurer of the BOS at SMKN 2 Luwu. In 2022, she re-enrolled as a postgraduate student at IAIN Palopo, majoring in English education, and continues in this program. Since 2024, she has been the head of the library at SMKN 2 Luwu.

APPENDICES

DOCUMENTATION





PEMERINTAH PROVINSI SULAWESI SELATAN

DINAS PENDIDIKAN

UPT SMK NEGERI 2 LUWU

Alamat : Jl. Pahlawan Kel. Tampumia Radda Kec. Belopa Kab. Luwu 91994

Email: smkn2luwu@gmail.com



Nomor : 420/073.a-UPT SMKN.2 /LUWU/DISDIK
Lampiran : -
Perihal : **Persetujuan Izin Penelitian**

Kepada
Yth. Direktur Pascasarjana
Institut Agama Islam Negeri Palopo
Di
Tempat

Yang bertanda tangan di bawah ini Kepala UPT SMK Negeri 2 Luwu menerangkan bahwa :

Nama : **ST. RISMAWATI NASIR, S.Pd**
NIM : 2205040007
Tempat Tanggal Lahir : Palopo, 7 Agustus 1982
Jenis Kelamin : Perempuan
Program Studi : Pascasarjana (S2) Tadris Bahasa Inggris

Telah disetujui untuk mengadakan Penelitian di UPT SMK Negeri 2 Luwu tanggal 01 April s/d 21 Juni 2024 dengan judul "**DEVELOPING ENGLISH MATERIALS FOR AUTOMOTIVE CLASSROOM**".

Demikian surat ini kami berikan untuk dipergunakan sebagaimana mestinya

Luwu, 19 Maret 2024

Kepala UPT SMK Negeri 2 Luwu



NUR INSANI, S.Pd., M.Pd

Pangkat : Pembina Tk..I

NIP. 197802282005022008



#BerAKHLAK
#SIPAKATAU

#CERDASKI'

• Cakutari • Cipta • Cermat • Cerdas • Cakutari • Cipta • Cermat • Cerdas

SETULUS HATI, SEPENUH NIWA, SEHATY BAGA
MENCERDASKAN SULAWESI SELATAN



SURAT KETERANGAN

Nomor : 420 / 183.a - UPT SMKN.2/LUWU/DISDIK

Yang bertanda tangan dibawah ini :

Nama : **NUR INSANI, S.Pd., M.Pd.**
Jabatan : Kepala UPT SMKN 2 Luwu

Dengan ini menerangkan bahwa :

Nama : **ST. RISMAWATI NASIR, S.Pd**
Tempat, Tgl Lahir : Palopo, 7 Agustus 1982
NIM : 2205040007
Perguruan Tinggi : IAIN Palopo
Program Studi : Pascasarjana (S2) Tadris Bahasa Inggris

Telah Melakukan Penelitian terhadap siswa Jurusan Otomotif di UPT SMKN 2 Luwu di Belopa pada bulan April sampai Juni 2024 dengan Judul Penelitian **“DEVELOPING ENGLISH MATERIALS FOR AUTOMOTIF ENGINEERING CLASSROOM”**.

Demikian surat keterangan ini dibuat untuk dipergunakan sebagaimana mestinya.

Belopa, 24 Juni 2024
Kepala UPT SMK Negeri 2 Luwu



NUR INSANI, S.Pd., M.Pd
Pembina TK.I / IVb
NIP. 197802282005022008

Tembusan Yth :

1. Cabang Dinas Wilayah XI
2. Rektor IAIN Palopo di Palopo
3. Arsip



#BerAKHLAK
#SIPAKATAU

#CERDASKI

BETULU HATI, BERSALU JIWA, SEGAL RASA
BERKESERUAN SULAWESI SELATAN

LEMBAR VALIDASI PRODUK PENGEMBANGAN
Developing English Materials for Automotive Engineering Classroom

Nama validator : Dewi Furwana, S.Pd., M.Pd.
Jabatan : Dosen/Sekretaris Prodi Tadris Bahasa Inggris Pascasarjana
Alamat : Palopo
No. Hp : 081242707997

I. Tujuan

Dalam rangka menyusun artikel dengan judul "Developing English Materials for Automotive Engineering Classroom". Oleh St. Rismawati: 2205040007, Program studi Tadris Bahasa Inggris Pascasarjana IAIN Palopo. Untuk itu, peneliti meminta Bapak/Ibu memberikan penilain terhadap Produk yang dikembangkan tersebut. Tujuan penggunaan produk ini untk mengukur kevalidan oleh para validator.

II. Petunjuk

- a. Penilaian dilakukan dengan memberikan tanda centang (✓) pada kolom untuk masing-masing aspek.
- b. Penilaian sealnjutnya menggunakan penilaian sebagai berikut:
 - Skor 1 : Tidak Valid (terlarang digunakan)
 - Skor 2 : Kurang Valid (tidak dapat digunakan)
 - Skor 3 : Cukup Valid (dapat digunakan dengan revisi kecil)
 - Skor 4 : Valid (dapat digunakan tanpa revisi)
- c. Selain memberikan penilaian, Bapak/Ibu dapat memberikan komentar/koreksi pada lembar instrument.

LEMBAR VALIDASI PRODUK PENGEMBANGAN
Developing English Materials for Automotive Engineering Classroom

III. Penilaian kelayakan

Kriteria Penilaian		Skor penilaian			
		1	2	3	4
Kevalidan Bahasa	Penomoran jelas				✓
	Materi mudah dipahami				✓
	Menggunakan bahasa yang komunikatif dan struktur kalimat yang sederhana			✓	
	Gunakan bahasa yang baik dan benar.				✓
	Gunakan tulisan, ejaan, dan tanda baca yang tepat			✓	
	Gunakan istilah yang benar sehingga mudah dimengerti				✓
	Gunakan petunjuk dan instruksi yang jelas agar tidak menimbulkan multitafsir				✓

IV. Komentar dan Saran

Komentar dan Saran
Uraian krtar disetujui.

V. Penilaian umum:

Instrument ini:

- Dapat digunakan dengan tanpa revisi
- Dapat digunakan dengan revisi kecil
- Dapat digunakan dengan revisi besar
- Belum dapat digunakan dan memerlukan konsultasi

Nama Validator,



Dewi Furwana, S.Pd., M.Pd

LEMBAR VALIDASI PRODUK PENGEMBANGAN

Developing English Materials for Automotive Engineering Classroom

Nama validator : Dr. Masruddin, M.Hum
Jabatan : Dosen TBI Pascasarjana/Wakil Rektor II IAIN Palopo
Alamat : Jl. K.H.M. Razak (Perum. Pesona Tanah Luwu)
No. Hp : 085255826060

I. Tujuan

Dalam rangka menyusun artikel dengan judul "Developing English Materials for Automotive Engineering Classroom". Oleh St. Rismawati: 2205040007, Program studi Tadris Bahasa Inggris Pascasarjana IAIN Palopo. Untuk itu, peneliti meminta Bapak/Ibu memberikan penilaian terhadap Produk yang dikembangkan tersebut. Tujuan penggunaan produk ini untuk mengukur kevalidan oleh para validator.

II. Petunjuk

- a. Penilaian dilakukan dengan memberikan tanda centang (✓) pada kolom untuk masing-masing aspek.
- b. Penilaian selanjutnya menggunakan penilaian sebagai berikut:
 - Skor 1 : Tidak Valid (terlarang digunakan)
 - Skor 2 : Kurang Valid (tidak dapat digunakan)
 - Skor 3 : Cukup Valid (dapat digunakan dengan revisi kecil)
 - Skor 4 : Valid (dapat digunakan tanpa revisi)
- c. Selain memberikan penilaian, Bapak/Ibu dapat memberikan komentar/koreksi pada lembar instrument.

LEMBAR VALIDASI PRODUK PENGEMBANGAN
Developing English Materials for Automotive Engineering Classroom

III. Penilaian kelayakan

Kriteria Penilaian		Skor penilaian			
		1	2	3	4
Kevalidan Materi dan kurikulum	Kesesuaian materi dengan kompetensi dasar,				✓
	Kesesuaian materi dengan standar kompetensi			✓	
	Kesesuaian materi dengan indikator				✓
	Materi mudah dipahami			✓	
	Kesesuaian kosakata tentang otomotif				✓
	Kejelasan keterangan kosakata				✓

I. Komentar dan Saran

Komentar dan Saran
<i>Dikembangkan dan di aplikasikan.</i>

II. Penilaian umum:

Instrument ini:

- a. Dapat digunakan dengan tanpa revisi
- b. Dapat digunakan dengan revisi kecil
- c. Dapat digunakan dengan revisi besar
- d. Belum dapat digunakan dan memerlukan konsultasi

Nama Validator,



Dr. Masruddin, M.Hum

LEMBAR VALIDASI PRODUK PENGEMBANGAN

Developing English Materials for Automotive Engineering Classroom

Nama validator : Nurmianti, S.Pd.
Jabatan : Ketua jurusan Teknik Otomotif SMKN 2 Luwu
Alamat : Belopa
No. Hp : 082393177485

I. Tujuan

Dalam rangka menyusun artikel dengan judul "Developing English Materials for Automotive Engineering Classroom". Oleh St. Rismawati: 2205040007, Program studi Tadris Bahasa Inggris Pascasarjana IAIN Palopo. Untuk itu, peneliti meminta Bapak/Ibu memberikan penilaian terhadap Produk yang dikembangkan tersebut. Tujuan penggunaan produk ini untk mengukur kevalidan oleh para validator.

II. Petunjuk

- a. Penilaian dilakukan dengan memberikan tanda centang (✓) pada kolom untuk masing-masing aspek.
- b. Penilaian sealnjutnya menggunakan penilaian sebagai berikut:
 - Skor 1 : Tidak Valid (terlarang digunakan)
 - Skor 2 : Kurang Valid (tidak dapat digunakan)
 - Skor 3 : Cukup Valid (dapat digunakan dengan revisi kecil)
 - Skor 4 : Valid (dapat digunakan tanpa revisi)
- c. Selain memberikan penilaian, Bapak/Ibu dapat memberikan komentar/koreksi pada lembar instrument.

LEMBAR VALIDASI PRODUK PENGEMBANGAN
Developing English Materials for Automotive Engineering Classroom

III. Penilaian kelayakan

Kriteria Penilaian		Skala penilaian			
		1	2	3	4
Kevalidan Desain	Judul mencakup Nama Produk dan Organisasi				✓
	Kosakata otomotif (Untuk digunakan oleh siswa kelas otomotif sesuai dengan tujuannya)				✓
	Menggunakan huruf yang sesuai				✓
	Materi yang disertakan sesuai dengan tujuannya				✓
	Materi sesuai dengan kompetensi dasar			✓	
	Produk yang dirancang mampu mengukur pencapaian pengembangan			✓	
	Menggunakan bahasa Inggris-Indonesia yang baik dan benar			✓	
	Kalimat yang digunakan sederhana dan mudah dipahami				✓

IV. Komentar dan Saran

Komentar dan Saran
<i>Selalu gunakan Bahasa Ind.-Inggris yg baik dan benar</i>

V. Penilaian umum:

Instrument ini:

- Dapat digunakan dengan tanpa revisi
- Dapat digunakan dengan revisi kecil
- Dapat digunakan dengan revisi besar
- Belum dapat digunakan dan memerlukan konsultasi

Nama Validator,



Nurmiati, S.Pd.



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Jalan Agatis, Kelurahan Balandai, Kecamatan Bara, Kota Palopo Sulawesi Selatan Kode Pos: 91914

SURAT KETERANGAN

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Judul : "Developing English Materials For Automotive Engineering Classroom"

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NO.138/Y.NECO-LKP/CERT/07/2024



YAYASAN NECO
NUSANTARA ENGLISH COURSE

Certificate of Achievement For the PBT TOEFL TEST

This is Presented to:

ST. RISMAWATI NASIR

Place Date of Birth : Palopo, August 07th 1982

Has Taken a TOEFL Prediction in Nusantara English Course (NECO) for the Test that
Conducted by Yayasan Neco Center Palopo and has Attained the

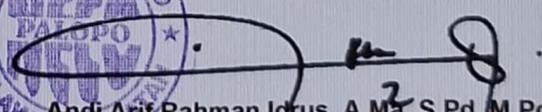
Following Competency :

Listening Comprehension	: 52
Structure & Written Expression	: 56
Reading Comprehension	: 55
Total Score	: 543

We hope this Letter of Explanation will be found useful by where necessary.

Palopo, 27th of Juli 2024,




Andi Arif Rahman Idrus, A.Ma., S.Pd. M.Pd
Director of Yayasan Neco

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LETTER OF ACCEPTANCE

No. 113.0209/In.19/IDEAS/IX/2024

Kepada Yth.

St. Rismawati Nasir, Rustan Santaria, Sukirman, Yulia Savhika S.

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ENGLISH LANGUAGE EDUCATION, STATE ISLAMIC INSTITUTE OF PALOPO,
PALOPO, INDONESIA

Assalamu'alaikum Warahmatullaahi Wabarakaatuh

Dengan hormat kami sampaikan bahwa tim redaktur telah menerima artikel **ID 5550** yang berjudul "**AUTOMOTIVE NUANCE TEXTBOOK; ENGLISH LEARNING MATERIALS FOR AUTOMOTIVE ENGINEERING VOCATIONAL STUDENTS**" dan dinyatakan layak diterbitkan pada Jurnal Ideas Bulan **December 2024, Volume 12 Nomor 2**.

Demikian penyampaian ini, atas perhatiannya kami ucapkan terima kasih.

Wassalamu'alaikum Warahmatullaahi Wabarakaatuh



Cek Status Naskah

Palopo, 2 September 2024
Tim Redaksi

A handwritten signature in black ink, appearing to read 'Masruddin', written over the 'ideas' logo.

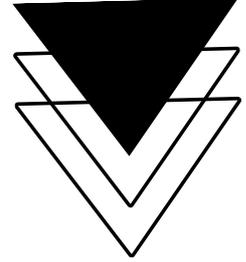
Dr. Masruddin., SS., M.Hum.
NIP. 19800613 200501 1 005

English Material

AUTOMOTIVE MATERIALS

For Students at
Vocational High School
Grade X





Author's Foreword

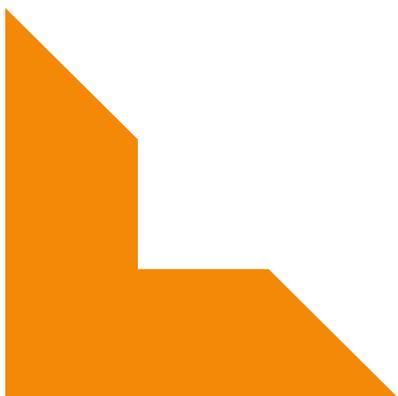
Praise and thanks be to the Almighty God for His blessings and grace, enabling the author to complete this material on time.

This material is not a perfect model, so the author welcomes criticisms and suggestions to make it better.

Hopefully, this material can be used as a reference for automotive materials for class X.

Luwu, July 2024

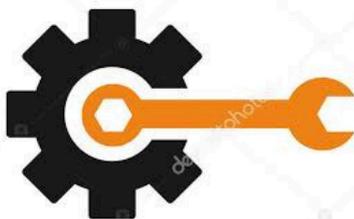
Author





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Words in Basic Automotive

Here are some basic automotive-related vocabulary words in English along with their meanings:

1. **Engine** - Mesin
2. **Transmission** - Transmisi
3. **Brake** - Rem
4. **Tire** - Ban
5. **Battery** - Aki / Baterai
6. **Spark Plug** - Busi
7. **Radiator** - Radiator
8. **Alternator** - Alternator
9. **Fuel Tank** - Tangki Bahan Bakar
10. **Gearbox** - Kotak Persneling
11. **Exhaust** - Knalpot
12. **Dashboard** - Dasbor
13. **Headlight** - Lampu Depan
14. **Taillight** - Lampu Belakang
15. **Windshield** - Kaca Depan
16. **Wiper** - Penghapus Kaca
17. **Clutch** - Kopling
18. **Steering Wheel** - Setir
19. **Axle** - As
20. **Suspension** - Suspensi
21. **Airbags** - Kantong Udara
22. **Airbags** - Kantong Udara





THE RISE OF HYBRIC VEHICLES



<https://www.valvolineglobal.com/en-ksa/hybrid-vehicle-technology/>

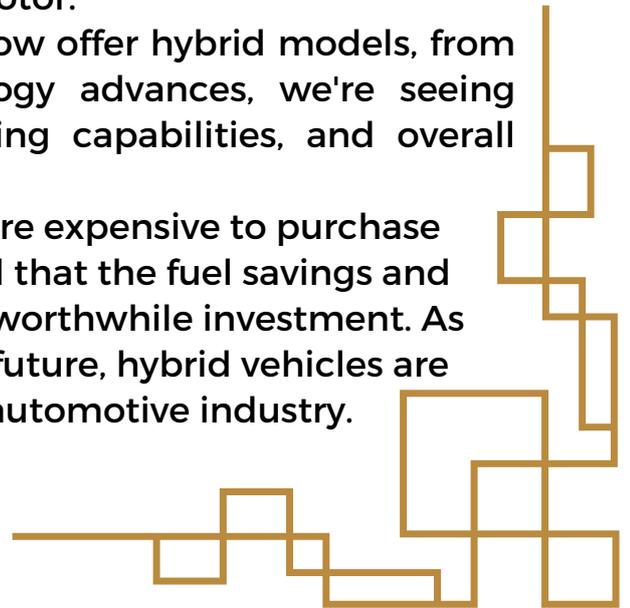
Hybrid vehicles have become increasingly popular in recent years as a more environmentally friendly alternative to traditional gasoline-powered cars. These vehicles combine two or more sources of power, typically a gasoline engine and an electric motor.

The main advantage of hybrid cars is their improved fuel efficiency. By using both an electric motor and a gasoline engine, hybrids can significantly reduce fuel consumption, especially in city driving conditions. This not only saves money for the driver but also reduces harmful emissions.

How do hybrid cars work? When the car is moving at low speeds or idling, it often runs on the electric motor alone, using no gasoline and producing zero emissions. During acceleration or when more power is needed, both the electric motor and the gasoline engine work together. The gasoline engine also charges the battery that powers the electric motor.

Many major car manufacturers now offer hybrid models, from compact cars to SUVs. As technology advances, we're seeing improvements in battery life, charging capabilities, and overall performance of hybrid vehicles.

While hybrid cars are generally more expensive to purchase than traditional cars, many drivers find that the fuel savings and environmental benefits make them a worthwhile investment. As we move towards a more sustainable future, hybrid vehicles are likely to play an important role in the automotive industry.





Let's Practice!

Fill-in the-Blank Exercise

Complete the following sentences using words from the text:

1. Hybrid vehicles combine two or more sources of power, typically a _____ engine and an _____ motor.
2. The main advantage of hybrid cars is their improved _____.
3. When the car is moving at low speeds or idling, it often runs on the _____ motor alone, producing _____ emissions.
4. The gasoline engine charges the _____ that powers the electric motor.
5. While hybrid cars are generally more _____ to purchase than traditional cars, many drivers find the _____ savings make them worthwhile.



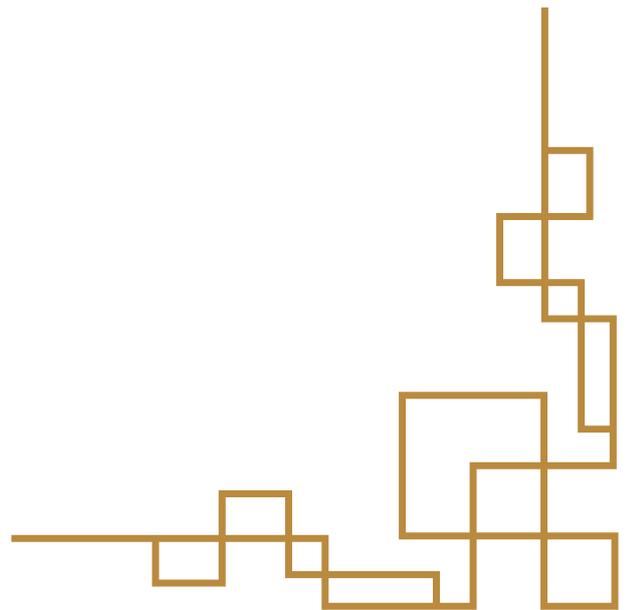


Let's Practice!

True or False Quiz

Mark each statement as True (T) or False (F):

1. ___ Hybrid vehicles are less environmentally friendly than traditional gasoline-powered cars.
2. ___ Hybrid cars can significantly reduce fuel consumption, especially in city driving conditions.
3. ___ The electric motor and gasoline engine always work together in a hybrid car.
4. ___ Hybrid models are only available as compact cars.
5. ___ The fuel savings of hybrid cars can offset their higher purchase price over time.





Let's Practice!

Matching Exercise

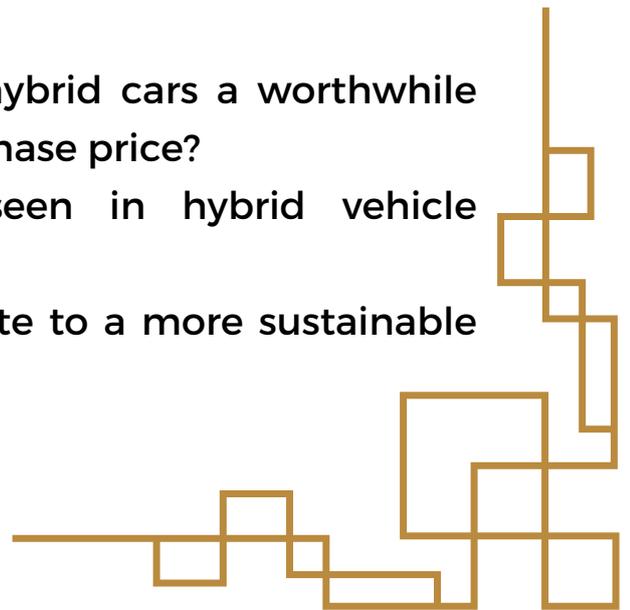
Match the concept with its correct description:

- | | |
|--------------------|--|
| 1. Fuel efficiency | A. Gases released by burning fuel |
| 2. Electric motor | B. Stores energy for the electric motor |
| 3. Emissions | C. Ability to travel further using less fuel |
| 4. Battery | D. Powered by electricity, produces zero emissions |
| 5. Gasoline engine | E. Traditional internal combustion engine |

Short Answer Questions

Answer the following questions based on the information in the text:

1. What are two advantages of hybrid vehicles mentioned in the text?
2. How do hybrid cars work differently at low speeds compared to during acceleration?
3. Why might some drivers consider hybrid cars a worthwhile investment despite their higher purchase price?
4. What improvements are being seen in hybrid vehicle technology?
5. How might hybrid vehicles contribute to a more sustainable future in the automotive industry?





Let's Practice!

Debate/Discussion Topics

Divide into groups and discuss or debate the following topics:

1. Are the environmental benefits of hybrid cars worth their higher purchase price?
2. How might the increasing popularity of hybrid vehicles affect the traditional automotive industry?
3. What potential challenges might arise from the widespread adoption of hybrid vehicles?

Short Answer Questions

Create a concept map that illustrates the key components and benefits of hybrid vehicles. Include terms such as:

- Gasoline engine
- Electric motor
- Battery
- Fuel efficiency
- Emissions
- Environmental benefits
- Cost considerations





HOW TO CHANGE CAR OIL



Source :<https://images.app.goo.gl/r92mJuepPxBLc1CQA>

In regularly changing car oil is an important part of vehicle maintenance. Here are the steps to properly change your car oil.

Tools and Materials Needed :

- New oil according to car specifications
- New oil filter
- Oil filter wrench
- Wrench or socket wrench
- Used oil container
- Funnel
- Gloves
- Cloth or tissue





Steps :

Start by preparing your car: ensure it's on a level surface, warm up the engine for a few minutes to thin the oil, then turn it off and let it cool for 10-15 minutes.

Next, lift the car using a jack and secure it with jack stands for safety. Open the oil cap on top of the engine to speed up drainage and prevent a vacuum. Locate the oil drain plug under the car, place the used oil container underneath, and carefully remove the plug to drain the old oil completely. While the oil is draining, replace the oil filter: locate it on the engine block, remove it using an oil filter wrench, clean the sealing surface, and install the new filter. Once the oil has drained, clean and replace the drain plug, ensuring it's tightened to the manufacturer's specifications. Lower the car back to the ground and add the new oil through the fill hole using a funnel, being careful to add the amount specified in your owner's manual. After replacing the oil cap, start the engine briefly, then check the oil level using the dipstick, adding more if necessary.

Finally, clean up any spills, dispose of the used oil properly at an authorized recycling center, and reset your car's oil change indicator if it has one. Always follow your vehicle manufacturer's specific instructions and safety guidelines when performing this or any maintenance task.





Let's Practice!

Fill-in the-Blank exercise

Objective : To test recall of key terms and steps.

Complete the following sentences :

1. Before beginning the oil change, ensure the car is on a _____ surface.
2. Use a _____ to lift the car and _____ for safety.
3. The _____ is removed to allow the old oil to drain.
4. Apply a little new oil to the _____ of the new oil filter before installation.
5. After adding new oil, use the _____ to check the oil level.





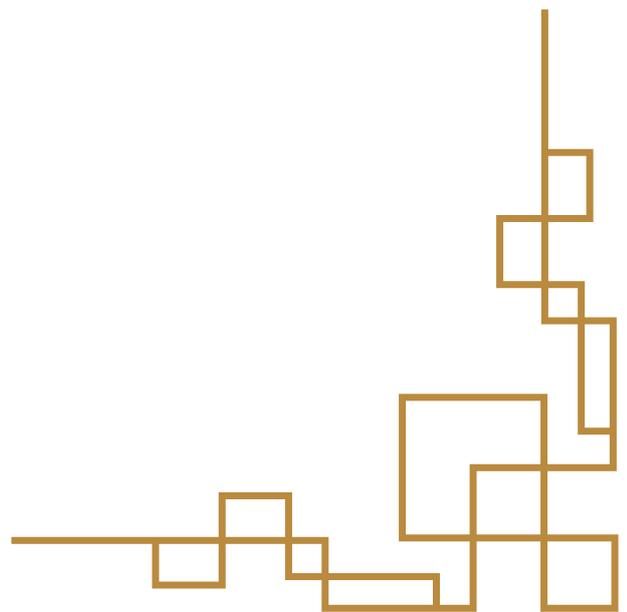
Let's Practice!

True or False Quiz

Objective: To check understanding of the procedure and safety measures.

Mark each statement as True (T) or False (F):

1. ____ It's okay to change oil when the engine is cold.
2. ____ You should use jack stands in addition to a jack for safety.
3. ____ The old oil filter should be tightened with a wrench.
4. ____ It's important to check for leaks after adding new oil.
5. ____ Used oil can be disposed of in regular trash.





Let's Practice!

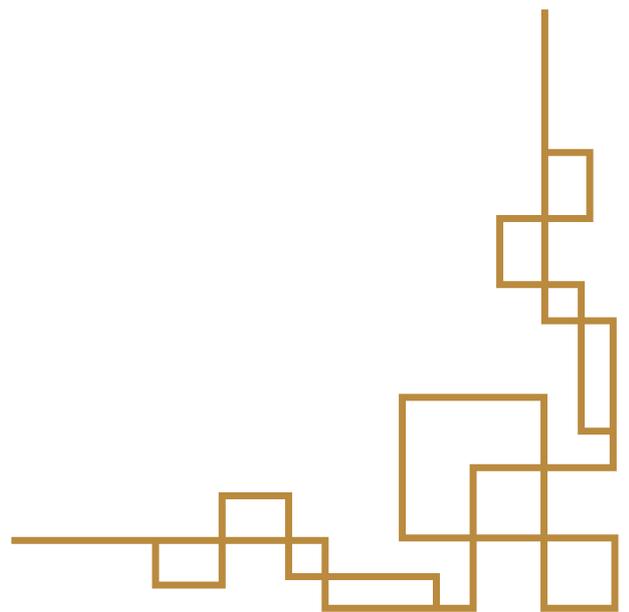
Tool Identification

Objective : To familiarize students with the tools used in an oil change.

Materials : Various tools used in an oil change (or pictures of them).

Instructions:

1. Display various tools (or pictures) including some not used in oil changes.
2. Have students identify which tools are needed for an oil change and explain their use.





Let's Practice!

Problem-Solving Scenarios

Objective : To apply knowledge to potential real-world situations.

Discuss how you would handle these scenarios:

- 1.You notice oil leaking after completing an oil change. What might be the cause and how would you fix it?
- 2.The oil drain plug seems to be stuck. What should you do?
- 3.You accidentally add too much oil. Why is this a problem and how can you correct it?





HOW TO CHECK CAR TIRE PRESSURE

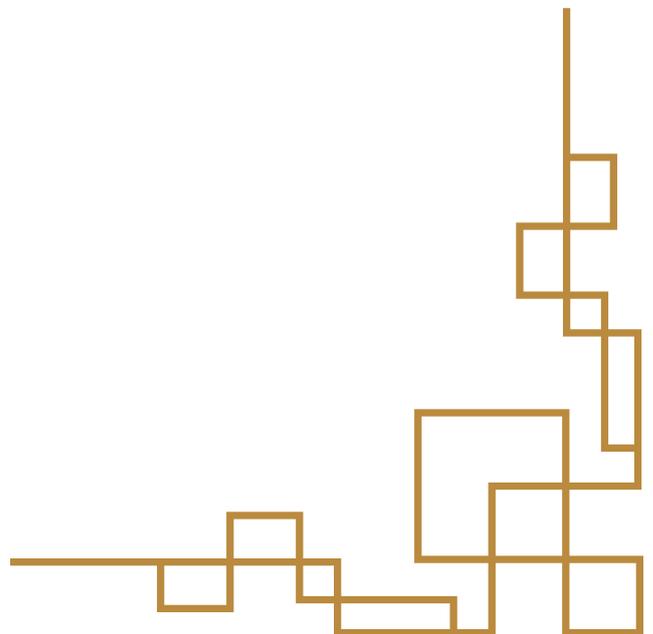


Source :<https://images.app.goo.gl/5PRb2r5YMWbKrLR79>

Regularly checking tire pressure is crucial for maintaining your vehicle's safety and fuel efficiency. Follow these steps to check your car tire pressure:

Tools Required :

- Tire pressure gauge
- Tire pump (if necessary)





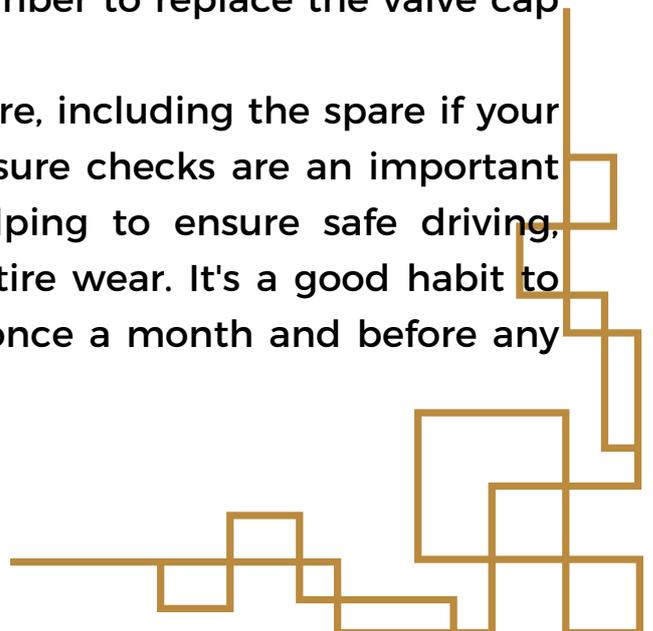
Steps :

Before beginning the tire pressure check, it's crucial to ensure your car is parked on level ground and that the tires are cold, as warm tires can give inaccurate readings. Start by referring to the recommended tire pressure for your specific vehicle, which you can typically find on a sticker inside the driver's door frame or in your owner's manual. Once you have this information, you're ready to begin the check.

Begin with one tire at a time. Carefully unscrew the valve cap from the tire, making sure to place it somewhere safe to prevent misplacement. Next, take your tire pressure gauge and press it firmly onto the tire valve. Listen carefully as you do this – you shouldn't hear any sound of air escaping, which would indicate that the gauge isn't properly attached. Once the gauge is securely in place, you can read the pressure measurement displayed on it.

Compare the reading on your gauge with the recommended tire pressure specifications you found earlier. If the pressure is below the recommended level, you'll need to add air. Use a tire pump to inflate the tire, checking the pressure periodically until it reaches the correct level. Remember to replace the valve cap securely once you're done.

Repeat this process for each tire, including the spare if your vehicle has one. Regular tire pressure checks are an important part of vehicle maintenance, helping to ensure safe driving, optimal fuel efficiency, and even tire wear. It's a good habit to check your tire pressure at least once a month and before any long trips.



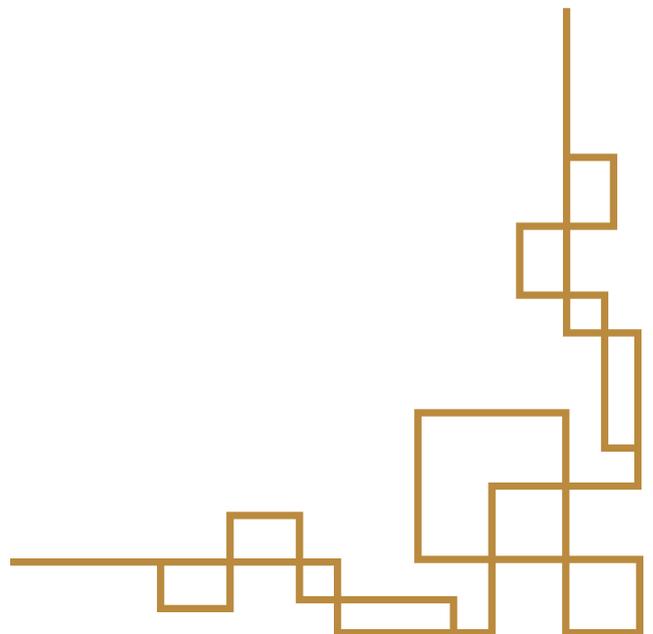


Let's Practice!

Fill-in the-Blank Exercise

Complete the following sentences using words from the text:

1. Before checking tire pressure, ensure the car is on _____ ground and the tires are _____.
2. The recommended tire pressure can typically be found on a sticker inside the _____ door frame or in the _____ manual.
3. When attaching the pressure gauge, ensure there is no sound of _____ escaping.
4. If the pressure is below the recommended level, use a tire _____ to add air.
5. It's a good habit to check your tire pressure at least once a _____ and before any _____ trips.





Let's Practice!

True or False Quiz

Mark each statement as True (T) or False (F):

1. ____ Warm tires give more accurate pressure readings than cold tires.
2. ____ The valve cap should be discarded after removal.
3. ____ You should hear air escaping when you attach the pressure gauge correctly.
4. ____ It's important to check the pressure of your spare tire as well.
5. ____ Tire pressure only needs to be checked once a year.





Let's Practice!

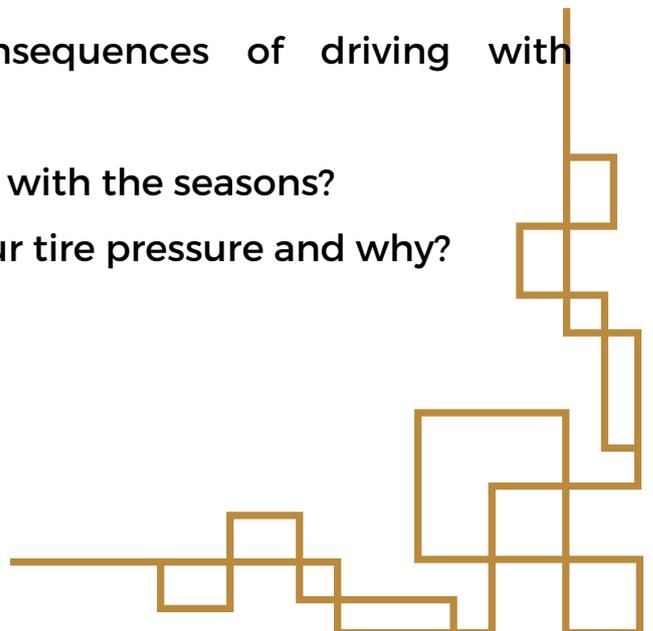
Matching Exercise

Match the term with its correct description:

- | | |
|-------------------|--|
| 1. Valve cap | A. Device used to measure tire pressure |
| 2. Tire pump | B. Provides recommended pressure information |
| 3. Pressure gauge | C. Used to add air to tires |
| 4. Owner's manual | D. Protects the tire valve from debris |
| 5. Level ground | E. Ensures accurate pressure readings |

Short Answer Questions

1. Why is it important to check tire pressure when the tires are cold?
2. How does proper tire inflation contribute to vehicle safety and efficiency?
3. What are the potential consequences of driving with underinflated tires?
4. Why might tire pressure change with the seasons?
5. How often should you check your tire pressure and why?





HOW TO CHECK CAR BRAKES



Source:<https://images.app.goo.gl/7G7Lq1xDnJoy3SQQ8>

Checking the brake system is essential for maintaining vehicle safety. Below are the key steps to assess the condition of your car brakes:

Tools and Materials Required :

- Wrench or socket wrench
- Car jack and jack stand
- Flashlight or work light
- Ruler or caliper (optional)
- Gloves and safety glasses

○



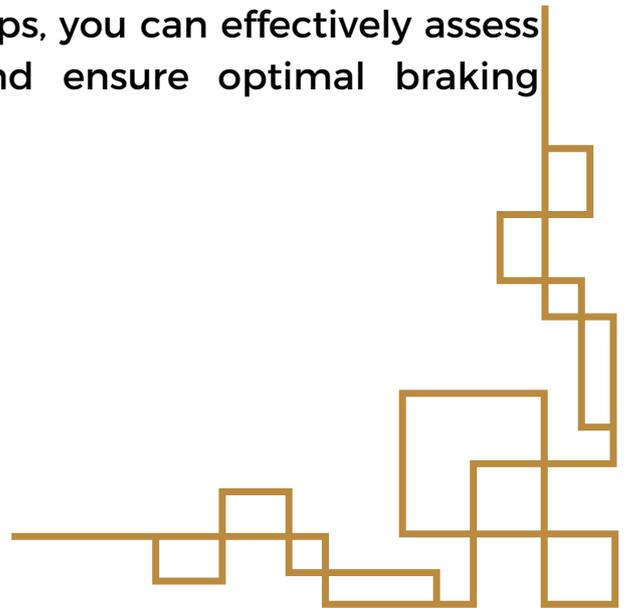


Steps :

To conduct a thorough brake system inspection, begin by parking the vehicle on a flat surface and engaging the parking brake, using wheel chocks for added safety. Raise the vehicle using a jack and secure it with a jack stand, elevating one side to allow the wheel to turn freely. Remove the wheel by loosening the nuts with a wrench or socket wrench, and store it securely. Inspect the brake pads through the caliper hole or by removing the caliper; worn pads typically measure less than 3 mm in thickness.

Examine the brake rotor or disc for scratches, cracks, or uneven wear, and confirm its thickness aligns with manufacturer specifications. Check the brake fluid level in the reservoir, ensuring it's between the minimum and maximum marks, and assess its color – replace if it appears dirty or dark. Scrutinize brake hoses and connections for leaks, cracks, or signs of wear, ensuring all connections are secure.

After completing the inspection, reattach the wheel securely, tightening the nuts appropriately, and lower the vehicle. Conclude with a brief test drive to verify proper brake functionality, remaining attentive to unusual sounds, vibrations, or diminished brake efficacy. Regular brake system evaluations are crucial for maintaining vehicle safety and efficiency. By following these steps, you can effectively assess your vehicle's brake health and ensure optimal braking performance.



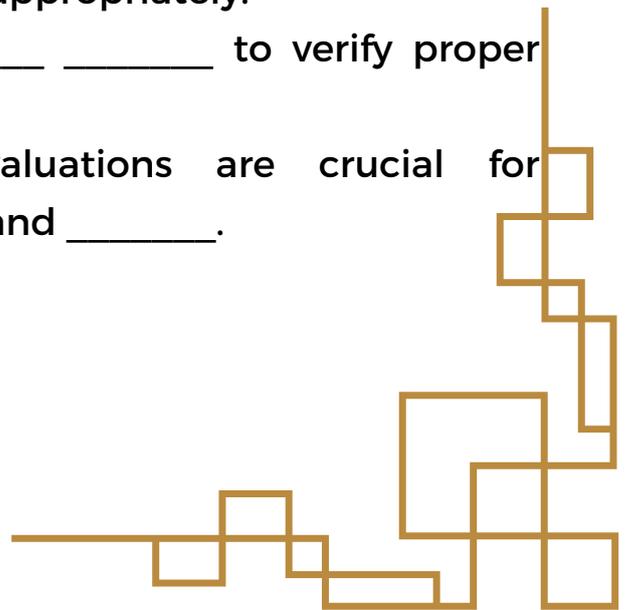


Let's Practice!

Fill-in the-blanks

Complete the following sentences using terms from the brake inspection procedure:

1. Before beginning the inspection, park the vehicle on a _____ surface and engage the _____ brake.
2. For added safety, use _____ _____ to prevent the vehicle from rolling.
3. Raise the vehicle using a _____ and secure it with a _____.
4. Inspect the brake pads through the _____ hole or by removing the _____.
5. Worn brake pads typically measure less than _____ mm in thickness.
6. Examine the brake _____ or disc for scratches, cracks, or uneven wear.
7. Check the brake _____ level in the reservoir, ensuring it's between the _____ and _____ marks.
8. After completing the inspection, _____ the wheel securely, tightening the nuts appropriately.
9. Conclude with a brief _____ _____ to verify proper brake functionality.
10. Regular brake system evaluations are crucial for maintaining vehicle _____ and _____.



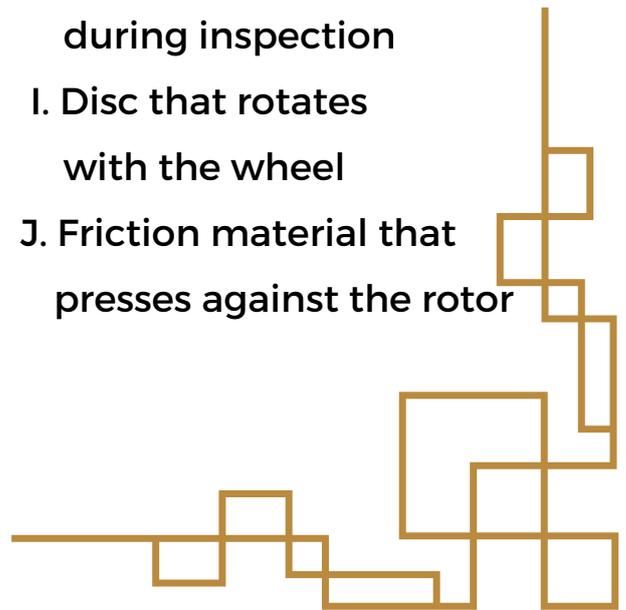


Let's Practice!

Matching Definitions

Match the terms on the left with their correct definitions or descriptions on the right :

- | | |
|----------------------------|---|
| 1. Wrench or socket wrench | A. Used to lift the vehicle off the ground |
| 2. Car jack | B. Prevents vehicle during inspection |
| 3. Jack stand | C. Optional tool for precise measurements |
| 4. Flashlight | D. Secures the vehicle in raised position |
| 5. Caliper | E. Protective wear for hands during inspection |
| 6. Wheel chocks | F. Tool for loosening and tightening nuts |
| 7. Brake rotor | G. Contains the brake fluid |
| 8. Brake pads | H. Illuminates dark areas during inspection |
| 9. Brake fluid reservoir | I. Disc that rotates with the wheel |
| 10. Safety glasses | J. Friction material that presses against the rotor |





HOW TO CHECK CAR LIGHTS AND ELECTRICAL SYSTEM

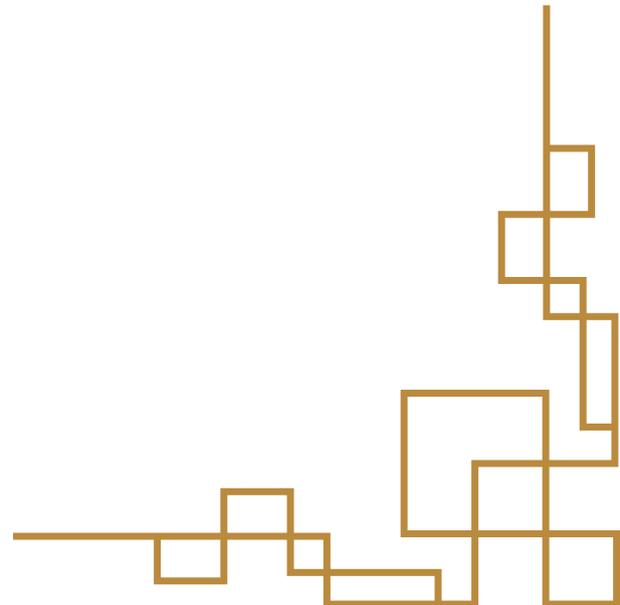


Source :<https://images.app.goo.gl/Wh44EzuXNsCsRt6V6>

Inspecting the car lights and electrical system is essential for vehicle maintenance to ensure safety and functionality. Here are the basic steps to assess the condition of car lights and the electrical system.

Tools and Materials Required :

- Multimeter or voltage meter
- Screwdriver
- Gloves and safety glasses
- Spare bulbs (if necessary)
- Cloth





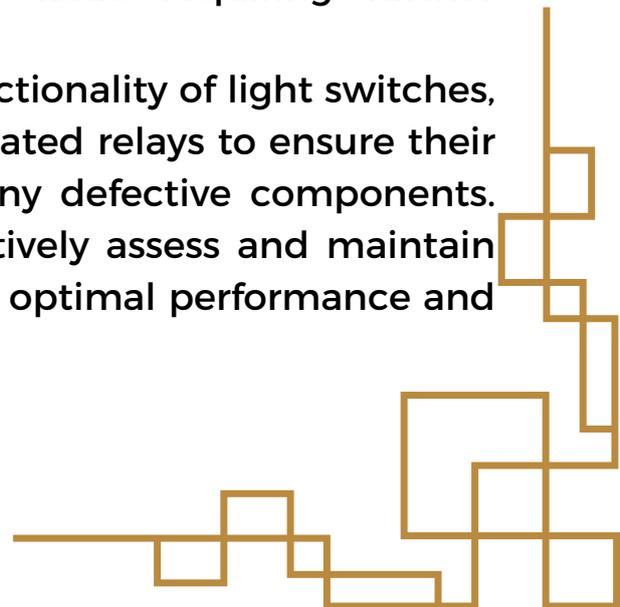
Steps :

To conduct a thorough inspection of a vehicle's electrical system, begin by parking the vehicle in a safe, level location and turning off the engine. Open the hood and check the battery health, ensuring the terminals are free of corrosion and securely attached. Use a multimeter to measure the battery voltage, which should read around 12.6 volts when the engine is off and 13.7-14.7 volts when running. Next, locate and inspect the fuse box, examining fuses associated with the lights or electrical system under review, and replace any blown or damaged fuses.

Activate the vehicle to verify the proper functioning of headlights, taillights, brake lights, and turn signals. If any lights are defective, remove the light cover to examine the bulb's condition and replace burnt-out bulbs. Don't forget to check interior lighting components, including cabin and trunk lights, replacing any malfunctioning bulbs as needed.

Carefully scrutinize cable connections related to the lights and electrical system, identifying and securing any loose connectors, and repairing damaged cables by insulating them appropriately. To assess the charging system, use a multimeter to check the alternator's voltage output while the engine is running; the reading should fall within 13.7-14.7 volts. If the voltage deviates from this range, it may indicate an alternator issue requiring further examination.

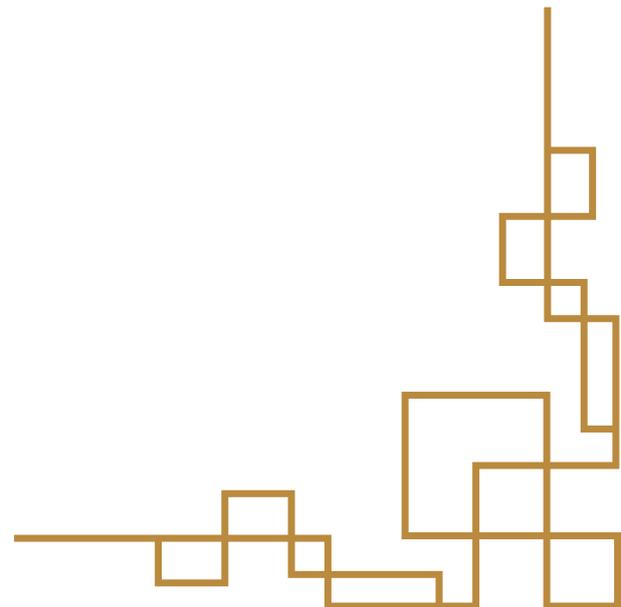
Finally, thoroughly examine the functionality of light switches, brake switches, and electrical system-related relays to ensure their proper operation, promptly replacing any defective components. By following these steps, you can effectively assess and maintain your vehicle's electrical system, ensuring optimal performance and safety.





Short Answer Questions :

1. Describe the process of checking the battery health during an electrical system inspection. What specific aspects should be examined, and what tool is used to measure battery voltage?
2. What is the proper voltage range for a car battery when the engine is off and when it's running? Why is it important to check both conditions?
3. Explain the steps involved in inspecting and troubleshooting vehicle lights (headlights, taillights, brake lights, and turn signals). What should you do if a light is not functioning properly?
4. How would you assess the charging system of a vehicle? What tool is used, and what voltage range indicates proper functioning of the alternator?
5. Besides checking lights and the battery, what other components of the vehicle's electrical system should be inspected? Why are these components important to examine?





HOW TO START A MANUAL CAR

Do you know how to start a manual car ? There are four steps to do it. Here they are.

First, you need to insert your car key into the ignition.

Second, you need to make sure that your car is in neutral. Press down the pedal on the clutch until it hits the floor. After that, you move the gear level into the neutral (central) position.

Third, you need to make sure the handbrake, which can be found on the centre console or behind the gear on the passenger side of the driver's seat, is on. Before you switch on the ignition and start your car, ensure that the handbrake is at a 45-degree angle.

Last, once the car is in neutral, you are ready to turn the key in the ignition and start the car. To let the engine get up to speed, you need to wait for a few seconds before driving away.





Let's Practice!

Sequencing Steps :

Objective : Understand the sequence of steps to start a manual car.

Instructions :

Arrange the steps in the correct order.

- Wait a few seconds before driving away.
- Ensure the handbrake is on.
- Make sure the car is in neutral and press down the clutch.
- Insert the car key into the ignition.

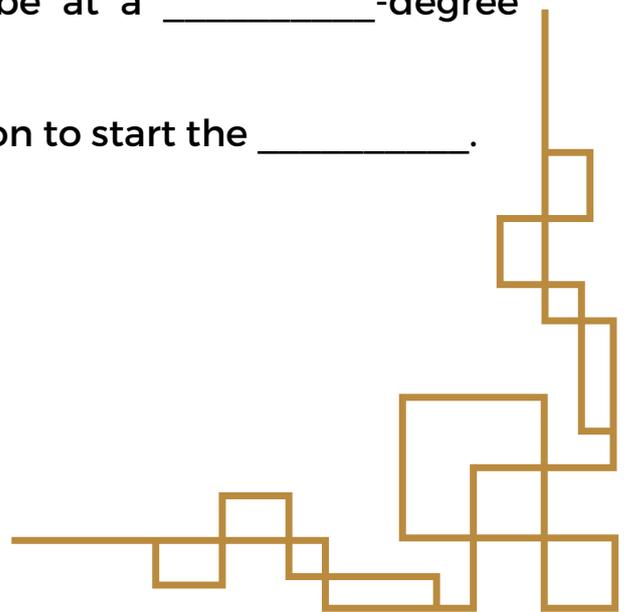
Fill-in the-Blanks

Objective : Reinforce vocabulary and comprehension.

Instructions:

Provide the following sentences with missing words:

- First, insert your car key into the _____.
- Ensure the car is in _____ and press down the clutch.
- The handbrake should be at a _____-degree angle.
- Turn the key in the ignition to start the _____.





Let's Practice!

True or False

Objective : Test comprehension of key details.

Instructions:

Read the following statements and decide if they are true or false:

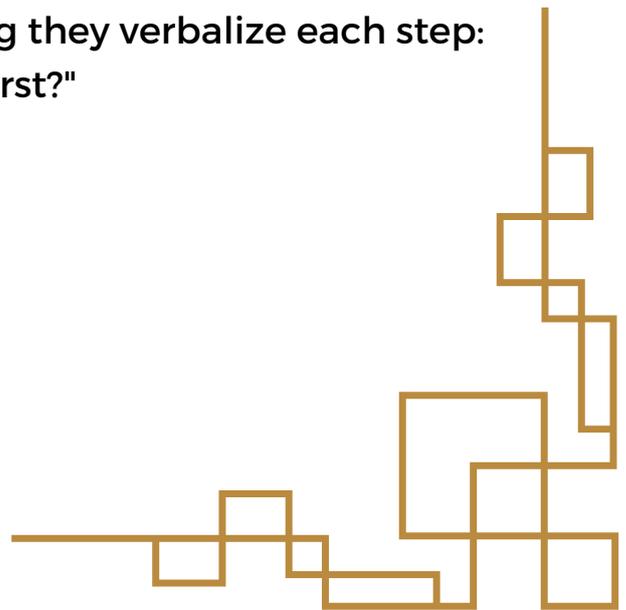
- The handbrake should be at a 90-degree angle when starting the car.
- You must press the clutch pedal before moving the gear lever to neutral. (True)
- You can start the car without inserting the key into the ignition. (False)

Role Play

Objective : Practice verbal skills and reinforce the steps.

Instructions:

1. Pair up participants. One will act as the driver and the other as an instructor.
2. The instructor guides the driver through the steps of starting a manual car, ensuring they verbalize each step:
 - "What do you need to do first?"
 - "Is the handbrake on?"





FIVE STEPS TO START AN AUTOMATIC CAR



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Do you know how to start an automatic car? There are five steps to do it. Here are five steps you need to know.

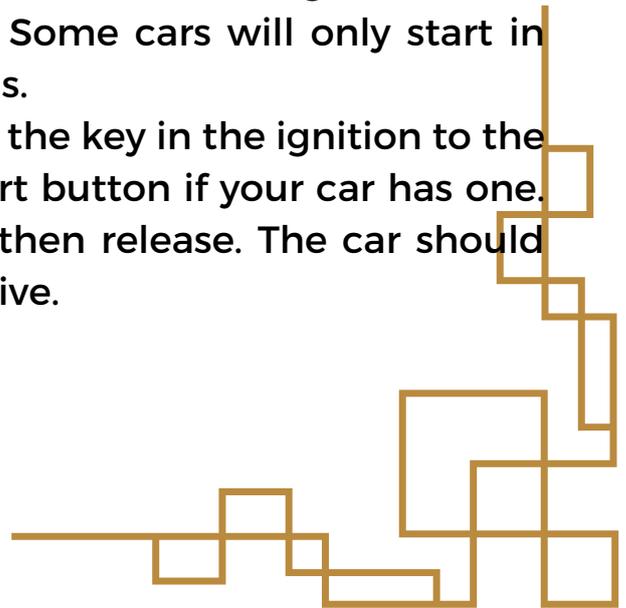
First, Ensure Safety: Before starting the car, make sure you're seated comfortably with your seatbelt fastened. Adjust your mirrors and seat position if necessary.

Second, Insert the Key or Press the Start Button: If your car has a traditional key ignition, insert the key into the ignition slot. For cars with push-button start, ensure the key fob is inside the car.

Third, Apply the Brake: Press and hold down the brake pedal with your right foot. Most automatic cars require the brake to be depressed before they will start.

Fourth, Select the Correct Gear: Ensure the gear selector is in "P" (Park) or "N" (Neutral). Some cars will only start in these positions for safety reasons.

Fifth, Start the Engine: Turn the key in the ignition to the "Start" position, or press the start button if your car has one. Hold it until the engine starts, then release. The car should now be running and ready to drive.

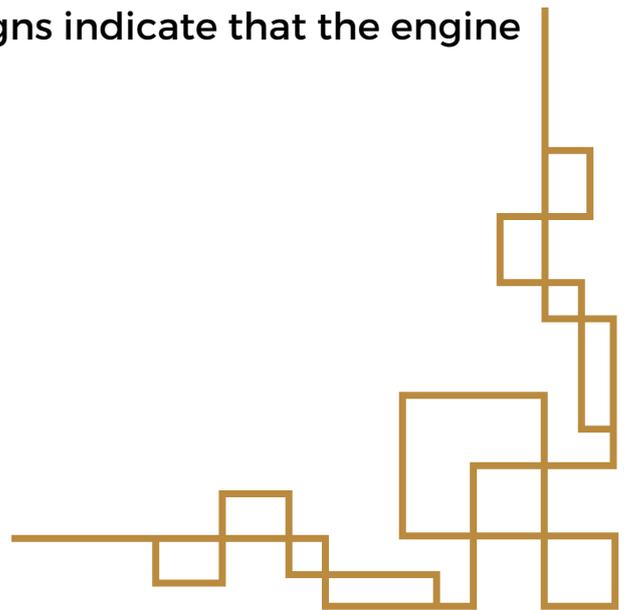




Let's Practice!

Short Answer Questions

1. What safety measure should you take before starting the car, and why is it important?
2. Describe the two common methods of initiating the start sequence in modern cars. How do they differ?
3. Which pedal must be engaged before starting most automatic cars, and why is this a necessary step?
4. In what gear positions can most automatic cars be started? Why are these positions typically required?
5. Explain the process of starting the engine in both a key ignition system and a push-button start system. What should you do once the engine has started?
6. Why is it important to refer to your vehicle's owner manual when learning how to start your car?
7. What adjustments might you need to make before starting the car to ensure safe driving?
8. How does the starting process for an automatic car differ from that of a manual transmission car?
9. What should you do if the car doesn't start on the first attempt?
10. Once the car is started, what signs indicate that the engine is running properly?





HOW TO REPLACE A CAR BATTERY



<https://www.rac.co.uk/drive/advice/car-maintenance/how-to-change-a-car-battery-all-you-need-to-know/>

Replacing a car battery constitutes a fundamental aspect of vehicle maintenance that can be performed independently with adherence to specific safety protocols. Below are the outlined steps for replacing a car battery.

Tools and Materials required :

- Protective gloves and safety glasses
- Wrench or socket wrench
- Wire brush (if necessary for terminal cleaning)
- New battery
- Car jack and jack stand (if required)
- Anti-seize grease (if necessary)



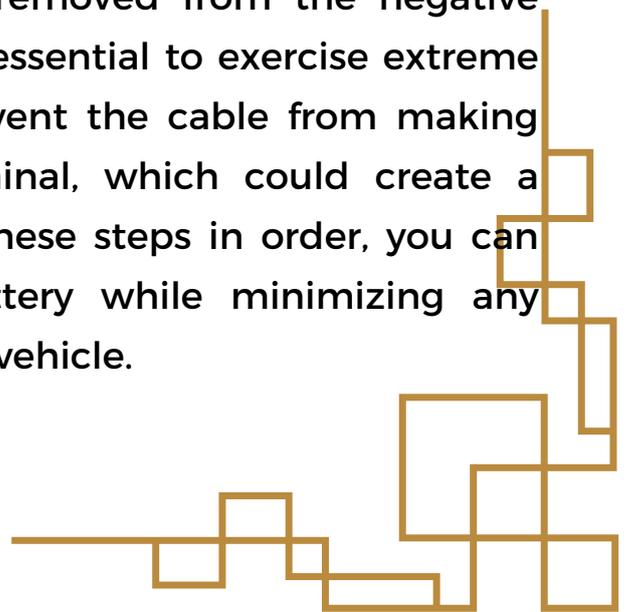


Steps :

The process of safely disconnecting a car battery begins with essential preparatory measures. First, ensure that the engine is turned off and the vehicle is securely parked on a level surface with the handbrake engaged. This prevents any unexpected movement during the procedure. It's crucial to prioritize personal safety by wearing protective gloves and safety glasses, which shield against potential chemical exposure from battery acid and any accidental sparks that might occur.

Once these safety precautions are in place, the next step is to deactivate all electrical systems within the vehicle. This includes turning off all lights, the radio, and any other electronic components that might be drawing power. Powering down these systems helps prevent any electrical surges or short circuits that could potentially damage the vehicle's electrical components during the disconnection process.

The final and most critical step is disconnecting the negative (ground) cable from the battery. This cable is typically black and should be removed from the negative terminal of the battery first. It's essential to exercise extreme caution during this step to prevent the cable from making contact with the positive terminal, which could create a dangerous spark. By following these steps in order, you can safely disconnect your car battery while minimizing any potential risks to yourself or your vehicle.

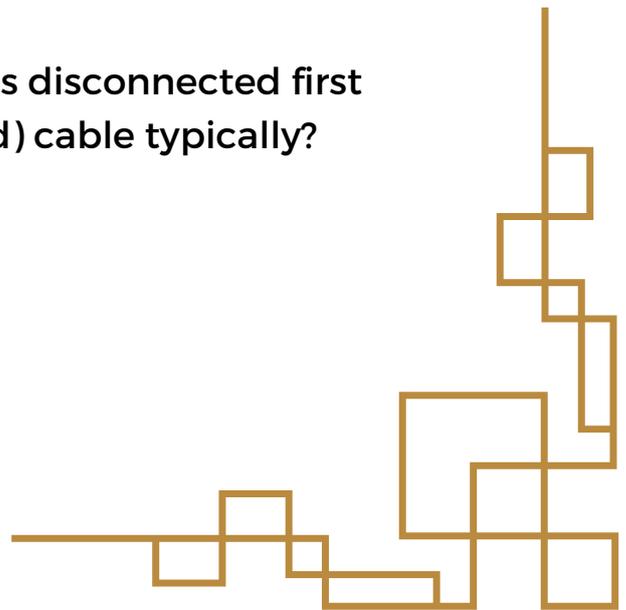




Let's Practice!

Multiple Choice Questions

1. What should you do first before disconnecting a car battery?
 - A. Turn on all the lights
 - B. Ensure the engine is running
 - C. Ensure the engine is off and the vehicle is securely parked
 - D. Disconnect the positive cable
2. What safety gear should you wear when disconnecting a car battery?
 - A. Protective gloves only
 - B. Safety glasses only
 - C. Protective gloves and safety glasses
 - D. No safety gear is necessary
3. Why is it important to power down all internal electrical systems before disconnecting the battery?
 - A. To save electricity
 - B. To prevent potential electrical surges or short circuits
 - C. To make the car lighter
 - D. It's not important to power down electrical systems
4. Which cable should be disconnected first from the battery?
 - A. The positive (red) cable
 - B. The negative (black) cable
 - C. Both cables simultaneously
 - D. It doesn't matter which cable is disconnected first
5. What color is the negative (ground) cable typically?
 - A. Red
 - B. Blue
 - C. Green
 - D. Black

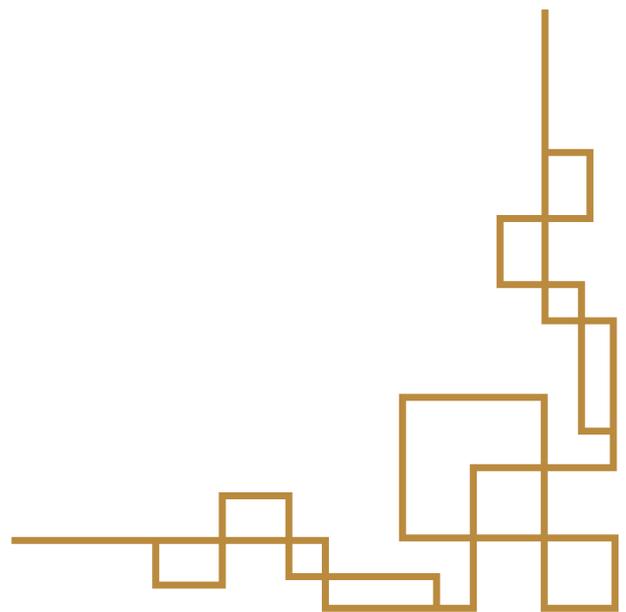




Let's Practice!

True or False Questions

- 1.It's safe to disconnect a car battery while the engine is running.
- 2.You should disconnect the positive cable before the negative cable.
- 3.The vehicle should be parked on a level surface when disconnecting the battery.
- 4.It's not necessary to turn off the radio and lights before disconnecting the battery.
- 5.Caution should be exercised to prevent the negative cable from contacting the positive terminal.

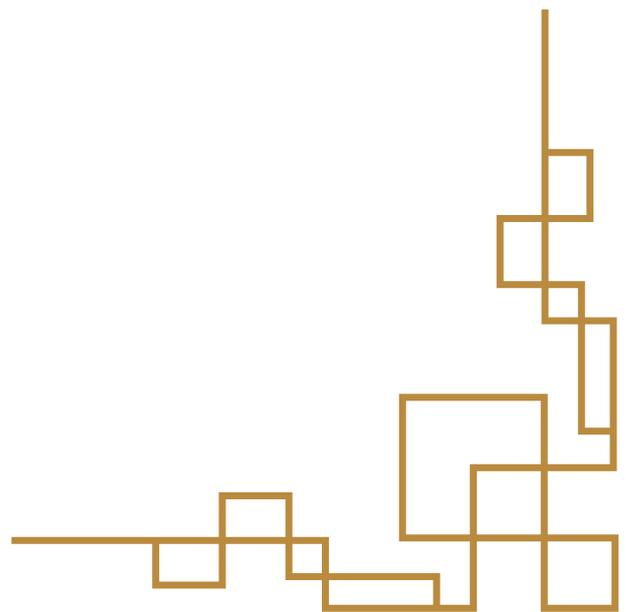




Let's Practice!

Short Answer Questions

1. Explain why it's important to wear protective gear when disconnecting a car battery.
2. List the three main steps in the correct order for safely disconnecting a car battery.
3. What potential risk exists if the negative cable contacts the positive terminal during disconnection?
4. Why is it recommended to disconnect the negative cable first?
5. Describe the ideal parking conditions for a vehicle before disconnecting its battery.



ASSESSMENT SUMMATIVE

Part 1

1. What tools and materials do you need to change your car's oil?
2. How often should you change your car's oil?
3. What type of oil is best for your car?
4. How do you safely lift your car to access the oil drain plug?
5. What steps should you follow to drain the old oil?
6. How can you tell if your tire pressures are too low or too high?
7. What should you do if your tire pressures are too low?
8. How does temperature affect tire pressure?
9. How can you test your brakes while driving?
- 10.10. What should you do if you suspect your brakes are not functioning properly?

ASSESSMENT SUMMATIVE

Part 2

1. What tools do you need to check your car's lights and electrical system?
2. How often should you inspect your car's lights and electrical system?
3. What are the signs that a car light bulb needs to be replaced?
4. How do you check if your car's headlights are properly aligned?
5. What should you look for when inspecting your car's tail lights and brake lights?

ASSESSMENT SUMMATIVE

Part 3

1. What tools do you need to replace your car battery?
2. How do you know when your car battery needs to be replaced?
3. What safety precautions should you take when replacing a car battery?
4. How do you choose the right battery for your car?
5. What are the steps to properly disconnect the old battery?

ASSESSMENT SUMMATIVE

Part 4

1. What tools do you need to replace your car battery?
2. How do you know when your car battery needs to be replaced?
3. What safety precautions should you take when replacing a car battery?
4. How do you choose the right battery for your car?
5. What are the steps to properly disconnect the old battery?

AUTHOR'S PROFILE

ST. RISMAWATI NASIR, S.Pd., was born on August 7th 1982, in Palopo. She is the third of seven children from the marriage of her parents Drs. Muhammad Nasir (father) and Mahlamang (mother). She lives in Belopa Sub-District, Luwu District, South Sulawesi, Indonesia.

She began her Elementary School in 1989 at SD Negeri 22 Belopa and graduated in 1995. She then continued her study at SMP Negeri 1 Belopa and graduated in 1998. At the same year, she continued her study at SMU Negeri 1 Belopa and graduated in 2001.

In 2001 she continued her study at STKIP Cokroaminoto Palopo choosing the Faculty of Teachers Training and Education majoring English Department. At the fifth semester she moved at Muhammadiyah University of Makassar with the same faculty and graduated in 2006.

In 2007 she taught at SMKN 1 Belopa as an honorary staff member and in 2009 she was appointed as ASN at the school where it remains today and changed its name to SMKN 2 Luwu. In the same year she registered as a postgraduate student at Makassar State University majoring in English Education but in the end she did not complete her thesis.

In 2009, she married YAKUB, S.Pd. and blessed with 2 children. Then in 2019 she attended professional teacher education training at the Muhammadiyah University of Pare-Pare and was given the designation of English teacher profession (gr).

In 2021 as treasurer of the Luwu branch quarterly scouts until now

In 2021 to 2022 as treasurer of BOS SMKN 2 Luwu.

In 2022, she then re-registered as a postgraduate student at IAIN Palopo, Department of English Education, until now.

In 2024 as head of the library at SMKN 2 Luwu until now

2024

