

Development of Graphic Organizers as Web-Based Learning in Writing an Opinion Essay

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ABSTRACT

The study aims to describe the development process of readymade graphic organizers applied in web-based learning (WBL) to increase students' ability to write opinion essays. The method was R and D using the ADDIE model (Analysis, Design, Development, Implementation, and Evaluation). To obtain the data, the researcher used a questionnaire using a 5-point Likert Scale. The questionnaires were distributed to experts and users, and the result revealed that the overall average was 4.616 (4.62) and categorized perfectly. The product worked well, whereas the readymade graphic organizers assisted learners in writing their opinion essays cohesively and coherently. The learning materials in this WBL use YouTube to help students learn about elements of writing and language individually and independently. Developing this product in web-based learning is cognized of the ethical dimension, institution, management, technology, pedagogy, interface system, source, and evaluation. The graphic organizer applied to web-based learning endowed positive values to lecturers and scholars.

Keywords: Graphic Organizers, Opinion Essay, Web-Based Learning, Writing.

INTRODUCTION

At the beginning of 2020, the world was shocked by the spread of Covid 19, which disrupted all aspects of human life, such as working, schooling, and health. This pandemic impact is enormous whereas. Many workers are unemployed, many students study at home, and people are infected with this virus. This condition happened in Indonesia, where the current data of Covid (12 August 2021) was 3774155 confirmed cases, 113664 deaths, and 3247711 recovered. (<https://www.who.int/indonesia/news/novel-coronavirus>).

During this pandemic, the Indonesian government thought of solving this problem to discontinue the coronavirus expansion. The Minister of Education and Culture, Nadiem Makariem, issued a policy about education in Indonesia. Schools and universities in regencies implementing the government's multi-tier mobility restrictions levels 3 and 4 should be closed and do online or distance learning (<http://www.thejakartapost.com>). To support this decision, educational institutions

have prepared online media instructional courses to lecture subjects relating to the needs of students, including those learning a foreign language at the university level.

Learning a language, either a native language or a foreign language will improve brain function. The brain will be challenged to recognize, comprehend, and communicate the language's structure and vocabulary that needs to be applied in four core language skills: reading, listening, writing, and speaking. One of four basic language skills, writing is an activity to convert an idea or concept into written form. Writing necessitates congruent practice to achieve well-written thought in the paper and linguistic devices (Hardianti et al., 2023; Hasnawati et al., 2023).

Writing is the most complicated skill compared to listening, reading, and speaking because it demands knowledge of the topic and writing components. In the EFL/ESL setting, the teaching of writing started with the Grammar Translation Method in which students were given text in the target language and writing translation in their first language or vice versa. Then, the Audio Lingual Method emphasized speech as a primary activity and writing as an aid to strengthen speech, focusing on mastering grammatical and syntactic forms. In Communicative Language Teaching, students writing using English must apply linguistic communication skills (Cahyono & Widiati, 2011).

The teaching of writing, especially writing an opinion essay in the English Department of UNIMA during covid faced some issues and challenges, such as lecturers transforming their teaching from traditional to virtual teaching, they did not know how to submit their teaching material to educational online platforms, most of the students geographically lived in different areas in Indonesia. Students living in rural areas or islands had a problem with the internet signal, causing them not to join lecturing on time.

Based on the explanation of the lectures and the students' teaching-learning process of writing during pandemic covid 19, our team will describe the development of graphic organizers as media instructional for online learning or web-based learning to enhance students' ability to write opinion essays. This graphic configuration is a writing aid to keep the students interested in writing their essays. It will be combined with learning materials for writing, learning objectives, and text.

THEORETICAL FRAMEWORK

GO and Writing Relating to Technology

In the 21st century, technology is used as an aid device to effectively ease students' assignments in and out of the classroom. Writing conventionally and unconventionally is a complex process that requires pupils to prewrite, draft, revise, edit, and publish their product. Writing with technology instruments such as computers, smartphones, laptops, tablets, applications, and web-based learning can improve students' writing skills, knowledge, and proficiency in reading-writing (Williams & Beam, 2018).

Some research articles discuss the results of the writing and design of GOs connected to technology. It began when Ponce et al. (2013) conducted computer-based graphic organizers instruction integrating reading and writing using the rhetorical

structure of text type (narrative and expository) for 4th, 6th, and 8th grades in Chile. The experimental group that studied writing through computer applications outperformed the control group. The students comprehend text structure well so that their writing describes completely the elements of narrative and expository text.

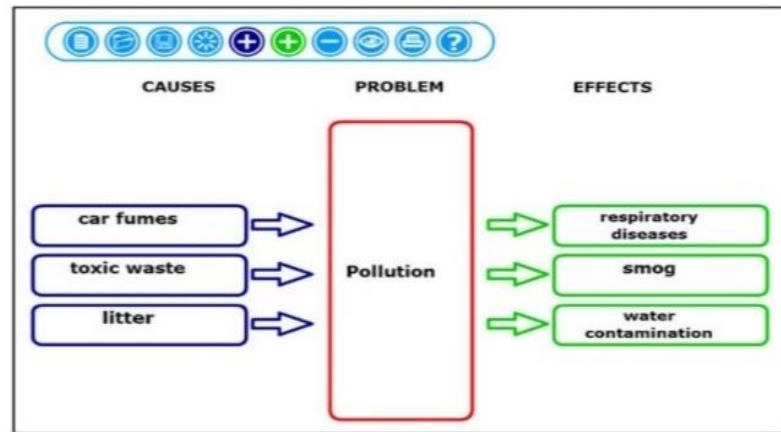


Figure 1. GOs for cause-effect

Mochizuki et al. (2019) experimented with a graphic organizer called Knowledge Panel to integrate reading and writing to increase students' argumentative reading and writing. In the argumentative composition for this study, Mochizuki and the team devoted Toulmin's model to the first and second-year university students in Japan. The students installed the software on their PCs. Thirty-four university students who applied Knowledge Panel software as a treatment group could create their own knowledge organizers and achieve better writing argumentative essays based on Toulmin's pattern (Figure 2 as Knowledge Panel created by students).

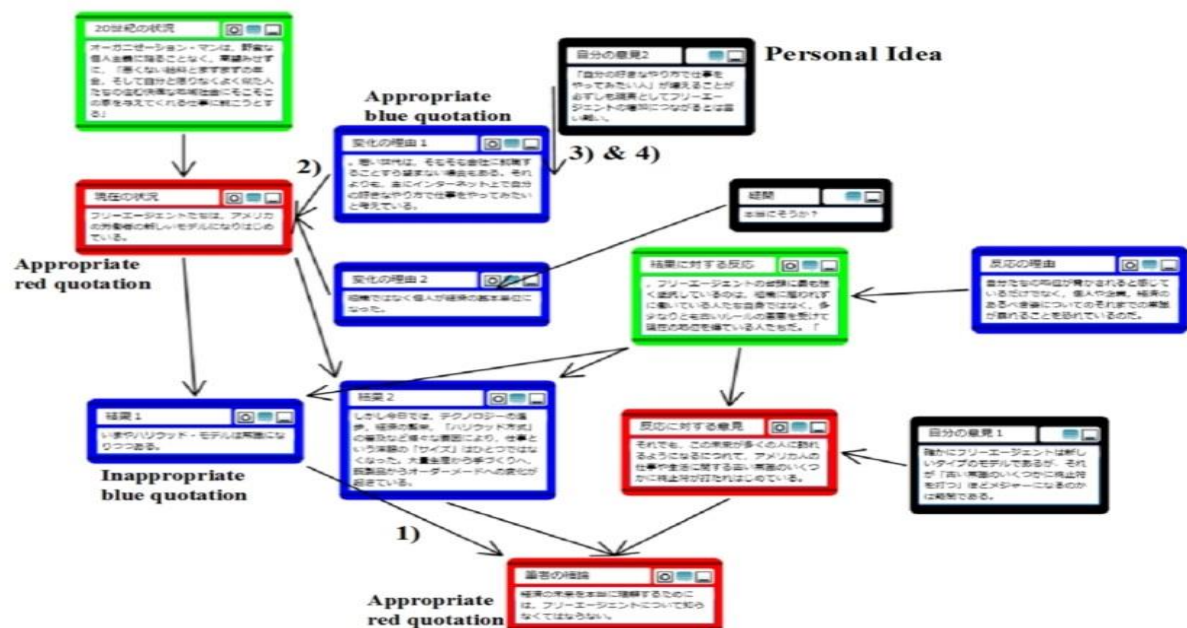


Figure 2. Knowledge Panel

Cheng and Gwo (2019) designed a computer-aided argumentative essay writing system (CAEWS) based on Toulmin's argumentative essay formula. This study was conducted in the 6th grade of an elementary school in Taiwan. The structure of the digital map graphically consisted of claims, evidence, reasons, rebuttals, and conclusion. The students who participated in this research were divided into two groups: CAEWS, or digital argument map, as an experimental group, and non-digital graphic organizers (concept map and conventional argumentative graphic organizers) as the control group. They found that students who applied digital organizers for argumentative essays had better than non-digital tools. The pupils wrote the essay cohesively and provided strong arguments supported by reasonable claims and proper evidence (Figure 3, CAEWS).

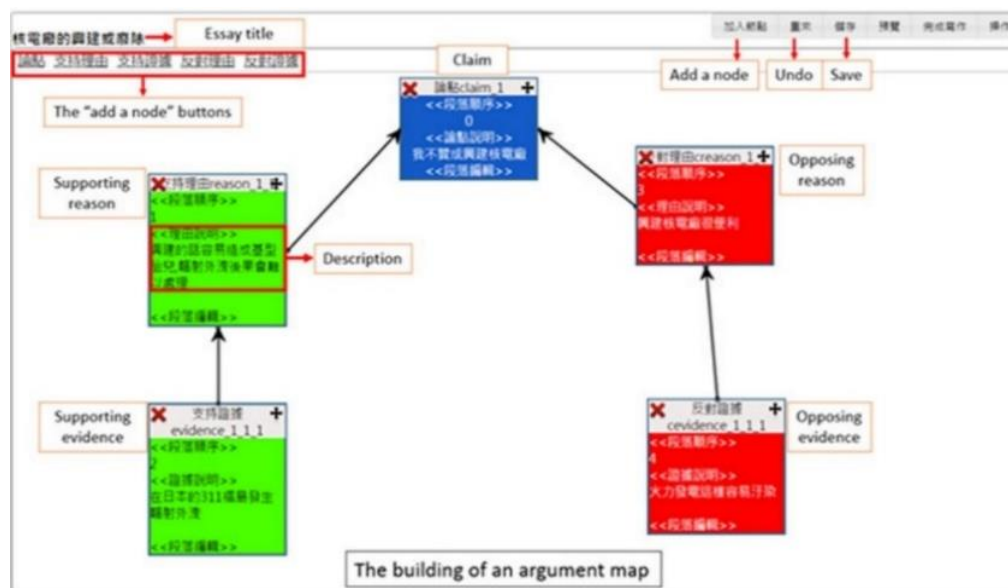


Figure 3. CAEWS

In this study, the construction of graphic organizers to improve students' writing ability for opinion essays is based on Oshima and Hogue's theory of opinion essays (Maharani, 2018); see Figure 3.

Website GO

At the beginning of the 21st century, graphic organizers transformed from using pencil and paper to digital to reduce the use of paper and waste. Digital graphic organizers are easy to make and can include images and photos. They can be colored to make them more attractive and be used online and offline. Several sites or websites deliver graphic organizers' creation and templates (see Table 1).

Tabel 1. Website for Graphic Organizers

Website	Information	Address
Bubbl.us	A website can design Mind Maps	www.bubbl.us
Ibrainstorm	The web provides GO apps for iPad and iPhone	www.ibrainstorm.com
Belvedere	A website gives downloadable GO templates specifically for class 12	www.Belvedere.com
Cacoo	The web has software to design and share mind maps, flowcharts, network diagrams, UML models, and more.	www.cacoo.com
Create	The web provides the GO you designed, which can include images and be colored.	www.creatly.com
Canva	A website delivers GO applications that can be downloaded on the App Store and Google Play, and users can design their own GO on these sites.	www.canva.com
Checkvist	Web supplies application and designs GO	www.checkvist.com
Coggle	A website allocates free mind-mapping applications collaborating with text documents.	www.coggle.com
Conceptboard	A Website for designing and building GO with a digital whiteboard	www.conceptboard.com
Diagramly	A Web site can design flowcharts or other diagrams, and it can be saved and provides software.	www.gigaom.com
Ditchthattextbook	The website has 15 free GO templates; users can create their own Go. Its application can be downloaded from Google Apps.	www.ditchthattextbook.com
Edrawmax	Web administers users to create GO for free and paid	www.edrawmax.com
Innovativeteachingideas	Web distributes GO templates for all subjects that can be used on Google Classroom, Office 365, G-Suite, Dropbox, and other online learning platforms.	www.innovativeteachingideas.com
Erintegration	Web dispenses 25 free digital GOs that can be used on Seesaw, Google Slides, and Pic College	www.erintegration.com
Freelogy graphic organizer	Sites allocate graphic organizer templates tailored to subjects in PDF format	www.freelogy.com
Holt Interactive Graphic Organizer	Web furnishes a variety of GO templates that interact with digital whiteboards.	www.edutoolbox.org
IdeaSketch	Web delivers linear applications and graphical representations as a customizable tool	www.IdeaSketch.com
Inspiration Lite	Web assigns an application to create five mappings using a long and wide template or design your mapping	www.appsinclass.com
Jenniferfindley	A site distributes GO, which students in grades 3-5 use for reading subjects.	www.jenniferfindley.com
Lucidchart	The web has diagrams that can be designed for mind mapping and brainstorming.	www.lucidchart.com
MindMeister	Web offers fillable mappings that can be saved on a site or blog.	www.MindMeister.com
Mindomo	The web proposes GO for brainstorming, and practitioners can flip their classes, leave comments, etc.	www.Mindomo.com
Mind42	Web administers mind mapping software that can be designed.	www.Mind42.com
Mindmup	The web allows free mind mapping.	www.mindmup.com
MURAL	A web designs and organizes flowcharts, diagrams, frameworks, methods, and drawings	www.mural.com

Website	Information	Address
	that can be integrated with Dropbox, Microsoft Teams, Slack, Google Calendar, and other applications.	
Popplet Lite	Web dispenses mind mapping, organizing, and brainstorming applications, which can also be downloaded on the App Store.	www.popplet.com
Read Write Think Graphic Map Tool	A site is designed to identify writing-related topics, book chapters, and events that occurred, and it can be displayed with pictures and explanations.	www.readwritethink.org
Storyboardthat	Education sites and portals where teachers/teaching staff can create timelines, storyboards, and graphic organizers (t-charts, grids, etc.). The lesson plan can be included.	www.storyboardthat.com
Super Teacher Work Sheet	A site offers printable learning materials, graphic organizers, and worksheets for all subjects	www.superteacherworksheets.com
Tech-nology	Sites allow print-only GO templates	www.tech-nology.com
Tech4learning	The website supplies printable GO templates, and users can create GO shapes.	www.tech4learning.com

The description of the web graphic organizers in the table above illustrates that no graphic organizers are equipped with text and questions. In contrast, the function of the text is to provide information and questions as direction to aid students in efficiently developing their ideas in their essays, especially opinion essays.

Web-Based Learning

Information technology has a positive impact in various fields, including education. 21st-century education illustrates the shift from face-to-face in the classroom to distance learning. The Internet and Web create a variety of distance education, known as e-learning. E-learning or web-based learning applies internet technology to deliver learning materials from teachers/lecturers/instructors to students/participants (Puspitasari et al., 2018). E-learning or web-based education involves online learning through teaching, tutorials, and discussions (Astuti et al., 2020; Aziz & Fitrawati, 2023; Rahim et al., 2023; Wosik et al., 2020).

Eight issues must be focused on to develop successful web-based learning. The first issue is about institutions relating to administrative affairs, academic affairs, and student services. Next, E-learning management refers to people, processes, products, management teams, and e-learning. Technology examines infrastructure issues related to e-learning, such as software and hardware. Pedagogy, namely the pedagogical dimension of e-learning, focuses on teaching and learning, discussing issues related to the content, audience, objectives, media, design approach, organization, and learning strategies. Then, ethical issues include e-learning ethics related to social and political influences, cultural diversity, student diversity, digital divide, etiquette, bias, and legal issues. The interface design dimension refers to the interface designs that lead to the overall look and feel of the e-learning program. Interface design includes page and site design, content design, navigation, accessibility, and usability testing. Resource support refers to online resources to encourage meaningful learning. Last, the evaluation

assesses e-learning in the content development process, environment, institutional level, and practitioners (Dahal et al., 2023).

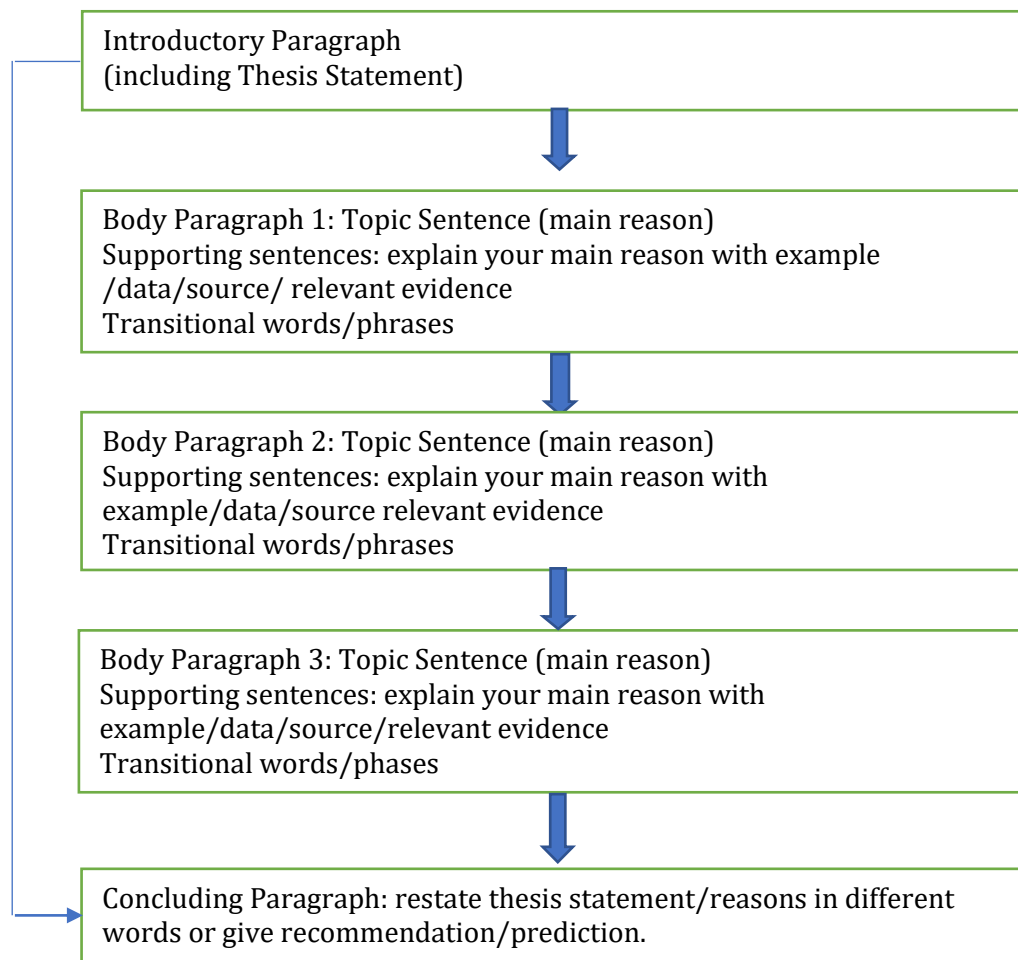


Figure 3. Development of GO for Opinion Essay

Web-Based Learning contributes a comprehensive Virtual Learning Environment (VLE) or Internet-based Training (IBT) for educators and students. IT-based VLE delivers a different experience. There are several advantages and disadvantages of implementing WBL (Astuti et al., 2020). The advantages are: 1) It has the potential to link sources in various formats. 2) WBL can be an efficient way to deliver course material, including distance learning. 3) Resources can be available from any site and at any time. Perpetual resources are easy to update. 4) WBL offers flexible scheduling. 5. It can encourage more independent and active learning and support individual learning. 6) It can present helpful resources and supplementary materials for conventional programs. 7) New learning methods are used both in delivering and implementing material.

The disadvantages are: 1) Access to appropriate computer equipment can be a technical problem for students. 2) Students feel frustrated if they cannot access graphics, pictures, and video because of poor equipment. 3) The necessary infrastructure must be available and affordable. This can lead to additional costs. 4) Information quality and

accuracy may vary, so guidance and direction are needed. If it is not clear, then there is a de-individualized instruction. 5) Poor instructional design can make WBL ineffective

RESEARCH METHOD

Design

This research was categorized as R&D, oriented toward developing and validating products used in educational environments (Gall et al., 2014). This study applied the ADDIE model (Kurt, 2019). This model consists of five stages: (1). Analysis is divided into two parts: Need Assessment and Front-End Analysis. Front-end analysis in research is fragmentized Audience Analysis, Technology Analysis, Task Analysis, and Media Analysis. (2) Design, (3) Development, (4) Implementation, and the last is (5) Evaluation.

Participant

The research subjects were 2 Content experts, 2 Instructional Design experts, 2 Web-based learning experts, 2 English Writing lecturers, and 20 university learners, and the data were taken from them.

Instrument and Data Analysis

The instrument was a 5-point Likert scale in the form of a questionnaire. The close-ended questions for content and instructional design experts and lecturers were adapted from Chaeruman (2015), web-based learning experts from Lukitaningrum (2016), and students from Lewis (1993). The constructs of a questionnaire for content experts: the relevance between material and learning objectives (3), the truth of substance in the text (4), and up-to-date material and use of communicative language text (3). The elements of a questionnaire for instructional design experts: the relevance among learning objectives, texts, and learning media (5) and to encourage students to think critically (1). The concept of a questionnaire for lecturers is that it is easy to use (1), motivates students in learning (2), helps teachers in teaching (1), and helps them think critically (1). The web-based learning expert questionnaires consisted of 3 components such as usability (6), functionality (22), and visual communication (7). Then, the questionnaires for pupils were constructed based on three criteria: satisfaction (2), usability (2), and functionality (3). The data analysis used descriptive statistics to evaluate the product. All scores from each expert and lecturer were summed up and averaged, then converted into a value using Sukardjo's criterion-referenced test (Table 2).

Table 2. Criterion Referenced Test

Classification	Configuration	Computation
Excellent	$X > \bar{X}_i + 1.80 \text{ sdi}$	$X > 4.21$
Very Good	$\bar{X}_i + 0.60 \text{ sdi} < x \leq \bar{X}_i + 1.80 \text{ sdi}$	$3.40 < x \leq 4.21$
Good	$\bar{X}_i + 0.60 \text{ sdi} < x \leq \bar{X}_i + 0.60 \text{ sdi}$	$2.60 < x \leq 3.20$
Average	$\bar{X}_i + 1.80 \text{ sdi} < x \leq \bar{X}_i - 0.60 \text{ sdi}$	$1.79 < x \leq 2.60$
Poor	$X \leq \bar{X}_i - 1.80 \text{ sdi}$	$X \leq 1.79$

RESULTS AND DISCUSSION

Developing GOs as multimedia web-based learning was the first step in the ADDIE model. This phase of analysis was divided into Need Assessment and Front-End Analysis. The Need Assessment was to analyze the actual condition of the teaching-learning process of writing in the English Education Department at UNIMA. The lecturing was still traditional, and the writing instructors used a book and whiteboard. Front-end analysis was fragmented Audience, Technology, Task, and Media Analysis. Audience Analysis: English Education Department students of UNIMA were users who knew how to operate computers, PCs, tablets, and smartphones. The lecturers must comprehend how to manage and operate a computer or PC. Technology Analysis needed in media development included hardware such as computers, portable computers, tablets, and smartphones, while software applied in this web was PHP for language programming, MySQL as primary data, Interface system HTML-CSS, and web server Apache. Media Analysis used in this development was ready-made GOs.

Define

This part aimed to define or analyze issues of teaching writing, such as front-end analysis, learner analysis, task analysis, concept analysis, and learning objectives. The front-end analysis was conducted to analyze the actual condition of the teaching-learning process of writing in the English Education Department at UNIMA. Since COVID-19 spread worldwide, this disease has caused temporary paralysis in the trade, tourism, health, education, and other industrial sectors, so preventive actions are taken, such as wearing a mask, physical distancing, and washing your hands. One of the ways to prevent the spread of the disease is to keep a distance; therefore, four ministers, the Minister of Education and Culture, Religion, Health, and Home Affairs, decided on online learning. Based on it, we designed online learning by taking into account the residences of the students who do not only live in Manado and its surroundings but also live in several areas: Medan, Jakarta, Toraja, Palu, Kendari, Makassar, Gorontalo, Kotamobagu, Bolaangmongondow, Tahuna, Ambon, and Ternate.

Then, we analyzed the teaching-learning process in the English Education Department at Manado State University, where the learning process still used the whiteboard (whiteboard), book, pen, and paper. By the end of the writing course, the test results of the students' essays were still low because they were challenging to make a thesis statement in the topic sentence, and no data, examples, or inappropriate reasons in supporting sentences, which caused the essay to be incoherent and less cohesiveness. Also, the number of students involved in the teaching-learning process was 35 people/class, categorized as a big class because the department has four parallel classes for each course. In Task analysis, we designed some steps for how students could learn about learning material of writing using GO to solve their issues. The concept was that students individually learned elements of opinion writing with suitable material and media through GO without limited space and time to achieve the learning objective of writing the Opinion essay.

Design

Based on the explanation above, we arranged two teams to make WBL: team 1 was in charge of designing online learning, and Team 2 was to create the learning system. As team 1, we were tasked to design the learning system in the form of a flowchart and then develop it into a storyboard, which was the basis for creating an interface system to provide an overview of how students will sign in to the website up to the teaching and learning process and assessment. Then, team 2 developed and implemented the storyboard using software and oversees the WBL system.

We need hardware and software to produce learning technology that runs well and successfully. Where the hardware will be used in this learning is a computer, PC, tablet, or smartphone, and the software that will be applied in this virtual learning to establish the WBL run appropriately is PHP for language programming, MySQL as basis data, Apache as the web server, and the last is HTML-CSS as interface system. We focused on implementing WBL by paying attention to LAN (Local Area Network) to make it easier for learners to attend the teaching-learning process asynchronously and synchronously.

The design phase is planning a multimedia project. In this session, we showed a simple flowchart and discussed how to design the web. We aimed to comprehend the concept of writing an opinion essay using text, questions, and ready-to-use GOs; therefore, we designed some menus. After registering, users enter the dashboard, which displays the user profile, announcement column, and To-Do lists. Then, it contained a primary menu: Learning Objectives, Writing Skills Review, and Assessment. This first menu had sub-menus GIO and SIO explaining what learners would learn from different opinion essays based on questions we completed with examples such as To What Extent, Two Parts Questions, Problem and Solution, and Advantage and Disadvantage. Then, the Writing Skills Review was a page to allocate elements of writing, namely writing mechanics, four types of English Sentences, Writing Opinion Essay, Introductory Paragraph, Body Paragraph, Concluding Paragraph, and Transitional Words and Phrases. When scholars had finished reading these parts, they could go to Assessment as the main "content of the web", which splits into three parts. In thinking, learners should read the given topic but cannot access others' topics randomly. Text, questions, and GO used an interface system so pupils could easily do their assignments. GOs played the primary role of brainstorming and scaffolding, and each box had clues relating to the structure of the opinion essay and how it could be written. Then, in the Answering session, students fill the GOs in and must write an essay. After that, it is sent to their teacher. If the essay had been reviewed and edited by an English writing instructor, the script was sent back to the author. He or she must revise it based on the feedback and then send it again to the lecturer. Without revision, it was time for a writer to publish the essay in the Posting section (see Figures 4, 5, and 6).

Then, the pedagogy dimensions applied to this product were materials adapted to learning objectives and learning strategies. The purpose of learning was that university students could write opinion essays, so they were given examples of opinion essays accompanied by material to deliver accuracy and fluency in writing essays. The provided material was grammar, four academic English sentences, opinion essay structures,

transition words, and punctuation marks corresponding to Krashen's theory (Krashen, 1982). To overcome the problem of teaching, we selected GO rolled as an instructional design as well as a learning strategy (Ponce et al., 2014). Afterward, we developed the form of GO that was matched with texts and questions. The text acted as information, and the question served as a direction to help students develop ideas in opinion essays. This organized layered tool was built according to an opinion essay structure where each box was given clues to guide learners to create cohesive and coherent essays.

For students to write essays well, we provided learning resources that acted as learning materials on YouTube and learning with YouTube as multimedia helps students focus more on the target language (L2) and improves writing accuracy (Alobaid, 2021).

In dimension Interface design, we designed a website address that is easy to remember and can be accessed with students' available digital tools. When logging into the dashboard, this section displays the main menus: Learning Objective, Writing Skills Review, and Assessment; when each is clicked, the sub-menus can perform the display quickly. The overall appearance of the menus and sub-menus are by the interface system to make it easier for students to interact with learning materials according to their needs (Wang and Yang, 2005) and help students do their assignments easily (Mochizuki et al., 2019).

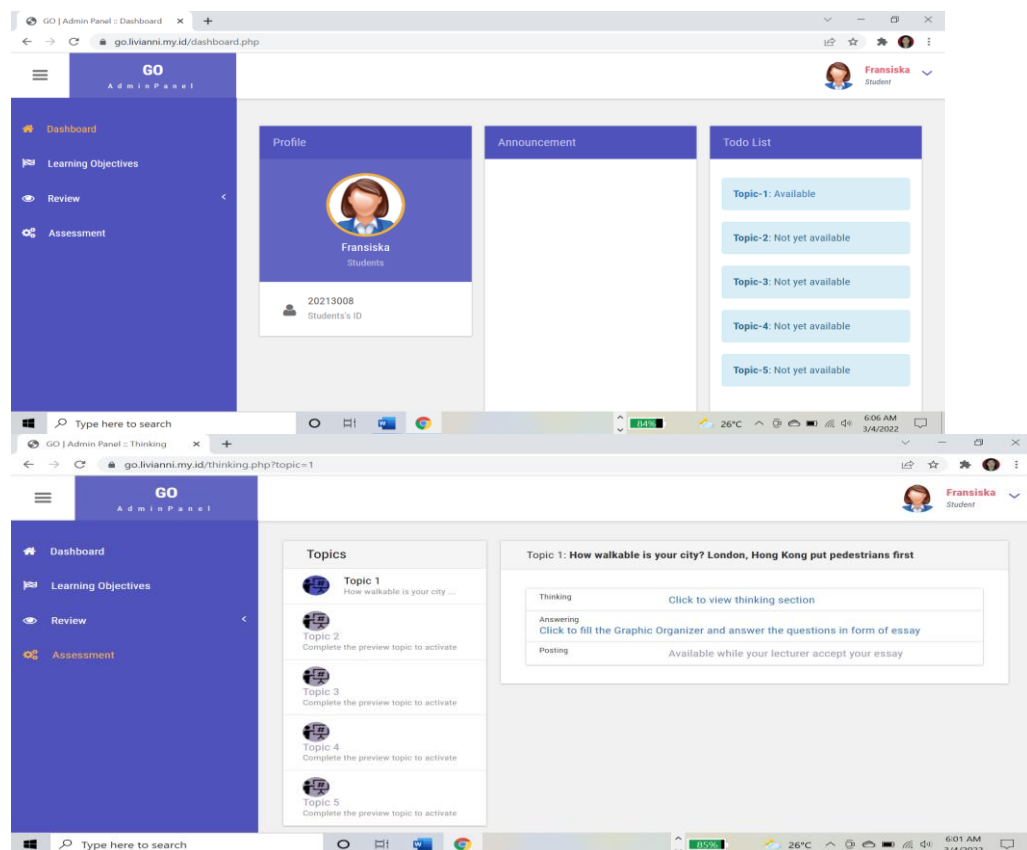


Figure 4. Design of web-based learning

Development

In this stage, some experts, such as content, instructional design, and web-based learning experts, would validate the product as evaluators and must answer the questionnaire. Materials/content experts have the following academic backgrounds: Minimum master's education in teaching English, especially academic writing, and experience in the field for at least five years. Learning media experts have a master's degree in learning design and have been in the profession for at least five years, while WBL experts have undergone master's education in Educational Technology and a minimum of 5 years in that field.

There were ten questions delivered to content evaluators: Appropriateness with Learning Objectives; Alignment with student achievements; Information easily understood by students; The use of the example is correct; it is reliable references; The truth of substance in reading; Clarity in providing information; Up-to-date material; Grammar according to English rules: communicative language use in the text. The total score of each validator was 4.5 and 4.4, so the mean score was 4.45. The result showed that the texts' content was easily comprehended because the information was clear and up to date, and the language was simple.

Then, the instructional design experts had six questions, namely: Learning objectives are explained clearly; Learning objectives according to student achievement; There is relevance between objectives and material; There is relevance between the use of media and material; Material in learning media is easy to follow; The given topic can encourage students to think critically. Both scored 4.5 and 4.5, so the mean score was 4.5. It meant that the learning objectives, material, and media connected, so we assumed pupils could study individually.

The following expert to score the questionnaire was web-based learning whereas it administered 35 questions: Main menus on the website are easy to understand; The inscription on the menu is easily read and comprehended; The selected menu can appear quickly; the results are displayed quickly; Website accessed easily; It is easy to remember website address; The sign-in menu works properly; The log in menu operates well; The log out menu perform perfectly; The Learning Objectives menu serves correctly; The General Instructional Objective sub menu acts excellently; The Specific Instructional Objective sub menu runs appropriately; The Example sub menu functions correctly; The review menu acts well; Sub menu of Writing Mechanic, Grammar and Punctuation functions correctly; Sub Menu of Writing 4 Types of English Sentences perform properly; Sub menu of The Conjunction administers in good condition; Sub menu of The Writing Opinion Essay controls perfectly; The sub menu of the Writing Introductory paragraph manage excellently; Sub menu of The Writing Body paragraph is good; Sub menu of The Writing Conclusion paragraph acts rightly; sub menu of The Transitional Words and Phrases functions justly; The Assessment menu is reasonable control; sub menu of The Thinking and Answering can operate; Interface System is able to act; ready-to-use GO can be typed some words and removed if some words missed type; The essay box can be typed and can be deleted if there are errors; Posting session works well; The use of language on the media is correct; Text on media is easy to read;

Media design is easy to understand and straightforward; The selection of colors is generally good; The appearance of Ready Made Go is simple and understand easily; The layouts of menu and sub menu is good; The Web layouts has been consistent. Each validator contributed 4.6 and 4.7; therefore, the average value obtained was 4.63. The result was excellent because all the web's primary and sub-menus worked adequately. This learning motivated scholars to improve their opinion essay writing without being limited by time and space.

Disseminate

The goal of the last phase was to share or launch the product with educators and scholars to get their responses or feedback. The lecturers already have a master's degree, have practiced teaching English academic writing courses for at least five years at the university level, and are skilled in using laptops in the teaching and learning process. Here, we distributed the product to English writing lecturers and scholars in the English Education Department of UNIMA. Then, we delivered a questionnaire to 2 English writing lectures and 20 students of the English Education Department of UNIMA.

After the people with a high level of knowledge assessed the product, English writing teachers as practitioners took a turn to evaluate it. It offers five items of questions: Materials and media are straightforward to understand; To increase student interest and motivation in learning; It can be used for individual study without being limited by space and time; It helps teachers in the teaching and learning process inside and outside the classroom; The topics can encourage students to think critically. The two lectures scored 4.7 and 4.7 for this product, so the average was 4.7. This web-based learning management system assisted the teacher in teaching writing opinions asynchronously and guided the students on writing the essay coherently and cohesively. Based on the points given by evaluators and lectures: 4.45, 4.5, 4.63, and 4.7, it could be concluded that the mean score was 4.57 and the criteria were Excellent.

Furthermore, we applied the questions to 22 students: I am satisfied with the use of the website; The way of how to use the website is straightforward; I can study anytime; The information on this website is evident and easy to understand; Easily to find the information I need; The menu layout on the monitor is obvious; Readymade GO and questions aid me in writing essay coherently and cohesively; The system interface makes it easier for me to do tasks; This website provides the functionality and capabilities I need; Overall, I am satisfied with the website's performance. The given scores were 4.8 as excellent. This meant that Go, as a development in web-based learning, could improve students' ability to write opinion essays. Based on the points given by evaluators and users: 4.45, 4.5, 4.63, 4.7, and 4.8, it could be concluded that the mean score was 4.616 and the criteria were excellent.

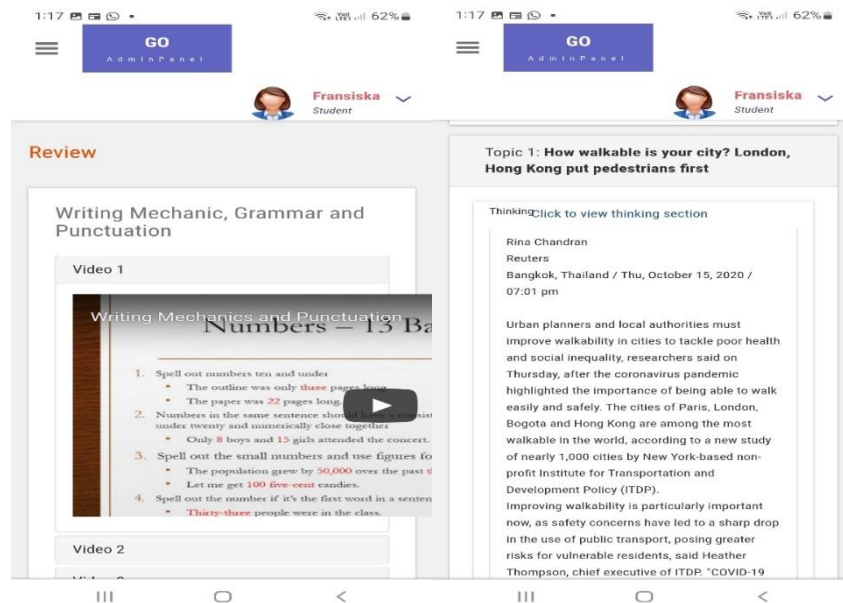


Figure 5. Writing Material

Moreover, some articles discussed the benefits of web-based learning. Ghoniemy et al. (2010) mentioned that an excellent web-based learning system for English courses consisted of system data-based learning, objectives learning design, website design, and course design. The platform should be simple and learner-oriented, supporting multimedia and existing teaching material/lessons. Linear with this statement, Bradley (2021) uncovered that web-based learning management systems should be supported by technological resources connected to competent curriculum and engaging learning circumstances. Therefore, students can overcome their preferences, eagerness, and motivation in online learning. In addition, Edmunds & Hartnett (2014) declared that this learning method could connect personalized learning, a web-based learning management system, and the teaching-learning process in the virtual classroom. Lyashenko & Malinina (2015) found that implementing web-based technology for teaching a foreign language in university had macro and micro levels. The macro level was an effective platform for teachers to solve students' issues in learning a foreign language, and the lectures played a primary role in integrating the WBL at the university level. The micro level was a scaffolding platform with which to cooperate. Teachers created a more individualized teaching-learning atmosphere at the micro level, making their students feel self-assured and comfortable. Al-khresheh (2022), in his research, said that the WBL aided in enhancing the teaching-learning process between teachers and students. It had positive values in planning, outlining, preparing, delivering, and assessing English lessons.

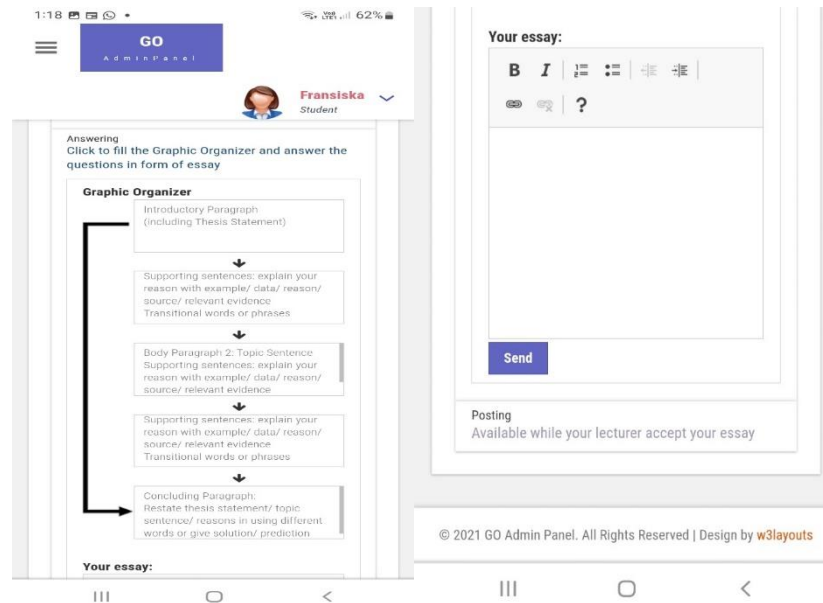


Figure 6. Development GO in WBL

CONCLUSIONS

Developing the graphic layers as ready-to-use to apply in web-based learning has taken four steps. Firstly, the Define session digs the gap between the actual and expected conditions of learning, students' cognitive skills, and learning objectives. Then, design is used to plan what learning project is suitable for solving the issue. This step should concern the pedagogical scope or teaching-learning process, the interface system of the product, and resources concerning students' characteristics. Thirdly, the development session is the design phase component, in which experts must validate the product before distributing it to teachers and students. Last but not least, the dissemination phase is distributing the product to determine whether the online learning system and the design instructional work or not. Based on the results of validators and practitioners, the product in e-learning can work properly, especially the ready-made graphic device that aids students in writing well-written opinion essays.

Some implications can be highlighted through this study. First, this research delivers knowledgeable information on developing and validating a new product in an educational environment. Second, this product can be an efficient way to deliver course writing material. Third, students can quickly write their opinion essays based on the design of Graphic organizers. Last but not least, this virtual education product is appropriate for learners to study at their homes during pandemic covid 19 and to teach them how to manage their own time to study because this product offers flexible scheduling.

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