THE MODALITY PRINCIPLE OF TIKTOK TO FACILITATE

STUDENTS' WRITING ABILITY

THESIS

Submitted in partial fulfillment of the requirement for the degree of Sarjana
Pendidikan (S.Pd) in Teaching English

UIN SUNAN AMPEL
S U R A B A Y A

Created By:

Name   : Riza Rifia

Nim   : D05219022

ENGLISH LANGUAGE EDUCATION DEPARTMENT

FACULTY OF TARBIYAH AND TEACHERS TRAINING

UIN SUNAN AMPEL

SURABAYA

2023

SURAT PERNYATAAN KEASLIAN TULISAN

Yang bertanda tangan dibawah ini:

Nama : Riza Rifia

NIM : D05219022

Jurusan/ Program Studi : Pendidikan Bahasa Inggris

Fakultas : Tarbiyah dan Keguruan

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Surabaya, 11 Juli 2023

Pembuat pernyataan,

Riza Rifia

NIM. D05219022

ADVISOR APPROVAL SHEET

This thesis by Riza Rifia *"The Modality Principle of TikTok to Facilitate Students' Writing Ability"*, and this thesis approved by the thesis advisor for further approval by the Boards of Examiners.
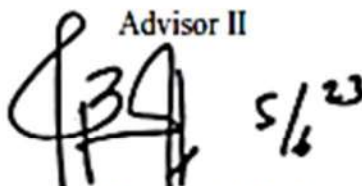
Surabaya, 05 Juni 2023

Advisor I

Fitriah, Ph.D.

NIP. 197610042009122001

Advisor II

Rakhmawati, M.Pd.

NIP. 197803172009122002

EXAMINER APPROVAL SHEET

This thesis by Riza Rifia entitled *"The Modality Principle of TikTok to Facilitate Students' Writing Ability"* has been examined on Thursday, 6th July 2023 and approved by the boards of examiner.

Dean of Tarbiyah and Teacher Training Faculty,

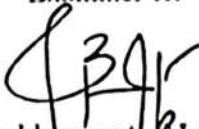**Prof. Dr. H. Muhammad Thohir, S.Ag. M.Pd**
NIP. 197407251998031001

Examiner I

Drs. Muhtarom, M.Ed, Gred. Dip.Tesol
NIP. 196512201992031005

Examiner II

Prof. Dr. M. Salik, M. Ag
NIP.196712121994031002

Examiner III

Rakhmawati, M.Pd
NIP. 197803173009122002

Examiner IV

Fitriah, PhD
NIP. 197610042009122001

LEMBAR PERNYATAAN PERSETUJUAN PUBLIKASI KARYA ILMIAH

UNTUK KEPENTINGAN AKADEMIS

Sebagai sivitas akademika UIN Sunan Ampel Surabaya, yang bertanda tangan di bawah ini, saya:

Nama : Riza Rifia

NIM : D05219022

Fakultas/Jurusan : Tarbiyah dan Keguruan/Pendidikan Agama Islam

E-mail address : rizarifia17@gmail.com

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ABSTRACT

Rifia, Riza (2023). *The Modality Principle of TikTok to Facilitate Students' Writing Ability*. A thesis. English Education Department, Faculty of Education and Teacher Training, State Islamic University of Sunan Ampel Surabaya. Advisors: Fitriah, Ph. D. and Rahmawati, M. Pd

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As the advancement of technology, teachers are encouraged to use the technology in the teaching and learning process to make the educational process more meaningful and enjoyable. To achieve the goal, teachers should know how to use the technology effectively and select appropriate technology for their classes. This study aims to investigate whether the modality principle of TikTok helps facilitate students' writing ability and identify the difference in the students' scores between students who taught using TikTok video and without TikTok video. To achieve the purposes, this study used a quasi experimental design and applied the TikTok video to the experimental group. For the control group, the teacher taught regular videos. The result revealed that TikTok which applied the modality principle could facilitate students in writing since it provided animation and text with simultaneous narration. Another finding revealed that there was a significant difference in the students' score in the experimental group and control group. The students' scores in the experimental group were higher than students in the control group. It means that TikTok helped to facilitate the students' writing ability. The finding highlights that the use of TikTok may be beneficial for teaching English and help students to write better as TikTok provides useful features.

ABSTRAK

Rifia, Riza (2023). *The Modality Principle of TikTok to Facilitate Students' Writing Ability.* A thesis. English Education Department, Faculty of Education and Teacher Training, State Islamic University of Sunan Ampel Surabaya. Advisors: Fitriah, Ph. D. and Rahmawati, M. Pd

Kata Kunci: *Prinsip Modalitas, Multimedia Pembelajaran, TikTok, Kemampuan Menulis*

Seiring kemajuan teknologi, guru didorong untuk menggunakan teknologi dalam proses belajar mengajar agar proses pendidikan lebih bermakna dan menyenangkan. Untuk mencapai tujuan tersebut, guru harus mengetahui bagaimana menggunakan teknologi secara efektif dan memilih teknologi yang tepat untuk kelas mereka. Penelitian ini bertujuan untuk menyelidiki apakah prinsip modalitas TikTok membantu memfasilitasi kemampuan menulis siswa dan mengidentifikasi perbedaan nilai siswa antara siswa yang diajar menggunakan video TikTok dan tanpa video TikTok. Untuk mencapai tujuan tersebut, penelitian ini menggunakan desain eksperimen semu dan menerapkan video TikTok pada kelompok eksperimen. Untuk kelompok kontrol, guru mengajarkan video biasa. Hasil penelitian menunjukkan bahwa TikTok yang menerapkan prinsip modalitas dapat memfasilitasi siswa dalam menulis karena menyediakan animasi dan teks dengan narasi secara bersamaan. Temuan lain mengungkapkan bahwa terdapat perbedaan yang signifikan pada nilai siswa pada kelompok eksperimen dan kelompok kontrol. Nilai siswa pada kelompok eksperimen lebih tinggi daripada siswa pada kelompok kontrol. Artinya, TikTok membantu memfasilitasi kemampuan menulis siswa. Temuan ini menyoroti bahwa penggunaan TikTok mungkin bermanfaat untuk mengajar bahasa Inggris dan membantu siswa menulis lebih baik karena TikTok menyediakan fitur yang berguna.

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LIST OF ABBREVIATION

ELT = English Learning and Teaching

ICT = Information and Communication Technology

TP = Text-picture Present

TA = Text-picture Absent

NP = Narration-picture Present

NA = Narration-picture Absent

AN = Animation and Narration

AT = Animation and Text

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CHAPTER I

INTRODUCTION

The researcher discusses the theories that relate to how the modality principle of TikTok facilitate students' writing ability. In this chapter is organized into several subheadings, including: (1) the research background, (2) the research question, (3) the objective of the study, (4) the hypothesis, (5) the significance of the study, (6) the scope and limitation, and (7) the definition of key term.

A. Research Background

Recently, sophisticated technology created to ease human life has grown quickly. One of the evidence of technology development is existing social media. In this digital era, most people are social media users. According to Gupta and Bashir, one of social media functions is for the academic aspect.[1] In addition, there are various learning ways that can be done to enhance the educational process such as implementing social media as an online platform in the learning process. According to Black using online interaction platforms in learning a language can gather distinctive elements of students' cultural, linguistic, and social identities and encourage them to turn away from form and

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[1] Savita Gupta and Liyaqat Bashir, "*Social Networking Usage Questionnaire: Development and Validation in an Indian Higher Education Context*," Turkish Online Journal of Distance Education 19, no. 4 (2018): 214–227.

structure and toward meaning and function.[2] One of the possible social media platforms that may be used for education purposes is Tik Tok.

TikTok is one of the online platforms that is very useful to be applied in the educational process. TikTok is a mobile application that enables users to make as many creative short videos as they like. TikTok can be used through a mobile device such as a smartphone. Thus, TikTok can function as an e-learning application, because it can be organized anytime and anywhere for learning purposes. Furthermore, TikTok can be categorized as visual-based teaching and learning material which allows students to look at situations and phenomena that are not provided in the textbooks.[3] Therefore, TikTok is capable of being applied as a tool to enhance English learning and teaching since TikTok can provide videos which involve animation and narration that are not provided in the textbook.

Based on the statistical data of TikTok users which was taken in October 2022, Indonesia is the 3rd biggest TikTok user in the world after the United States and Brazil.[4.] Most people like TikTok videos because the videos provided on TikTok are very interesting and entertain them. Therefore, TikTok may be useful to reduce students' boredom if used in teaching and learning.

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[2] Rebecca W Black, "*Online Fan Fiction, Global Identities, and Imagination*," Research in the Teaching of English, no. 4 (2009): 397–425, accessed April 9, 2022, http://www.jstor.org/stable/27784341.

[3] A Andujar, *Recent Tools for Computer- and Mobile-Assisted Foreign Language Learning* (United States: IGI Global, 2020), https://books.google.co.id/books?id=asexDwAAQBAJ.

[4] https://www.statista.com/statistics/1299807/number-of-monthly-unique-tiktok-users/

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However, the benefit of TikTok is not only for pleasure, but also it can encourage the learning and teaching process using multimedia and social networks.[5] Hence, TikTok is a popular mobile application which gives many advantages for students such as for entertainment and for encouraging educational process especially in English learning.

TikTok usage for educational purposes needs to be in line with the multimedia principles. This is because multimedia learning believes that students can more deeply comprehend when the explanations are presented in the form of animation and text rather than text alone without animation.[6] Furthermore, one of the multimedia learning cognitive principles is the modality principle. The modality principle is that texts should be presented in the form of auditory narration rather than visually as on-screen text.[7] Therefore, the application of the modality principle in the learning process is extremely useful to make meaningful learning. Mayer and Moreno stated that meaningful learning is a deep comprehension of the material that involves attending to the crucial aspects offered, organizing it into a cohesive cognitive framework, and connecting it with appropriate prior knowledge.[8] Meaningful learning is

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[5] Kamini Karthigesu et al., "*TikTok ActiV as a Tool in Enhancing ESL Writing Skill*," Innovation for Sustainable Growth (2021): 209–212.

[6] Richard E Mayer, "*Multimedia Learning*" (2002): 86.

[7] Richard E. Mayer and Roxana Moreno, "*Cognitive Principles of Multimedia Learning: The Role of Modality and Contiguity*," Journal of Educational Psychology, no. 2 (1999): 358–368.

[8] Richard E. Mayer and Moreno Roxana, "Nine Ways to Reduce Cognitive Load in Multimedia Learning," *Educational Psychologist* (2003): 43–52

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important for all education processes including English Language Teaching (ELT).

In ELT, there are a number of abilities that students need to learn, one of the important English abilities is writing ability. Writing is a technique for conveying one's feelings that emphasizes the capability of the writer to present their original opinions on a subject.[9] It indicates that writing is the strategy of people to express their thoughts on a particular subject. Mastery in writing skill gives many advantages to students as well. For example, the students learn about writing skill from low to high, from basic to advanced, indirectly the students have learned about grammar, vocabulary, etc. to encourage their writing skill. However, writing is not as easy as people think. According to Richard and Renandya, the mastery of writing is the most challenging ability for students who are learning a second language (L2) because the process of writing skill is extremely complex.[10]

Moreover, Harmer stated that using music and images are really beneficial to stimulate writing and speaking abilities.[11] Hence, TikTok videos can be applied to assist students in improving their writing ability. TikTok is an audio-visual-based learning that can assist students in understanding the materials easily because TikTok allows students not only to view the images

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[9] Ken Hyland, *Second Language Writing* (Cambridge: Cambridge University Press, 2004).

[10] J C Richards and W A Renandya, "*Methodology in Language Teaching: An Anthology of Current Practice*", (Cambridge University Press, 2002), https://books.google.co.id/books?id=VxnGXusQlI8C.

[11] Jeremy Harmer, "*How to Teach English*", (Pearson Education Limited, 2007).

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but also the texts that appear with the images and listen to the audio narration simultaneously. It is in line with one of the multimedia principles proposed by Mayer, namely modality principle. He stated that students can achieve a deep understanding when explanations are presented in the form of animations and texts are presented auditorily rather than animation and texts are presented on screen.[12] Therefore, in this study the researcher attempts to apply multimedia learning principle which is focused on the modality principle of TikTok as a medium to English writing ability.

Moreover, according to Nguyen Thanh, writing is a complicated metacognitive interest.[13] And based on Hyland, writing is the most crucial ability to be mastered.[14] Therefore, the researcher decides to select writing as one of the English abilities that is crucial to be improved using an online platform namely TikTok. There have been several previous researches on implementing TikTok to learn English writing, some studies focused on finding out students' perception toward the application of TikTok as a medium to teach some English texts such as procedure and descriptive texts, then a study tried to overcoming students in producing the accurate sentence using TikTok which was focused on action verb, and there is a study developed TikTok video to teach students in writing hortatory exposition text.

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[12] Richard E Mayer, "*Multimedia Learning*" (2002): 85–139.

[13] Nguyen Thanh Huy, "*Problems Affecting Learning Writing Skill of Grade 11 at Thong Linh High School*," Asian Journal of Educational Research Vol 3, No. 2 (2015).

[14] Ken Hyland, "*Second Language Writing",* (Cambridge: Cambridge University Press, 2004).

In a research regarding students' perceptions of using TikTok to learn how to write descriptive texts, Syaifuddin et al found that students have positive opinions of the app.[15] It was aligned with a research conducted by Salsabil, the research revealed that students' perceptions regarding using TikTok to learn writing procedure text are favorable.[16] Those studies focused on finding out the students' perceptions toward the application of TikTok in writing descriptive and procedure texts.

Then, a study conducted by Kamini Karthigesu et al. which focused on overcoming Malaysian students' difficulties in producing accurate sentences in their written tests by applying TikTok video to teach action verbs as the writing accuracy aspect. The result showed that by using TikTok students are highly motivated in learning English and applying Tiktok in learning action verbs also can improve their writing skill.[17] This study focused on improving students' writing ability by teaching action verbs on TikTok.

Furthermore, the study conducted by Fachri which focused on developing TikTok videos in teaching writing hortatory exposition text for students who took writing for personal context class. The result showed that the

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[15]Syaifuddin. Nabilah. et Al., *"Students' Perception toward the Use of TikTok Video in Learning Writing Descriptive Text at MAN 1 Gresik*'' Journal of Research on English and Language Learning (J-REaLL) Vol. 2, No.1 (2021): 16–21.

[16] Putri Syahla Salsabila, "Students' Perception Toward The Use of TikTok Video in Learning Writing Procedure Text at Senior High School 2 Rambah Hilir" (2022): 1–62,

[17]Kamini Karthigesu et al., *"TikTok ActiV as a Tool in Enhancing ESL Writing Skill,"* Innovation for Sustainable Growth (2021): 209–212.

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TikTok videos were effective to teach composition of hortatory exposition texts.[18] This research concentrated on the development of TikTok videos to teach composition of hortatory exposition texts.

The study about applying TikTok in learning writing skill is still limited, and from those previous studies there is no focus on the multimedia principle, especially the modality principle that applied in TikTok. Hence, in this study the researcher attempts to investigate how a modality principle that applied on the TikTok helps students in enhancing their writing ability.

TikTok as a Multimedia learning which allows students to view the animations and texts. In addition, TikTok allows the users to insert audio recorders or music; thus, students can view the animation and text with audio narration simultaneously. Therefore, it can be useful in facilitating students' English writing ability.

This study was conducted at UPT SMPN 9 Gresik because according to the researcher's observation in that school, most students have low English writing ability. In addition, they still struggle to elaborate the ideas for English writing. In this case, this study raises the application of the modality principle of TikTok to facilitate students' writing ability. This study is hoped to facilitate students in enhancing their English writing ability. Furthermore, the sample of writing that is taken in this study is writing a narrative text which based on the

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[18] Fachri Ichsan, "*Developing Educative Tik Tok Content as Writing Teaching Media of Hortatory Exposition Text*" (2021): 419–428.

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basic competencies narrative text is the material in 9th grade. In addition, the researcher decides to utilize TikTok as a medium to aid students in enhancing their English writing ability since the research of TikTok for English writing is still limited and based on the researcher investigation at that school, most students are Tiktok users and they like TikTok more than other applications to view videos; however, they use TikTok just for entertainment and pleasure. Therefore, through this study it is expected that it can introduce TikTok as a multimedia learning which can be applied not just for entertainment and for pleasure, but also it can be applied for academic purposes particularly in the English learning process as a medium to facilitate students for improving their writing ability. Moreover, the purpose of this study is to find out how the modality principle is applied on the TikTok and to measure whether there exists a statistically significant difference in the scores between students who were taught using the TikTok video which applied the modality principle and students who were taught using the video which applied animation and text only without any narration.

B. **Research Question**

This study is conducted with the following questions:

1. In what way does the modality principle of TikTok facilitate students' English writing ability?

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2. Are there any significant differences on the students' writing ability between students who use the modality principle of TikTok and students who use videos which involve animation and text only?

C. Research Objective

Based on the research questions formulated above, the objectives of this study are:

1. to investigate the way the modality principle of TikTok facilitates students' English writing ability.

2. to measure any significant difference in the writing ability between students who use the modality principle of TikTok and students who use videos which involve animation and text.

D. Hypothesis

Donald Ary et al stated that hypothesis is formulated to predict the research outcome.[19] Therefore, the hypothesis is formulated in this study to predict the outcome of the research question above.

Ha: There was a significant difference between students who apply the modality principle of TikTok and students who apply the videos which involve animation and text to facilitate them in improving their English writing ability.

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[19] Donald Ary, Lucy Cheser Jacobs, and Chris Sorensen, *Introduction to Research in Education*, 8th edition. (USA: Wadsworth, Cengage Learning, 2010).

H0: There was no significant difference between students who apply the modality principle of TikTok and students who apply the videos which involve animation and text to facilitate them in improving their English writing ability.

E. **Significance of The Study**

The results of this research are expected to offer the advantagement for teachers, students, readers, and future researchers; it will be a reference for all sides in the learning and teaching process.

1. **For Teachers**

The researcher expects that this study gives a reference that TikTok is a kind of multimedia learning that is useful for the teachers to facilitate students in improving their English writing ability.

2. **For Students**

This study expects that it can encourage students to learn English and motivate them that English is not difficult as they think. Moreover, the researcher hopes that through this study the students can use TikTok not just for pleasure but also as a multimedia learning tool for assisting them in improving their English writing ability.

3. **For Readers**

This study expects that this study will provide readers with more detailed information regarding TikTok's advantages as a multimedia learning tool for assisting students in developing their English writing skills.

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4. **For researchers**

The researcher is expecting that the results of the research may offer a piece of evidence that TikTok is a multimedia learning that can be applied in facilitating students' English writing ability, then the researchers can utilize this research as a reference in their study.

F. **Scope and Limitation of The Study**

The scope of this research concentrates on investigating how a modality principle is applied in TikTok to facilitate students' writing ability and whether any significant differences in test scores between students who were taught using TikTok videos with the modality principle and students who were taught using video animation without any narration. The sample of writing in this study is narrative text as it is the basic competence for the students in the 9th grade.

The limitation of this study is this study just concentrated on investigating one of the multimedia principles namely the modality principle which applied in the TikTok to facilitate students' writing ability and the significant differences in the scores between students who were taught using TikTok videos with the modality principle and students who were taught using video animation without any narration. Furthermore, this study is just focused on the writing ability and does not present about the process of writing such as planning, drafting, evaluating, etc.

G. **Definition of Key Term**

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These are the key terms which appear frequently in this research. For preventing misunderstandings when reading this study, the researcher provides concise definitions of the essential terminology as described below.

1. **Modality Principle**

   Modality principle is one of cognitive multimedia learning principles in which texts should be presented in the form of the animation and narration rather than animation and words are printed on screen text.[20] In the other word, modality principle is when texts are presented auditorily rather than visually on-screen text. In this study, the modality principle is one of multimedia principles that is applied on the TikTok which allows the students to view and listen to the animation and narration simultaneously.

2. **Tiktok**

   Tiktok is the latest social media network owned by a Chinese tech giant Bytedance which allows users to make and distribute short videos with lip-syncing that can involve lip-syncing, sketch comedy, dancing, and jokes.[21] Tiktok provides various editing features such as adding music, voice over, pictures, etc. So that TikTok allows the users to view the interesting videos created by some creative content creators.

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[20] Richard E Mayer, "Multimedia Learning" (2002): 85–139.

[21] F Blaikie, "*Visual and Cultural Identity Constructs of Global Youth and Young Adults*", (New York: Routledge, 2021), https://books.google.co.id/books?id=YUEpEAAAQBAJ.

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In this study TikTok refers to a mobile application which provides some interesting videos that involve a modality principle which can be useful as a media to facilitate students' English writing ability.

3. **Writing**

According to Marrianne C. Murcia writing refers to an ability to articulate individual ideas in a second or foreign language through the medium of written communication.[22] Writing serves as an action to assist students to clarify and communicate their thoughts.[23] From those definitions can be summed up that writing refers to the process of conveying human ideas and concepts through written text.

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[22] Marianne Celce Murcia, *"Teaching English as a Second or Foreign Language"*, 3rd Edition (Heinle, 2001).

[23] H S Atkins and L Carver, *Writing Is Thinking: Strategies for All Content Areas* (London: Rowman & Littlefield, 2022), https://books.google.co.id/books?id=n3ZKEAAAQBAJ.

CHAPTER II

REVIEW OF RELATED LITERATURE

The second chapter presents an explanation from related literature which supports the study of the modality principle of TikTok to facilitate students' writing ability as well as an explanation of previous research.

A. **Theoretical Framework**

1. **Modality Principle**

According to the dual coding theory that was assumed by Pavio the human information process contains two separate channels: verbal and nonverbal (visual) channels. He stated that Human cognition is distinctive, it has evolved to be adapted for coping with language and nonverbal objects and events at the same time.[24] Furthermore, each channel has a restricted amount capacity, just a restricted amount of cognitive processing can take place in a verbal channel at once, and just a certain amount of cognitive processing can take place in a visual channel at once.[25] Therefore ,a possible problem that occurs when the processing demands imposed by the learning activity exceed the

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[24] Alan Pavio, "*Mental Representation: A Dual Coding Approach*", Series 9th. (New York: Oxford University Press, 1986).

[25] Alan D. Baddeley, "*Essentials of Human Memory*", (British: Psychology Press Ltd, 1999).

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processing capabilities of the cognitive system, this condition is called cognitive overload.[26]

Modality principal beliefs that texts are better to be presented auditorily rather than visually on the screen. Modality effects are associated with the firm finding that memory performance varies from item to item. It is presented auditorily as compared with visually. The auditory presentation will be more powerful achieving timeliness in immediate memory.[27] It is in line with Mayer that the animation and text presented with narration are better to obtain deep learning rather than the animation that presented visually on-screen text. It can occur because when animation is presented visually on-screen text, both animation and text come into students' cognitive systems through their eyes, so that it raises visual working memory. Thus, animation that is presented on screen enables students to acquire overload in the visual channel since both animations and texts compete for space in the visual working memory.[28] The following picture is adopted from Mayer's multimedia learning book which conveys the cognitive process of animation that is presented visually on-screen text.

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[26] Richard E. Mayer and Moreno Roxana, "Nine Ways to Reduce Cognitive Load in Multimedia Learning," *Educational Psychologist* (2003): 43–52.

[27] Jesse K Pazdera and Michael J Kahana, "*Modality Effects in Free Recall: A Retrieved-Context Account*," Journal of Experimental Psychology: Learning, Memory, and Cognition (2022).

[28] Richard E Mayer, "Multimedia Learning" (2002): 85–139.

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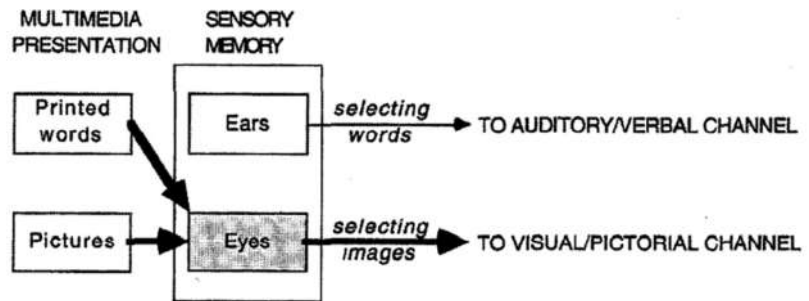
Figure 2.1 The cognitive process of animation text

Meanwhile, when the animation and text is presented auditorily, the animation comes into students' cognitive system through their eyes and it raises visual working memory, while the narration comes into students' cognitive system through their ears and it raises auditory working memory. Hence, in the narrated animation presentation, the information can be off loaded from visual to verbal channel.[29] The following picture is adopted from Mayer's multimedia learning book which conveys the cognitive process of animation and text are presented auditorily.

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[29] Ibid.

MULTIMEDIA   SENSORY
PRESENTATION   MEMORY

Spoken
words   →   Ears   selecting   TO AUDITORY/VERBAL CHANNEL
                            words

Pictures   →   Eyes   selecting   TO VISUAL/PICTORIAL CHANNEL
                            images
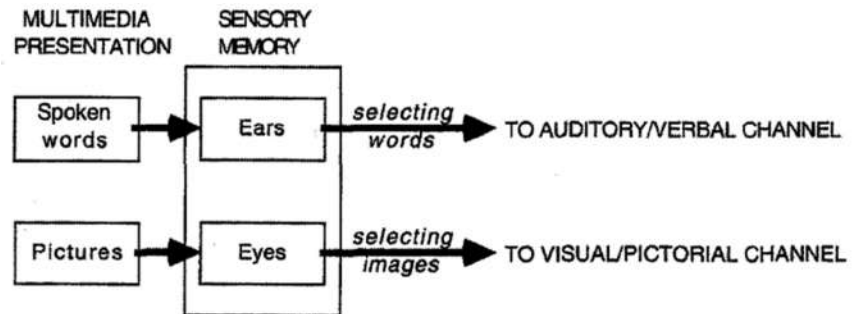
Figure 2.2 The cognitive process of animated narration presentation

According to Mayer and Moreno (1999) when animation and text are presented visually on screen enables students to get cognitive overload because when students focus on viewing animation, the online text will be missed, and when they focus on the online text, the crucial animation will be missed; as a result, their potential inability to store equivalent visual and verbal information in working memory simultaneously;[30] Consequently, their eyes obtain a lot of concurring information while the visual channel has limited capacity. To overcome this case animation and text can be presented auditorily to reduce students' cognitive overload; as a result, they can focus on the animation through their eyes and they can listen to the explanation through their ears simultaneously. In this case, figure 2.2 illustrates by showing an

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[30] Roxana Moreno and Richard E. Mayer, "*Visual Presentations in Multimedia Learning: Conditions That Overload Visual Working Memory*" (1999): 793–800.

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arrow from spoken words to ears as the verbal channel for the narration and an arrow from pictures to eyes as the visual channel for the animation.[31] Mayer (2002) stated that when animation and text are presented auditorily with narration or speech rather than presented visually on-screen text, it allows more cognitive load capacity; consequently, students can achieve deeper learning.[32] Thus, to obtain meaningful learning, it is very helpful to apply the modality principle to the learning process.

2. **TikTok**

   1) **Definition of Tiktok**

   Over the years, information and communication technology (ICT) has developed extensively. One piece of the evidence of ICT development is emerging digital media. Digital media refers to the content that has been digitally processed and is transferable across computer networks or the internet.[33] There are various digital media forms including online massaging, electronic or video games, social media, and others digital

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[31] Richard E. Mayer and Moreno Roxana, "Nine Ways to Reduce Cognitive Load in Multimedia Learning," *Educational Psychologist* (2003): 43–52.

[32] Richard E Mayer, "Multimedia Learning" (2002): 85–139.

[33] Abraham Das, "Impact of Digital Media on Society," *International Journal of Creative Research Thoughts (IJCRT)* Volume 8, no. 5 (n.d.): 2742, https://www.researchgate.net/publication/347444440_IMPACT_OF_DIGITAL_MEDIA_ON_SOCIETY_Introduction.

communication.[34] One of digital media forms is social media. Social media refers to online social networks. There are a lot of social media types including Instagram, Facebook, Youtube, TikTok, WhatsApp, etc.

One social media type is TikTok. TikTok is a mobile application that can be organized using mobile devices such as smartphones, tablets, etc. Hence, the students can organize it anywhere and anytime. Tiktok is an application which enables users to make and distribute short videos with music that involve lip-syncing, sketch comedy, dancing, and jokes.[35] In addition, Tiktok can span from 15 seconds to 3 minutes. The users can create videos as creative as possible because Tiktok provides various filters, background music, and lip-synching templates[36] which can make their videos more interesting.

2) **Tiktok in English Learning**

The advancement of technology has affected human life in many areas, especially in the educational area. Social media

[34] J Nesi, E H Telzer, and M J Prinstein, *Handbook of Adolescent Digital Media Use and Mental Health* (United Kingdom: Cambridge University Press, 2022), https://books.google.co.id/books?id=i91zEAAAQBAJ.

[35] F Blaikie, "*Visual and Cultural Identity Constructs of Global Youth and Young Adults*", (New York: Routledge, 2021), https://books.google.co.id/books?id=YUEpEAAAQBAJ.

[36] Bahiyah Omar and Wang Dequan, "*Watch, Share or Create: The Influence of Personality Traits and User Motivation on TikTok Mobile Video Usage*," International Journal of Interactive Mobile Technologies. Vol 14, no. 4 (2020): 121–137.

is evidence of advanced technology which can facilitate human life to communicate and share any information with other people. According to Gupta and Bashir, one of social media functions is for the academic aspect.[37] Moreover, in the last decade almost all social media users are dominant with an average age around 9 – 29 years, this data is based on the survey of ICT usage in Indonesia in 2017.[38] It means that most social media users are the young generation or it can be called the millennial generation. Meanwhile, Tiktok is a popular video-based application which is most interested by millennial generations. According to Aji, the most of TikTok users in Indonesia are millennials who are still in school, also known as the Z Generation.[39] It means that almost all Tiktok users are students. Therefore, TikTok can be utilized to enhance teaching and learning, especially for English language learners.

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[37] Savita Gupta and Liyaqat Bashir, "Social Networking Usage Questionnaire: Development and Validation in an Indian Higher Education Context," *Turkish Online Journal of Distance Education*. Vol 19, no. 4 (2018): 214–227.

[38] Kominfo, "Survey Penggunaan TIKTOK 2017," in *Serta Implikasinya Terhadap Aspek Sosial Budaya Masyarakat* (Jl. Medan Merdeka Barat No. 9 Jakarta 10110: Pusat Penelitian dan Pengembangan Aplikasi Informatika dan Informasi dan Komunikasi Publik Badan Penelitian dan Pengembangan Sumber Daya Manusia Kementerian Komunikasi dan Informatika Republik Indonesia, 2017).

[39] Wisnu Nugroho Aji, "Aplikasi Tik Tok Sebagai Media Pembelajaran Bahasa Dan Sastra Indonesia" (2018): 431–440.

Tiktok is categorized as an audio-visual-based learning application that enables students to watch and listen to the contents. According to Mayer (2002), students can achieve a deeper understanding when the explanations are presented in the form of texts and images rather than texts alone without images.[40] Therefore, Tiktok can be categorized as multimedia that can be developed in the educational process. Mayer stated that there are 12 principles of multimedia learning which are: Coherence principle, Spatial contiguity principle, Redundancy principle, Pre-training principle, Signaling principle, Personalization principle, Temporal contiguity principle, Modality principle, Segmenting principle, Multimedia principle, Image principle, Voice principle.[41]

Moreover, among 12 Mayer's multimedia principles above, there are 4 principles which appropriate for Tiktok application as the following descriptions

a) Spatial contiguity principle

The spatial contiguity principle concerns a distance between texts and visuals on the screen, which means that the space between texts and images are close

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[40] Richard E Mayer, "Multimedia Learning" (2002): 85–139.

[41] Ibid.

to each other. The integrated appearance enables students to learn best from the text that is physically close to the visual subject rather than with a separated appearance. Furthermore, in the context of Tiktok as spatial contiguity, users of the TikTok app can upload their own visual subjects and customize the text that appears around those visual subjects. Therefore, from that appearance students can achieve meaningful learning.

b) Temporal Contiguity Principle

The temporal contiguity principle is when visuals are presented with spoken temporally synchronized. When the visuals and spoken materials are presented simultaneously, students are able to learn better rather than when presented successively. Furthermore, in the context of Tiktok, the application allows the users to create videos as creative as possible by extending texts, images, videos, with music or voice over simultaneously, so that it can make students acquire more comprehension with the video created.

c) Multimedia Principle

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The multimedia principle is the fundamental of Mayer's theory, which holds that explanations delivered with both texts and images rather than just texts help people learn more effectively. This principle believes that people can learn more effectively with texts and images than just with texts alone. Meanwhile, the Tiktok application allows the users not only to insert videos but also the images or videos that can be edited with the texts. Therefore, Tiktok can be utilized as a teaching media to make the process of learning more meaningful.

d) Modality Principle

When people learn through both verbal and visual content simultaneously, this is known as the modality principle. The modality principle believes that spoken word is preferable rather than printed text when it comes to improving student learning. It does not mean that learning with images and texts is ineffective. However, it simply means that if images are presented with too much text, it enables students to be overwhelmed. Tiktok allows the users to insert their voice recording or music in the visual subject that they

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have uploaded. Hence, it enables students to learn more effectively and receive more comprehensible input.

A study by Ismail et al. revealed that TikTok is an application that is useful to be used as an educational tool to learn the English language.[42] Furthermore, based on the explanations above, Tiktok is categorized as multimedia learning that can help students to receive valuable education, particularly in English learning. A TikTok application allows the users to create interesting videos by inserting visual subjects, music or voice overs, texts, etc. Therefore, Tiktok can assist students to master some important English abilities such as speaking, writing, listening, and reading.

Moreover, there are some studies conducted by implementing Tiktok videos as media to enhance students' English skills. For example, the study by Zaitun et al. which use Tiktok to improve students' speaking skill by asking them to create a storytelling video in Tiktok about describing the object that they are

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[42] Isma Noornisa Ismail et al., "Investigating the Usefulness of TikTok as an Educational Tool" Vol 1, no. 2 (2021): 2–6.

interested in; the result was significantly increased rather than when the researchers asked students to tell the story in the class. Moreover, researchers discovered that students had greater confidence speaking in English after using TikTok, and helped students to convey their ideas freely. In addition, Tiktok was used to learn descriptive material in MAN 1 Gresik in a study by Syaifuddin et al. by conducting a survey. The study's findings revealed that most students had favorable impressions regarding the utilization of TikTok to learn descriptive text. The researchers found that Tiktok videos could assist the students to understand the descriptive text; furthermore, Tiktok could encourage students to take a part in the process of composing descriptive written material because TikTok is enhanced with various activities designed which allow students to write in a fascinating way as the interest. Hence, Tiktok is applicable as an educational tool in English learning. Then, the study conducted by Koniah et al. which focused on the affective domain involved students' feelings, judgements, and attitudes on learning the simple present tense using TikTok videos. The result revealed that most

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students were pleased with their learning of the simple present tense after watching TikTok videos. Most students believed that watching TikTok videos would inspire them to study the simple present tense, and the majority of students found it enjoyable to do so. Most students also believed that TikTok videos would inspire them to engage in studying the simple present tense. Most students assumed that with TikTok videos their curiosity to learn simple present tense was enhanced.[43] From the result described can be concluded that when using TikTok videos to teach simple present tense, students were excited and delighted with what they have learned. Hence, from those previous studies it can be indicated that TikTok is a great medium for motivating students to learn English and helping them to master some English skills.

3. **Writing**

   1) **Definition of writing**

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[43] Siti Khafidhotul Koniah et al., "The Phenomena of Students' Responses Toward The Use of TikTok Videos in Learning Simple Present Tense at SMK Al-Mustawa in Randublatung" (n.d.): 1–6.

Actually, there are many different writing's definitions which are delivered by several experts. According to Murcia writing is the capacity to convey personal ideas in the foreign or second language in the written form.[44] In other words, writing is an action done by humans to convey their idea in the form of text or script. It is aligned with Nunan who stated that writing refers to the mental work of organizing ideas into phrases and paragraphs, thinking through how to represent the ideas, and doing all of this in order to produce a manuscript that is readable.[45]

Moreover, Hyland stated that writing is the technique for communicating the personal meaning and stressing the ability of each person to form their own opinions on a particular topic.[46] It indicates that writing is the action which involves personal thought to communicate ideas about a certain topic in the form of text.

Therefore, from those definitions above can be summed up that writing is a mental activity that enables people to

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[44]Murcia," Teaching *English as a Second or Foreign Language"*, 3rd Edition (Heinle, 2001).

[45] David Nunan, *Practical English Language Teaching*, 1st edition. (New York: McGraw-Hill, 2003).

[46] Ken Hyland, "*Second Language Writing",* (Cambridge: Cambridge University Press, 2004).

organize their thoughts so they can convey those thoughts through text in the form of phrases and paragraphs.

2) **Purpose of Writing**

Based on Nunan the writing goal is to express and impress. It indicates that typically writers often write for two purposes: for themselves and their desire to communicate their thoughts or feelings, and for readers.[47] It means to make the readers impressed with what they have written.

In addition, according to Hugo Hartig in the book of Henry Guntur Tarigan (1986) stated that there are several writing purposes, which are:

a. Assignment Purpose

The purpose of the assignment is actually completely undefined. It implies that the author only writes out of obligation, not on his desire.

b. Altruistic Purpose

The purpose is to entertain readers, prevent their unhappiness, make them understand and respect his thoughts and motivations, and generally make their lives easier and more joyful.

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[47] David Nunan, *Practical English Language Teaching*, 1st edition. (New York: McGraw-Hill, 2003).

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c. Persuasive Purpose

To persuade readers of the actual thoughts that writers have presented.

d. Informational Purpose

The aim is to provide explanation or information to the readers

e. Self-expressive Purpose

The aim is to provide readers a brief description of the writers.

f. Creative Goals

This goal is closely related to self-expression. However, the motivation behind creative desire in this instance goes beyond self-expression. It involves writers with their desire to achieve artistic norms or ideal art. In other words, this goal is for achieving artistic values and art values.

g. Problem Solving Purpose

For this purpose, writers want to solve a problem that is faced. Writers are attempting to solve an obstacle. In order for readers to comprehend and embrace the writers' thoughts and ideas, writers seek to meticulously analyze,

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clarify, and explain ideas so that they can be understood and accepted by readers.[48]

B.   **Review of Previous Study**

Numerous prior investigations have been conducted in relation to this research topic. These include a study which implements multimedia learning in English writing, three studies on the utilization of the modality principle in the learning process, two studies on the integration of TikTok in English learning, then two studies on the incorporation of TikTok in English writing.

The first is a research by Xiangying Cao which implements multimedia in the process of learning English writing. An experimental research design was used to carry out the research. and the subject is 6 parallel classes Mathematics and physics school of X University which are divided into 2 groups: an experiment group that consists of the first three classes with 151 students, and control group that consists of three other classes with 152 students. Pretest and posttest tests were administered to gather the data, and questionnaire surveys were applied. The pre-test was administered by giving students the English writing test; furthermore, for each group, the researcher provided a treatment. For the experiment group, the study was done using a blend learning strategy that makes use of multimedia learning equipment. Then for the control group it is done by conducting a teaching traditional method. Moreover, the researcher

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[48] Rayendriani Fahmei Lubis, "*Writing Narrative Text*", English Education. Vol 02, no. 01 (2014): 61–76, http://jurnal.iain-padangsidimpuan.ac.id/index.php/EEJ/article/view/115.

asked students to do an English writing test. A survey questionnaire was distributed using 5 Likert scoring methods and the questions included 4 dimensions: students' behaviors toward English writing, students' behaviors towards feedback from teachers, students' behaviors towards feedback from peers, and students' behaviors towards mixed feedback. The findings indicated that students have favorable attitudes toward the blended approach to learning writing that incorporates multimedia technology because it lets students improve their interest and enthusiasm in English writing; thus, it has the potential to improve students' capacity to comprehend the development of self-awareness and boost their efforts to learn, especially in English writing.[49] Therefore, it can be concluded that implementing multimedia technology in English writing is very useful.

A study conducted by Umutlu and Akpinar about the effect of different video modalities on students' writing achievement. This study was conducted using experimental design with 127 pre-intermediate students in the intensive class program of a state university at Istanbul, Turkey. The participants are around 18 – 19 years old or it can be said that the participants are in the first semester. Furthermore, the participants are placed into two distinct groups: the control and the experimental groups, in addition; there were 6 experimental groups and 1 as a control group. Pre-test and post-test were given; the pre-test

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[49] Xiangying Cao, "*Teaching of College English Writing from the Perspective of Multimedia Education,*" Wireless Communications and Mobile Computing (2022).

http://digilib.uinsby.ac.id/http://digilib.uinsby.ac.id/http://digilib.uinsby.ac.id/

was done by asking both groups to write the classification essay with the topic types of TV programs. Moreover, treatment was delivered to both groups. The experimental group acquired six video lectures on the topic of essay writing, which were divided into three sections. These sections covered the classification of essays, the classification essays organization, and the efficient utilization of language structures in classification essays. Meanwhile, for the control group a traditional setting class was applied with the same instruction as the experimental group. In addition, after all groups acquired a treatment, they were given 12 multiple choice recall questions tests. Furthermore, a post-test was administered to each of the groups which asked to write the essay classification about movie types. The result revealed that all of the experiment groups obtained better scores compared to the control group in the recall task and essay as a post-test.[50] It is possible to infer that students learn better when materials were presented in the form of modality or be presented auditorily on the screen rather than presented in the class traditional setting.

Saguni's study examined whether there existed any significant differences in academic achievement among students who implemented the modality and contiguity principles, in comparison to those who did not utilize these principles. Then, the research was carried out using experimental research with three distinct experimental groups: (1) the narration group, (2) the

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[50] Duygu Umutlu and Yavuz Akpinar, *"Effects of Different Video Modalities on Writing Achievement in Flipped English Classes,"* Contemporary Educational Technology. Vol. 12, no. 2 (2020): 1–16.

incorporated text group, and (3) the separated text group. Additionally, a control group was included in the study, in which students did not receive any form of treatment. The research implementation involves provision of computerized material consisting of 90 computers for multimedia presentations about how lightning occurs. The result revealed that students who taught using modality and spatial contiguity principles had better learning outcomes rather than students who did not use those principles. It was classified that the students who taught using narration and animation or it is called a narration group had better learning outcomes rather than students who taught using integrated text. Furthermore, the integrated text group had the better learning outcomes rather than a separated text group.[51] It seems that the application of the modality principle was useful for students' learning outcomes.

However, there was a study that did not support the usefulness of the application of a modality principle in the process of learning which was a study by Zhu et al that conducted an experiment with 75 students of southeastern university in the United States. This study was conducted with 4 unique treatments which were text-picture present (TP), text-picture absent (TA), narration-picture present (NP), narration-picture absent (NA). Furthermore, the students viewed a presentation of intervention entitled "Discovering Australia", the presentation was provided with 4 multimedia conditions as the treatments;

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[51] Fatimah Saguni, "Prinsip-Prinsip Kognitif Pembelajaran Multimedia: Peran Modality Dan Contiguity Terhadap Peningkatan Hasil Belajar," *Insan,* Vol. 8, no. 3 (2006): 147–157.

then, the students completed the learning performance tests which consist of 40 questions involving 20 cued-recall and 20 multiple choice questions. The students also provided feedback regarding their level of satisfaction with the intervention and their perceived cognitive working out. The findings reveal that there was no statistically significant difference in learning performance across the four treatments, mental effort, and satisfaction. However, there was a significant difference in the visual attention among those 4 conditions. The researchers found that in NP condition students paid more attention to the picture rather than in TP condition where students paid more attention to the text on screen.[52]

Furthermore, the study conducted by Huining Yang about the application of TikTok in and beyond EFL classroom was conducted using qualitative survey research with 187 Chinese secondary school students as the participants. Furthermore, The researcher employed an online questionnaire for gathering data consisting of 10 questions which involved 9 were multiple-choice and 1 was open-ended questions and results were analysed using a descriptive way. The finding revealed that almost all participants gave a favorable attitude towards utilizing TikTok as a medium to English learning both within and outside the classroom setting. They stated that within the

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[52] Jiawen Zhu et al., "Investigating How Multimedia and Modality Design Principles Influence Student Learning Performance, Satisfaction, Mental Effort, and Visual Attention," *Journal of Educational Multimedia and Hypermedia* 29, no. 3 (2020): 265–284.

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classroom TikTok can be used as the video aids in the English traditional setting class, improved their motivation and English basic skill, and improved their classroom activities. While out of the classroom Tikok can be used as a medium to enrich English knowledge, and as an access to obtain authentic English materials and cultivate student's interest in English learning.[53] It can be indicated that TikTok is useful to improve the English learning both within and outside the classroom setting.

Syaifuddin et al. conducted a study on the perceptions regarding the utilization of TikTok in enhancing the learning of written descriptions. The research employed a descriptive quantitative design and focused on students from MAN 1 Gresik. The study involved a total of 85 participants. The study involved a survey on the utilization of TikTok as a tool for teaching descriptive text in MAN 1 Gresik. The researchers administered a questionnaire consisting of 15 questions, categorized into three sections. These sections aimed to gather information from students regarding their perceptions of TikTok's impact in writing descriptive text, its specific contributions, and the criteria for its effective use in teaching and learning activities. The findings of the research indicated that most of the students were in favorable perceptions. The researchers found that TikTok videos could assist the students to comprehend

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[53] Huining Yang, "Secondary-School Students' Perspectives of Utilizing Tik Tok for English Learning in and beyond the EFL Classroom," *International Conference on Education Technology and Social Science (ETSS 2020)*, (2020): 162–183.

the descriptive text; furthermore, the utilization of TikTok may potentially motivate students for participating in the process of creating descriptive text because TikTok Video is enhanced with various activities designed which allow students to write in a fascinating way as the interest.[54]

A research investigation carried out by Salsabil aimed at finding the perceptions of students toward the utilization of TikTok in their procedural texts composition. The research was carried out through the utilization of survey design, wherein a questionnaire was distributed to gather data on three key indicators, namely cognitive, affective, and cognitive. Findings of the research indicate that students held favorable perceptions towards two categories: (1) the percentage strongly positive category was 52.94%, and (2) the positive category was 47.06%. Therefore, it can be inferred that the utilization of TikTok videos is suitable for facilitating learning of writing procedural texts.[55]

A study conducted by Fachri Ichsan aimed to investigate the potential of TikTok as a medium of teaching for hortatory exposition texts. The research employed the Research and Development (R&D) method and involved students enrolled in a writing course at Pekalongan University as the study participants. Additionally, the researchers employed documentation techniques and

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[54] Syaifuddin. Nabilah. et Al., "*Students' Perception toward the Use of TikTok Video in Learning Writing Descriptive Text at MAN 1 Gresik*," Journal of Research on English and Language Learning (J-REaLL). Vol. 2, no. 1 (2021): 16–21.

[55] Putri Syahla Salsabila, "Students' Perception Toward the Use of TikTok Video in Learning Writing Procedure Text at Senior High School 2 Rambah Hilir" (2022): 1–62, https://www.who.int/news-room/fact-sheets/detail/autism-spectrum-disorders.

questionnaires to gather the data. Furthermore, the analysis of the data was conducted concurrently with the validation process by experts and user testing. The result revealed that after passing some validation test from the authority, using TikTok Video can be received as an effective media to teach writing hortatory exposition text. Due to this research R & D research design, the researchers developed some videos in Tiktok to students' who took writing for personal context class. Then it was validated by the lecture of that class and the result is very good with minor revision.[56] It means that Tiktok video is effective to teach writing hortatory exposition text.

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[56] Fachri Ichsan, "*Developing Educative Tik Tok Content as Writing Teaching Media of Hortatory Exposition Text*" (2021): 419–428.

CHAPTER III

RESEARCH METHOD

This chapter is focused on elaborating the ways the researcher conducted the study about the modality principle of TikTok to facilitate students' writing ability which involved (1) the research design, (2) the research subject and setting, (3) the data and source of data, (4) the research instrument, (5) the data collection technique, (6) the data analysis, and (7) the research validity.

A. Research Design

The present investigation utilized an experimental research design. The objective of this research was to investigate how a modality principle of TikTok affected students' ability to write in English. Additionally, the present investigation employed a quasi-experimental research design. A quasi experimental research design is considered valuable since it enables the researcher to come to reasonable conclusions even though complete control is not attainable. Furthermore, quasi experimental research involves independent variable manipulation; however, the subjects of the research which consist of control and experiment groups cannot be assigned randomly.[57]

In this case, the researcher is constrained to manipulate the population since it has been suggested by an English teacher of UPT SMPN 9 Gresik to

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[57] Donald Ary, Lucy Cheser Jacobs, and Chris Sorensen, "*Introduction to Research in Education*", 8th edition. (USA: Wadsworth Cengage Learning, 2010)

select 2 grades which are 9A grade and 9D grade because both of them have almost average score in final examination at 8th grade that is around 75%.

The 2 grades were separated into 2 groups which were the control group and the experimental group were compared by the researcher. Both groups were given two tests namely pre and post tests. The design is illustrated below:
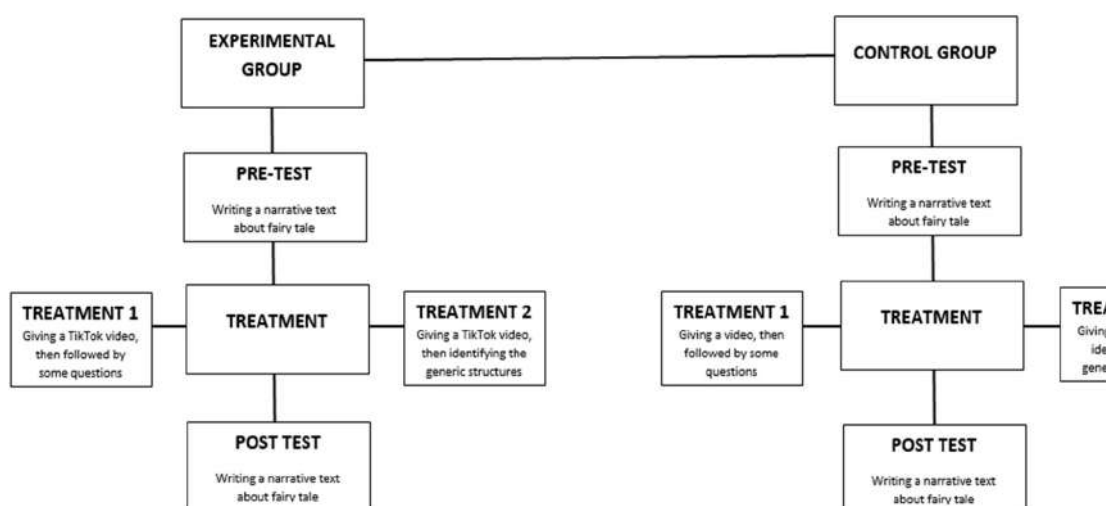
Table 3.1 Research Design

Both experimental and control groups have equal opportunity, it has been symbolized in the table above (see table 3.1) with the horizontal line between experimental and control groups. Therefore, some treatments were delivered to both groups.

The procedure of the research was equal for both experimental and control groups. Before administering a pre-test, the researcher recalled students' understanding about narrative text material including definitions, social functions, generic structures, and language features. Then, the pre-test

was administered for both groups to find out their original writing ability. The pre-test was done by asking both groups to write a narrative text based on their favourite fairy tale story.

Moreover, after the pre-test administered, the treatment was given to both groups. Each group obtained 2 treatments as symbolized in the table above (see table 3.1). For the experimental group the 1st treatment was given by showing a TikTok video about a fairy tale story which involved the modality principle, then to check students' understanding of the TikTok video given, some questions related to the story presented in the TikTok video were given by the researcher. While for the control group the 1st treatment was given by showing an animation video with text on screen only without any narration about a fairy tale story, then to check students' understanding of the video given, the questions are given related to the story presented in the video.

Furthermore, the 2nd treatment for the experimental group was given a TikTok video about a fairy tale story which involved the modality principle, then students were instructed to figure out generic structures of the story. While for the control group, the second treatment involved the presentation of an animation video containing only textual components without any accompanying narration about a fairy tale story. Then, students were subsequently instructed to figure out the generic structure of the story.

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A post-test was conducted after the treatments given for both groups by requesting students to compose a narrative text within the context of a fairy tale based on the video that has been watched.

B. Subject and Setting of The Study

The research was conducted at 9th grade of UPT SMPN 9 Gresik which is located at Balongpanggang, Gresik, East Java. Furthermore, the researcher selected 9th grade because the focus on the writing that was taken is about the narrative text which is a fundamental skill outlined in the basic competency standards in the middle school students at this level. The researcher decided to take UPT SMPN 9 Gresik as a school for conducting the study because as the researcher's observation result, most of the students still have low English writing ability; furthermore, most of the students in that school are TikTok users. Therefore, this study can be conducted at that school.

1. Population

The population of this research was the students of 9th grade in UPT SMPN 9 Gresik which consisted of 8 grades and were divided into A until H. Furthermore, the total number of students at 9th grade of UPT SMPN 9 Gresik is around 251 students.

2. Sample

In this study non random sampling technique was applied since the researcher has a limitation to select the population randomly. The sample that was taken by the researcher was students at 9D grade which

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consisted of 32 students and 9A grade which consisted of 31 students. The selection of those grades was based on the suggestion of an English teacher of UPT SMPN 9 Gresik, since both grades have an average score around 75% in English subjects at 8th grade final examination. In addition, based on the researcher's observations of the students, it appears that their fundamental writing skills in English are lacking. Consequently, this study was carried out with 9D serving as the experimental group and 9A as the control group. The experimental and control groups were chosen randomly, because both grades have the same English final examination score and have the same level of writing skill.

C. Data and Source of Data

1. Data

The researcher utilized the primary data to answer questions of this research. The primary data is data acquired from individuals or who directly observe or witness the occurrences. Furthermore, the data of this study is the ways the modality principle of TikTok facilitates students' writing ability, and the significance difference score shown by the statistical calculation of students who use the modality principle of TikTok and students who use videos which involve animation and text. Therefore, this study used interviews and tests to acquire the data about

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the application of the modality principle of TikTok to facilitate students' writing ability.

2. Source of Data

Students in the 9D grade of UPT SMPN 9 Gresik served as the data source for the first research question and as an experimental group. And the data source of the 2nd research question came from students at 9A and 9D grades of UPT SMPN 9 Gresik as the control and experimental groups.

D. Research Instrument

Instruments that were utilized to answer the questions of research in this study were interview guidelines and writing tests.

1. Interview Guideline

The researcher employed the interview guideline to address the first question of this study because it enables control of the researcher's questions and the proper data collection. The researcher interviewed 5 students in the 9D grade as the experimental group about the ways the modality principle of TikTok facilitates students' writing ability.

The interview guideline was adopted from the research of Shafira and Rosita and combined with Mayer's theory about the modality principle. The researcher has adopted several questions from

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Shafira and Rosita,[58] then modified them with Mayer's theory and developed them so that they were in accordance to answer the 1st research question of this study. The interview guideline consisted of 19 questions which have been divided into 3 parts which are opening questions, main questions, and closing questions.

2. **Writing Tests**

The test was a writing exercise, and it was separated into two sections which are a pretest and a posttest.

a. Pre-test

The pre-test was administered to the control and experimental groups after they were taught about the narrative text material. In addition, before the treatment, the pre-test was given to measure student's original writing proficiency. The pre test was done on 6th February 2023 by asking both groups to write a narrative text based on their favourite fairy tale story.

b. Post test

The post-test was carried out after the treatment received by both groups. The post test was administered to assess students' writing achievement scores after giving the treatment.

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[58] Redha Shafira and Nur Rosita, "Students' Perception on the Use of Audio-Visual Materials in Learning English at Senior High School," *Journal of English Language Teaching* Volume 11, no. 3 (2022), http://ejournal.unp.ac.id/index.php/jelt.

The post test was done on 15th February 2023 for the control group and 17th February 2023 for the experimental group by asking students to write a narrative text in the context of a fairy tale based on the video given.

E. Data Collection Technique

The researcher employed these 2 techniques for collecting the data:

1. **interview**

   To gather the data of the ways a modality principle of TikTok facilitates students' writing ability, the researcher conducts an interview. Ary stated that interviews are used to comprehend people's experiences and the meaning they put on them.[59] Therefore, the researcher interviewed 5 students in the 9D grade of UPT SMPN 9 Gresik as the experimental group in order to get information about it through semi-structured (open-ended) interviews since the researcher wants to find out the deep information about the ways the modality principle applied on TikTok facilitates students' English writing ability. In addition, while the interview was conducted, the researcher employed an audio recording device for recording the interview session so that no data is missed.

3. **tests**

[59] Ibid.

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The researcher administered 2 tests which were pre-test to measure students' original writing achievement score. Furthemore, the researcher gave the treatment to the experimental group and control group. Then, the researcher administered the post test to both groups to measure students' writing achievement score after giving the treatment. In addition, after 2 tests were conducted by the researcher which were pre and post tests, students were instructed to submit their test result to the researcher to be scored and analysed. In addition, to score the writing tests of both groups the researcher used a writing assessment rubric created by Henning (1990). There are 5 aspects scored which are content, organization, vocabulary, language use, and mechanics.

F. Data Analysis

After collecting the data, the researcher analyses the data using some methods.

1. Interview

To analyse the interview, the researcher used 2 techniques which are to organize and prepare the data, and to analyse the data:

    a. For organizing and preparing the data

    The initial preparation of analysing the data is organizing the data. To organize the data this study will use the creswell's techniques:

        1) Transcribing the Data

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Creswell stated that transcription is the process of audiotape recording or field notes conversion into the text data.[60] Therefore, to organize the data, the audio recorder of the interview was transcribed into a script.

2) Reading the Data Frequently

After the interview data was transcribed, the researcher read it several times to develop a deeper comprehension about the data.

b. For analysing the data

When the data was organized, the analysis data proceeded to utilize techniques proposed by Mattew B. Miles and Michael Huberman:

1) Data reduction

The researcher highlights some important information related to the ways the modality principle of TikTok facilitates students' English writing ability that are obtained from interview, then focused on the main idea and discard data unneeded.

2) Data display

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[60] John W. Creswell, *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research*, 4th edition. (Boston: Pearson Education, 2012).

Data display is the data presenting and analysing process from the data which have been reduced. In this stage the interview data about the ways of the modality principle of TikTok facilitates students' English writing ability was described and analysed. Furthermore, the analysis data was described in chapter 4.

3) Drawing conclusion

After all the process was finished, the researcher interpreted the interview data about the ways the modality principle of TikTok facilitates students' English writing ability to a conclusion.

2. **Test**

The tests which consist of pre-test and post test are used in this study to reveal whether the modality principle of TikTok is effective in facilitating students to improve their English writing ability or not. The data was obtained from the experimental and control groups in the form of scores of pre and post tests after receiving treatments. The researcher attempted to determine the statistically significant difference in scores between the control and experimental groups. The data was analyzed using statistical analysis utilizing SPSS 25 by the researcher. The following figure below describes about the test data analysis steps:

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Figure 3.1 The Test Data analysis steps

1) Normality Test

To determine whether the statistical analysis using parametric or non parametric statistics, it is required to test the normality first. If the normality test is violated, Inference and interpretation might not be accurate or reliable.[61] Hence, it is crucial to conduct the normality test assumption before proceeding with any relevant statistical techniques.

Furthermore, If the data have a normal distribution, it implies that a parametric statistical method, specifically the *Independent Sample T-test* has been employed to calculate the data. Otherwise, the data has not shown a normal distribution, it may be appropriate to employ a non-parametric statistical method such as the *Mann Whitney U* test for analysis.

In this study, SPSS 25 was utilized by the researcher to compute the normality test. In addition, the number of subjects in this study is 64 students; thus, Kolmogorov-Smirnov can be

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[61] Yap Bee Wah and Nornadiah Mohd Razali, "*Power Comparisons of Shapiro-Wilk, Kolmogorov-Smirnov, Lilliefors and Anderson-Darling Tests*," Journal of Statistical Modeling and Analytic*s.* Vol. 2. November (2011): 21–33.

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used for the decision making of the normality test. Moreover, if the significance value is higher than alpha 0,05 ($\alpha > 0.05$) it means that the data is normally distributed, while if the significance value is less than alpha 0.05 ($\alpha < 0.05$) means that the data is not normally distributed.[62]

2) Homogeneity Test

The homogeneity test is utilized to ascertain the homogeneity of the data distribution in this research through the comparison of two variances. The homogeneity test goal is to verify that the variance of the dependent variable is equal. This study employs Leven's Test as a one-way analysis of variance predicated on the absolute deviation of each score from the mean of the group. In addition, if the significance value is higher than alpha 0.05 ($\alpha > 0.05$) means that the data is homogeneous distribution, while if the significance value is less than alpha 0.05 ($\alpha < 0.05$) means that the data is not homogeneous distribution.[63]

3) T-test

[62] Muhammad Ali Gunawan, "*Statistik Penelitian Bidang Pendidikan, Psikologi Dan Sosial*" (Yogyakarta: Parama Publishing, 2015)
[63] Ibid

After the results of normality and homogeneity tests were found, the researcher continued to analyse whether there were any significant different between students who taught using the TikTok video which applied the modality principle and students who taught using the video which provided with the animation and text only without any narration with a relevant statistical technique. When the data is normally distributed and homogenous, an Independent sample T-test can be used to analyse the data; in addition, for the basis decision making of Independent sample T-test is if the data have sig. (2-tailed) lower than 0,05 means that the data have significant difference; on the other hand, if the data have sig. (2-tailed) higher than 0,05 means that the data have no significant difference. However, when the data is not normally distributed although it is homogenous distribution, Independent Sample T-test cannot be used to analyse the data. But for the alternative technique, the researcher can use a non parametric statistic namely Mann Whitney U Test to analyse the data with the basic decision making if the data have Asymp. Sig. (2-tailed) lower than 0,05 means that the data have a significant difference; on the other hand, if the data have Asymp. Sig. (2-tailed) higher than 0,05 means that the data have no significant difference. In addition, if the data have significant

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differences, it means that Ha is accepted and H0 is rejected; however, if the data have no significant difference, it means that Ha is rejected and H0 is accepted.

G. Data Validity

Checking validity refers to the way of determining the accuracy of the finding through some strategies.[64] In this study the researcher employed certain techniques to validate the instruments.

1. Interview Validity

The researcher employed the triangulation technique to examine the validity of the interview in this study since triangulation is a strategy for enhancing the validity or evaluation of the finding of the study.[65] It was done by combining the results from the various data in this study which were the spoken information from the students who taught using the TikTok which applied the modality principle and their written test. Then, to avoid misinterpretation of the interview result, the researcher applies the member checking technique to the 5 experimental students who have been interviewed by the researcher to reconfirm the data collection of the interview.

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[64] John W. Creswell, *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research*, 4th edition. (Boston: Pearson Education, 2012)

[65] Sandra Mathison, "Why Triangulate?" *Educational Researcher,* Vol. 17, no. 2 (1988): 13.

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2. Test Validity

The researcher employed content validity to check the tests' validity in this study. According to Brown and Abeywickrama, the term of content validity is related to what extent a given assessment evaluates a comprehensive part of the language abilities or knowledge that it is intended to measure.[66] Therefore, the content validity was done by examining the congruence of the course's objective and the test which used to measure the objective. In the other word, the content validity was done by comparing the test with the material which is dealt with in the curriculum.

According to Hendryadi, content validity refers to the validity that is determined by evaluating the viability or the relevance of the test's content using expert judgment.[67] The researcher has consulted the test designs with supervisors and has been validated by 2 English teachers of UPT SMPN 9 Gresik who teach 9A grade as control group and 9D grade as experimental group.

To examine the consistency of the test, before implementing the test the researcher administered a try out to the 9D grade as the

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[66] Brown H. Douglas & Abeywickrama Priyanvada, *Language Assessment Principle and Classroom Practices*, 3rd ed. (New York: Pearson Education, 2018).

[67] Hendryadi Hendryadi, "Validitas Isi: Tahap Awal Pengembangan Kuesioner," *Jurnal Riset Manajemen dan Bisnis (JRMB) Fakultas Ekonomi UNIAT* Vol. 2, no. 2 (2017): 171, https://bit.ly/3xA5vvu

experimental group by asking them to write a narrative text based on the fairy tale story that they are familiar with. The researcher used inter-rater reliability since the test of this study was a written test. According to Brown and Abeywickrama inter-rater reliability happens when two or more raters produce consistent results on the same exam.[68] It was implemented because scoring written tests occasionally involved human mistake, subjectivity, and bias. In this study the researcher has been assisted by 2 English teachers of UPT SMPN 9 Gresik as the raters to examine the reliability of the test. Furthermore, since this study used 2 raters in examining the reliability; thus, Cohen's Kappa coefficient was applied to find out the level of agreement of the 2 raters in assessing. Then, to determine the consistency of Cohen's Kappa value category, the researcher used the value level category proposed by Landis and Koch (1997).[69] The following table will describe the Landis and Koch's Cohen's Kappa value level category:

Value	Category
k < 0.00	Poor Agreement

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[68] Brown H. Douglas & Abeywickrama Priyanvada, *Language Assessment Principle and Classroom Practices*, 3rd ed. (New York: Pearson Education, 2018).

[69] Wahyu Widhiarso, "Melibatkan Rater Dalam Pengembangan Alat Ukur" (2010): 1–4, https://repository.ugm.ac.id/275985/1/Widhiarso - 2010 - Melibatkan Rater dalam Pengembangan Alat Ukur%282%29.pdf.

0.00 < k < 0.20	Slight
0.21 < k < 0.40	Fair
0.41 < k < 0.60	Moderate
0.61 < k < 0.80	Substantial
0.81 < k < 1.00	Almost perfect agreement

Table 3.3 The Landis and Koch's Cohen's Kappa value level category

Furthermore, the following table is the result of the Cohen's Kappa analysis using SPSS 25:

Rater 1 * Rater 2 Crosstabulation

Count

		Rater 2							Total
		40	50	55	60	65	70	75	
Rater 1	40	0	1	0	0	0	0	0	1
	50	1	0	0	1	0	0	0	2
	60	0	1	1	6	1	0	0	9
	65	0	0	0	3	3	2	0	8
	70	0	0	0	0	1	6	1	8
	75	0	0	0	0	0	1	3	4
Total		1	2	1	10	5	9	4	32

Symmetric Measures

		Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Measure of Agreement	Kappa	.441	.106	4.948	.000
N of Valid Cases		32			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

Table 3.4 The Result of Cohen's Kappa Analysis

The findings presented in Table 3.4 indicate that the value of Cohen's Kappa is 0.441 and based on the Landis and Koch's Cohen's Kappa value level category, the value 0.441 is categorized as moderate.

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It means that the test is reliable and can be applied to test students'
writing ability.

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CHAPTER IV

FINDING AND DISCUSSION

The chapter describes results of the study about how a modality principle of TikTok facilitates students' writing ability and the difference score between students who taught using the modality principle of TikTok and students who taught using the video which consist of animation and text without any narration. Then, it is divided into two distinct parts. The first part is about the finding of the study, and the second part is about the discussion of the research finding which is relevant to the theories.

A. Research Finding

The explanation below explains the finding of the two research questions which are in what way does the modality principle of TikTok facilitate students' English writing ability, and are there any significant differences on the students' writing ability between students who use the modality principle of TikTok and students who use videos which involve animation and text only.

1. The Ways of The Modality Principle of TikTok Facilitates Students' English Writing Ability

To find out the ways the modality principle of TikTok facilitates students' writing ability, the researcher interviewed five students in the experimental group. The outcome revealed that there are two aspects

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why TikTok helped facilitate students' writing namely providing animation and texts with simultaneous narration (see figure 4.1).
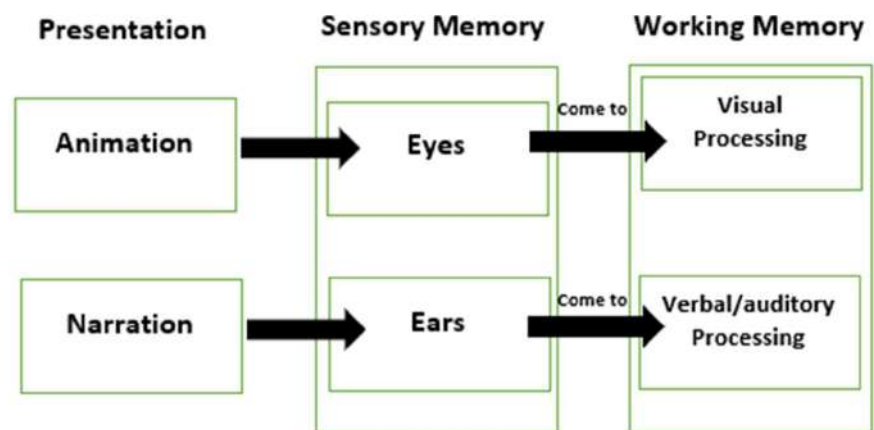
Figure 4.1 The Students' Memory Processing

As described in figure 4.1 the use of animation helps facilitate students' writing skill since the animation came to the students' visual memory processing through their eyes and the narration came to the students' auditory memory processing through their ears simultaneously; so, students can achieve a deeper understanding and it enables them to enhance their writing ability.

The following description explains about the further explanations of the the two aspects of why TikTok facilitate students' writing:

a. **Providing animation**

In the modality video the animation is provided to expose the object. In the modality principle the

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animation is categorized as visual aid which comes to the students' visual memory processing through their eyes. Furthermore, the implication of the animation existance is:
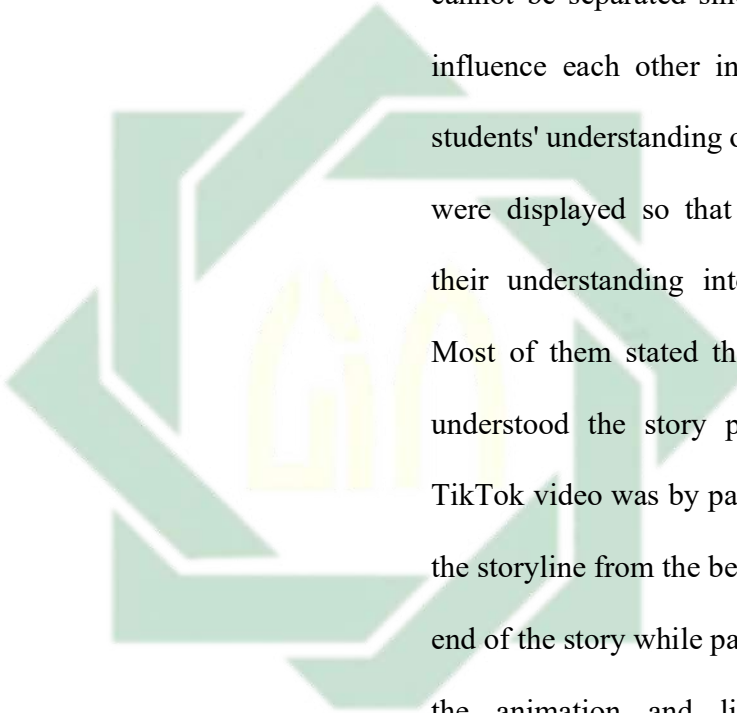
1) **Assisting to Understand the Storyline**

   based on the interview result the use of animation is to assist students in understanding the storyline. The students stated that through the animation they can view the occurrences which occurred in the story. The students stated that:

   "*In the video there is an animation that describes the object which makes it easy for me to understand what is happening in the story*" (Student 1)

   "*The animation provided in the TikTok video really help me in understanding the storyline*" (Student 2)

   "*Through the animation presented I can watch the occurrence in the story*" (Student 3)

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Actually, in the modality principle the application of animation and the text which presented auditorily cannot be separated since both of them influence each other in the process of students' understanding of the stories that were displayed so that they can apply their understanding into their writing. Most of them stated that the way they understood the story presented in the TikTok video was by paying attention to the storyline from the beginning until the end of the story while paying attention to the animation and listening to the narration carefully.

"By looking at the animation that describes the movement or directions of the storyline and by listening to the conversation or narration" (Student 1)

"By understanding the storyline, paying attention from beginning to the end" (Student 2)

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"I understand the video thoroughly and it can happen because the animated video that is presented is very clear and detailed. If the second is about the narration, in my opinion, the narration is very clear too" (Student 3)

b. Providing The Text with Narration Simultaneously

In the modality principle the presentation should be presented auditorily. In this case the narration came to the students' memory processing through their ears. Moreover, the implications of the existance of the text which presented with the narration simultaneously are:

1) Assisting to Understand the Storyline

Based on the interview's results, the existence of text which was presented with narration simultaneously assisted students in understanding the story easily.

"Through the text which presented with narration can help me to more understand to the TikTok video" (Student 1)

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"The text provided during learning can assist me to get comprehensive understanding before doing next step activity" (Student 2)

"Because through text and narration I can add to the vocabulary that I know so that I can understand the story easily". (Student 3)

2) **Improving Students' Vocabulary with the Correct Pronunciation**

Furthermore, according to the interview conducted with five experimental students, it was found that the majority of them felt that the application of TikTok video which provided animation, text with narration simultaneously assisted them to improve their writing ability. Most of them stated that by the existence of the text which presented with the narration simultaneously, they can improve their vocabulary mastery with the correct pronunciation as well as possible.

"*It also increases our vocabulary because there is also pronunciation and text*" (Student 1)

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"*The existing text and narration can help me to add a new vocabulary for me who is just learning English*" (Student 2)

"*I can find new vocabulary from the text and narration presented in the video so that I can understand the contents of the story and apply it to writing*". (Student 3)

3) Assising to Understand the Use of the Simple Past Tense

Then, one of student stated that from the TikTok video which provided the text with the narration simultaneously she can learn about the application of the simple past tense within a story, so that she can apply the simple past tense in her writing, she stated "*from this video I can learn about the simple past tense and how to use it*"

4) Assisting to Fix the Student's Error Spelling

The other one stated that by watching that TikTok video which provided texts with the narration simultaneously he can fix the

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spelling of some words, he stated *"This story can help me to write English because in every word I write sometimes is missing. So, I mean I often write the vocabulary and the spelling is missed. For example, I want to write thought, I write not as thought, I often write it though, and "t" is missed, but after watching the video, I can fix it"*.

5) **Assisting to Elaborate Student's Ideas**

The other stated by watching TikTok video which provided with animation, text with simultaneous narration can assist him when elaborating his ideas, also in the first time (before treatment) because he has difficulty in explaining what was on his mind so that he can write the narrative text well, he stated *"Actually I can't learn English but because of the tiktok, finally I can learn a little bit about writing narrative text earlier. Yesterday, during the pre-test, it was difficult to explain what was on my mind"*

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Moreover, from the interview result can be faound that students have a certain strategy to help them in understanding the story that presented on that TikTok video so that they can write a narrative text well which is by paying attention to the animation presented and listening to the narration carefully, then they stated that if there was a difficult word that they did not understand yet, they write it on the paper then they seeked it in their dictionary so that they can understand to the story and can apply their understanding into their writing.

"*I wrote down the vocabulary I didn't understand and then looked it up in the dictionary*" (Student 1)

"*I listen and I look carefully, then I write down the vocabulary that I find difficult, then after that I look for the meaning of the vocabulary. With that, I can understand the meaning and intent of the video and I can apply the vocabulary and narrative text to my writing*" (Student 2)

"*I watch the video carefully and then if I find new vocabulary that I don't understand, I look for its meaning*". (Student 3)

Thus, the conclusion of students' responses above is that the application of the modality principle of TikTok assisted students in transferring the knowledge so that they can understand the story presented and can apply their understanding to their writing.

2. **The Significant Difference Score Between Experimental Group and Control Group**

To evaluate whether the analysis calculation of the score between experimental and control group using parametric or non parametric statistics, it requires conducting normality and homogeneity tests. In the event that the data exhibits homogeneity and a normal distribution, it is appropriate to employ the Independent Sample T-test as a parametric statistical method to proceed with the data analysis. On the other hand, if the data have no normal distribution and no homogen means that the data analysis is still possible calculated using the *Mann Whitney U* as a nonparametric statistic.

According to the statistical analysis conducted using SPSS 25, it has been determined that the data do not have a normal distribution but rather are homogeneous (see appendix 8). Due to the assumption did not complete the parametric qualification requirement; therefore, to find out whether there existed a statistically significant difference in the pre-test and post-test results between the control and experimental groups

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utilizing a non-parametric statistical method known as *Mann Whitney U* with the basic decision: if the data have Asymp. Sig (2-tailed) lower than $\alpha = 0.05$ it implies that there is a statistically significant difference in the data; on the other hand, if the data have Asymp. Sig (2-tailed) higher than $\alpha = 0.05$ it indicates that there is no statistically significant difference in the data. The following description describes the findings of *Mann Whitney U* analysis.

1) **The Difference Score of Pre-test Both Experimental and Control Groups**

In determining whether any significant difference in the pre-test score between experimental and control groups, the researcher used a non parametric statistic namely *Mann Whitney U.* The following table presents the findings of *Mann Whitney U* analysis of pre-test:

Ranks

	Group	N	Mean Rank	Sum of Ranks
Pre-test Score	Experimental Group	31	30.50	945.50
	Control Group	28	29.45	824.50
	Total	59		

Test Statistics[a]

	Pre-test Score
Mann-Whitney U	418.500
Wilcoxon W	824.500
Z	-.241
Asymp. Sig. (2-tailed)	.810

a. Grouping Variable: Group

Table 4.1 Mann Whitney U Analysis of Pre-test

The findings presented in Table 4.1 indicate that the Asymp. Sig (2-tailed) was .810 which implies that the significant value was higher than $\alpha = 0.05$ ($0.810 > 0.05$). Thus, it is likely inferred that there existed no significant difference in the pre-test score between the control and experimental groups.

The results presented in table 4.1 indicate that there was no statistically significant difference in the pre-test scores between both groups; therefore, it indicates that before receiving the treatment, both experimental and control groups have equal writing ability.

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2) **The Difference Score of Post-test Both Experimental and Control Groups**

In determining whether any significant difference in the post-test score between experimental and control groups, the researcher used a non parametric statistic namely *Mann Whitney U.* The results of *Mann Whitney U* analysis of post-test are displayed in the following table:

Ranks

	Group	N	Mean Rank	Sum of Ranks
Post-test Score	Experimental Group	31	41.21	1277.50
	Control Group	30	20.45	613.50
	Total	61		

Test Statistics[a]

	Post-test Score
Mann-Whitney U	148.500
Wilcoxon W	613.500
Z	-4.637
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Group

Table 4.2 Mann Whitney U Analysis of Post-test

The result of the table above (table 4.2) revealed that the Asymp. Sig (2-tailed) yielded a value of .000 which means that the significant value was lower than α = 0.05 (0.000 < 0.05). Thus, it inferred that a significant

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difference existed in the post-test score between the control and experimental groups.

Based on the statistical analysis of the pre-test and post-test outcomes (see tables 4.1 and 4.2), it can be inferred that there existed a significant enhancement in the score of the experimental group when using the TikTok modality principle as compared to the control group which used a video with only animation and text without any narration who had degradation score. Therefore, it is possible to infer that the application of the modality principle of TikTok can assist students in improving their writing ability.

The result of the table above (table 4.2) revealed that there existed a significant difference in the post test scores (after treatment) between the experimental group who apply a modality principle of TikTok in their writing and the control group who apply animation and text in their writing. Therefore, the decision based on the results of Mann Whitney U test of the post test above is Ha (alternative hypothesis) is accepted with the Asymp. Sig (2-tailed) $0.000<0.05$ and H0 (null hypothesis) is rejected.

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B. Discussion

The aim of this research is to investigate the ways of the modality principle of TikTok facilitates English writing proficiency of students and to determine whether there were any significant differences in the writing ability of students between the experimental group which used TikTok videos that involves the modality principle, and the control group which used videos with only animation and text. The result of this study indicates the usefulness of applying the modality principle in the process of learning.

1. The Ways of The Modality Principle of TikTok Facilitates Students' English Writing Ability

The researcher found that students felt easy to understand the story presented in the TikTok video because the TikTok video provided animation, and text which was presented with narration simultaneously. It linked with the dual coding theory assumed by Pavio that the human information process consists of two separate channels which are verbal and visual channels, then each channel has load capacity.[70] According to the limited capacity assumption, both of two channels which are visual and verbal channels have limited load capacity; thus, humans can only process a certain amount of information at a time in each channel, and when these processing resources are overwhelmed, cognitive

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[70] Alan Pavio, "*Mental Representation: A Dual Coding Approach*", Series 9th. (New York: Oxford University Press, 1986).

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performance is overloaded.[71] The cognitive overload capacity situation can occur when the presentation is presented in the form of animation with visual screen text only, this situation enables students to focus on the animation and text simultaneously, so that it enables the students' visual working memory to be overloaded.[72] To avoid the cognitive overloaded, the presentation should be presented in the form of animation with audio narration as Mayer stated that when the students achieve the presentation with animation and text which is presented auditorily, the animation comes into students' cognitive system through their eyes then it raises the visual working memory; meanwhile, the narration comes into students' cognitive system through their ears, then it raises the auditory working memory.[73] Therefore, that situation is able to avoid the cognitive overload capacity, so that students were able to acquire a deeper understanding of the story presented in the TikTok video which applied the modality principle.

The researcher found that most students felt the TikTok video which provided the modality principle can improve their English writing achievement, and it was proven with their improvement score

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[71] Richard E. Mayer, *Cognitive Theory of Multimedia Learning in The Cambridge Handbook of Multimedia Learning*, 2nd ed. (United States: Cambridge University Press, 2014), http://molwave.chem.auth.gr/sigalas_edu/files/Multimedia_Learning.pdf.

[72] Richard E Mayer, "Multimedia Learning" (2002): 85–139.

[73] Ibid.

in the post-test after giving the treatment. Furthermore, they stated that a strategy that was used in understanding the story presented in the TikTok video given was by paying attention to the animation and listening to the narration carefully. It was in line with the modality role, as the Mayer explanation above that students' can achieve a deeper understanding when the animation and text are presented in the form of auditorily rather than presented on the screen text only, because in that situation can avoid students' cognitive overload capacity since the students can focus to the animation through their eyes, so that it can raise their visual working memory and focus to the narration through their ears, so that it can raise their auditory working memory simultaneously.[74]

Moreover, the students stated that from that TikTok video they can enrich their vocabulary and the pronunciation simultaneously, so that she can apply the vocabulary in her writing. It occurred since the modality principle allowed the students to view the animation and text which presented with audio narration simultaneously, so that it enables students to catch some vocabularies with the pronunciation simultaneously.

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[74] Ibid.

Vocabulary is the fundamental foundation to improve writing skill; hence, vocabulary is required to be enriched. Thus, from this study it can be indicated that through watching the TikTok video they can enrich their vocabulary mastery. It was supported by the study conducted by Erwani et al using a descriptive qualitative. Then, the study revealed that most students agree that TikTok can enhance their vocabulary since TikTok was used by people worldwide to create videos, so it can assist them to enhance their vocabulary mastery.[75] Furthermore, the study conducted by Naigolan et al using quasi experimental design. They administered pre-test and post test to find the effect of applying the TikTok video in the vocabulary learning. Then, the result indicated that using TikTok video was effective to be used in vocabulary learning.[76] Moreover, a study conducted by Mauriza and Siregar using analysis qualitative research by comparing students who are active TikTok users and students who did not use it in English vocabulary mastery. The result showed that students who are TikTok

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[75] Intan Erwani et al., "The Influence of TikTok in Increasing Vocabulary for Elementary School in SMP 1 Muhammadiyah Banjarbaru," *ELITE Journal: Journal of English Linguistics, Literature, and Education Vol.* 4, no. 1 (2022): 25–40, https://www.elitejournal.org/index.php/ELITE.

[76] N. J Nainggolan, D. B. Manalu, and B.L. Siahaan, "The Effect Of Using TikTok Application On Students' Vocabulary Mastery At SMA Negeri 3 Pematangsiantar," *Jurnal Pendidikan Dan Konseling* Vol. 4, no. 5 (2022): 6226–6233, https://core.ac.uk/download/pdf/322599509.pdf.

users have better vocabulary mastery than students who did not use TikTok.[77]

Therefore, it is possible to infer that TikTok can be applied to enhance students' vocabulary mastery. In this study the students can enrich their vocabulary through watching the story which was presented in the TikTok, so that they can apply the vocabulary in their writing although some students stated that sometimes they did not understand with the meaning of the vocabulary that was presented in the story provided in that TikTok video, but to solve that problem they made notes to the difficult vocabularies and seeked them in the dictionary or asked their friends or asked the researcher, so that they can understand to the story and apply it in their writing. It was seen from the significant improvement in the terms of vocabulary which were scored by the researcher.

Furthermore, the researcher found that the application of the modality principle that applied in the TikTok assisted the student to elaborate the idea while writing a fairy tale story, so that he can organize his writing in accordance with the story presented. He stated that in the pre-test (before taught using TikTok video which applied modality principle) he had a difficulty in elaborating what he had thought in his

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[77] Lara Mauriza and Nurhafni Siregar, "The Analysis of Students' Vocabulary Mastery Who Are Using TikTok Application," *Education & Learning* Vol. 2, no. 2 (2022): 154–158

mind. It can be proven from students' scores after being taught using TikTok video which applied the modality principle.

2. **The Significant Difference Score Between Students Used the Modality Principle of TikTok and Students Who Used Video Animation**

This study was exploring the use of the modality principle of TikTok in facilitating students' writing ability. The pre-test and post-test were administered to measure whether there were any significant difference scores between students who taught using the TikTok video which applied the modality principle (experimental group) and students who taught using the TikTok video which provided animation and text only without any narration (control group) in their writing. Both experimental and control groups acquired equal pre-test and post-test but different in the treatment. Then, the findings of the pre-test indicated that there was no statistically significant difference in the scores obtained by the experimental and control groups which means that both groups had equal writing ability. Meanwhile, the findings of the post-test analysis indicate a statistically significant difference in scores between the experimental and control groups which implies that students who taught using the TikTok video which applied the modality principle acquired higher scores than students who taught using the video which provided animation and text only without any narration.

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The findings indicate the experimental group demonstrated an enhancement in scores from the pre-test to the post-test, while the control group exhibited a decrease in scores during the same period. Therefore, it is possible to infer that the application of TikTok video which applied the modality principle tends to be useful and applicable to enhance students' writing ability.

This study indicates that the application of the modality principle in English learning can assist students to enhance their writing outcomes. This study supported the origin study by Mayer which had conducted an experiment with 12 studies and compared the transfer performance of students who received the presentation with animation and narration (AN) and students who received the presentation with animation and text (AT) in the presentation of lightning process explanation. Then, the result revealed that AN group performed better on solving the problems rather than AT group.[78] It was in line with a study conducted by Saguni which had conducted a study to investigate whether there were any significant distinctions in outcomes throughout students who implemented the modality and contiguity principles and those who did not utilize these principles. The findings indicated that students who had been taught using the modality and spatial contiguity

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[78] Richard E Mayer, "Multimedia Learning" (2002): 120–122.

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principles had better learning outcomes rather than students who did not use those principles. It was classified that students who were taught through the use of narration and animation exhibited better learning outcomes rather than students who taught using integrated text only. Furthermore, the integrated text group had better learning outcomes rather than a separated text group.[79] Hence, It is possible to infer that the utilization of the modality principle is efficient in enhancing the educational achievements of students. From those studies can be found evidence of the modality principle that students can acquire better understanding when the modality principle is applied in the educational process.

Meanwhile, it was argued by two previous studies conducted in the modality principle field. The first is a study conducted by Oberfoell and Correiat, they experimented the utilization of the modality principle in the university students. They separated the participants into two distinct groups which were the animation, printed text and narration (AN) group, and the animation and only printed text (AT) group. The result showed that AT group had a higher performance in the term

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[79] Fatimah Sagu ni, "Prinsip-Prinsip Kognitif Pembelajaran Multimedia : Peran Modality Dan Contiguity Terhadap Peningkatan Hasil Belajar," *Insan,* Vol. 8, no. 3 (2006): 147–157.

retention and transfer tests rather than AN group. In the other word, the AN group did not perform as well as the AT group.[80]

study conducted with Zhu et al which conducted an experiment with 75 students of southeastern university in the United States. This study was conducted with 4 unique treatments which were text-picture present (TP), text-picture absent (TA), narration-picture present (NP), narration-picture absent (NA). The result of the study found that there was no significant difference among those 4 treatments in learning performance, mental effort, and satisfaction. However, there was a significant difference in the visual attention among those 4 conditions. The researchers found that in NP condition students paid more attention to the picture rather than in TP condition where students paid more attention to the text on screen.[81] Therefore, from this study it is possible to infer that the application of the modality principle in the learning process was less effective in the terms of learning performance, mental effort, and satisfaction.

Moreover, the finding of this study also revealed that students who were taught utilizing TikTok video have an improvement score;

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[80] A. Oberfoell and A. Correia, "Understanding the Role of the Modality Principle in Multimedia Learning Environments," *Journal of Computer Assisted Learning* 32, no. 6 (2016): 607–617.

[81] Jiawen Zhu et al., "Investigating How Multimedia and Modality Design Principles Influence Student Learning Performance, Satisfaction, Mental Effort, and Visual Attention," *Journal of Educational Multimedia and Hypermedia* 29, no. 3 (2020): 265–284.

hence, it seemed to be useful in applying TikTok video as a multimedia learning in enhancing students' writing ability. The result of this study was supported by several previous studies such as a study conducted by Salsabil to find out students' perception related to the application of TikTok in students' writing procedure text. The result of this study revealed that students had positive perceptions toward the application of TikTok video in writing procedure text. Thus, it can be concluded that the use of TikTok video is applicable in learning writing procedure text.[82] It was similar to a study conducted by Syaifuddin et al who found out the perceptions of students about the application of TikTok in writing descriptive text. The result showed that the students gave positive opinions about using TikTok to learn how to write descriptive texts. Researchers found that the use of TikTok in learning writing descriptive text made students pay more attention and participated in the learning writing descriptive text, and students agreed that the application of TikTok in the learning writing descriptive text could foster their motivation.[83] Therefore, the result of this study tends to be

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[82] Putri Syahla Salsabila, "Students' Perception Toward the Use of TikTok Video in Learning Writing Procedure Text at Senior High School 2 Rambah Hilir" (2022): 1–62, https://www.who.int/news-room/fact-sheets/detail/autism-spectrum-disorders.

[83] Syaifuddin. Nabilah. et Al., "Students' Perception toward the Use of TikTok Video in Learning Writing Descriptive Text at MAN 1 Gresik," *Journal of Research on English and Language Learning (J-REaLL)* Vol.2 No.1 (2021): 16–21.

the usefulness of TikTok as a multimedia learning application which can be applied in enhancing students' writing ability.

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CHAPTER V

CONCLUSION AND SUGGESTION

This chapter presents the conclusion of the study and suggestions for relevant people particularly about the use of the modality principle of TikTok to facilitate students' writing ability. The following are the conclusions and the suggestions.

A. Conclusion

This study conducted to investigate the modality principle of TikTok in facilitating students' writing ability and to measure whether any significant difference in the writing proficiency between students who use a modality principle of TikTok and students who did not use it.

The first finding of this study found that TikTok can facilitate students' writing ability. There are two aspects of why TikTok can facilitate students' writing ability, namely providing animation and text with simultaneous narration. The animation has come to the students' memory processing through their eyes and the narration has come to the students' memory processing through their ears simultaneously. Moreover, students felt that through the animation provided can assist them in understanding the story, they can view the occurrence and the situation of the story, and through the text which was

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presented with narration simultaneously can assist them in improving their vocabulary mastery with the correct spelling and pronunciation, so that they felt more understanding of the story then they can write the story well.

Furthermore, the finding from the second research question indicates that a significant difference in the scores was observed between students who implemented TikTok in their writing learning process and those who did not. The finding indicated that the group of experimentalists acquired higher scores after taught using TikTok video which applied the modality principle compared to the control group who taught using the video which provided animation and text only without any narration. It is possible to infer that the application of TikTok video which applied the modality principle helped students' writing better compared with the students who did not use it.

This study demonstrates the usefulness of the application of the modality principle of TikTok to facilitate students' writing ability. It was evidenced from the statistical calculation which showed the significance difference score in the post-test after treatment between the experimental and the control group. The result of the statistical calculation found that there were improvement scores acquired by the experimental group in the post test. Meanwhile, the control group acquired the degradation scores in the post test. Therefore, it can be concluded that the application of the modality principle of TikTok was useful and can be applied to facilitate students' writing ability.

However, there are a lot of unrealized potentials that should be taken into consideration in further research. Testing students' abilities such as speaking, reading, and listening using the TikTok as multimedia learning can be a target for future research.

B. Suggestion

Drawing from the recommendations and constraints of this study, the researcher proffers a number of suggestions for the future researchers and the English teachers as follows:

1. For Future Researchers

The study concentrated on one of the multimedia learning principles, namely the modality principles employed in TikTok to support students' writing ability. In addition, this study only focused on the while writing activity. So, for future researchers who want to conduct a research with the same topic as this research, it is preferable for future researchers to broaden the topic by using writing processes like planning, drafting, crafting, and evaluating or by using other skills like listening, reading, and speaking.

2. For English Teachers

The teacher should use the media that students are familiar with, so that it can make students enjoyable in the learning, then it can engage students in the process of learning English, particularly in the study of writing. Hence, through this study the teacher can consider that the

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application of TikTok which is provided with the modality principle is
useful to facilitate students' writing ability.

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APPENDIXES

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