CHAPTER II
REVIEW OF RELATED LITERATURE

This chapter presents a review of theories related to the research topics including previous study, the importance of e-learning in education, the use of online learning tutoring, perception, Ruang Guru, Brain Academy, and Zenius Education.

A. The Importance of E-Learning in Education

Because of advancements in information and communication technology, an e-learning system that can be utilized successfully as a teaching and learning technique has been developed. E-learning is especially significant since it may give education at a cheaper cost than traditional venues. Furthermore, Internet availability in Indonesia has gradually increased in recent years.

E-learning is learning that uses electronic technologies to access the academic curriculum outside the traditional classroom. It can refer to any course, program or degree offered entirely online.[1] There are many terms used to describe learning that is delivered online, via the internet, ranging from distance learning to computerized electronic learning, online learning, or internet learning, among others.

E-learning is a relatively new technique of learning that takes use of the internet. Computer hardware and software, network technologies such as local area networks and wide area networks, and telecommunications technology such as radio, telephone, and satellite are all examples of information technology facilities that are available to help the teaching and learning process be more effective. Distance learning is a component of internet-based e-learning activities. It is a learning process in which lecturers and students do not

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[1] North Carolina E-Learning Resources. http://www.elearningnc.gov/ accessed on Sunday 7th June 2020, at 3.55 p.m.

physically exist in the same classroom at the same time, implying that the teaching and learning process takes place remotely or not at all.

It is important to note that e-learning differs from distance learning in that the former is interactive and can be delivered through a variety of synchronous and asynchronous methods while the latter is non-interactive (i.e., there is not much interaction between the learner and the professor and between the students) and can be delivered via the internet. The purpose of e-learning is to increase the absorption of students for the material taught, increase the active participation of students, improve independent learning skills, and improve the quality of learning materials. It is hoped that it can stimulate the growth of innovations of students by their respective fields.

This enables continuous learning, meaning students can study at any time, without being limited by meeting time. The various opportunities mentioned above still share challenges, both from the readiness of information technology infrastructure, society, and regulations that support the sustainability of e-learning. It was also stated briefly about the opportunities and challenges of e-learning media, such as on voice mail, audiotape, audio conferencing, e-mail, online chat; web-based education, videotape, satellite video conferencing, and cable or broadcast television.[2]

In general, there are two online teaching models, according to Dragan and Behr those are asynchronous and synchronous. The asynchronous model, students' study at their own speed, review class notes and content, and ask questions of the teacher whenever they have free time. Through group discussions, email, and chat, students can interact with both teachers and other students. Students pick up knowledge according to their workload and learning speed. Typically, only tests and assignments are planned to be completed by the deadline. In contrast, students in the synchronous model learn in virtual

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[2]file:///C:/Users/HP/Downloads/REINFORCEMENT%20OF%20MATERIAL%20USING%20THE%20APPLICATION%20RUANG%20GURU%20(2)%20(1).pdf accessed on Sunday 14th June 2020, at 15.55.

classrooms in real time, much like in traditional classrooms. The instructor guides the lesson by presenting slideshows or allowing students to watch the instructor in real time via an online video.[3]

The synchronous model also makes use of chat features, which let students and teachers communicate with one another and use private channels to get assistance without interfering with class. However, the synchronous model is less common than the asynchronous model since it requires students to follow a set schedule, just like in traditional classrooms. The development of distant learning systems is called online learning, or e-learning. The foundation of distance education is often the students' and teachers' separation in both location and time. Utilizing learning resources that are methodically planned and created, maintaining intermittent media-based connection between students, tutors, and educational institutions, and closely supervising and monitoring an educational institution.

According to Hashemi the two parts of the remote education system are the remote teaching system and the remote learning system (distance teaching). On the other hand, the organizational structure, the teacher, and the teaching process are given more weight in the remote learning system. The learning process and students are given more importance in the remote learning system (learning-centered). The distance education system, in contrast, focuses on every aspect of the circumstance, including the instructors' and students' learning processes as well as the organizational structure and teaching methodology.[4]

According to Moran Flexible learning programs are a new kind of learning environment that mix information technology and online learning techniques with traditional classroom learning approaches. Belawati and Zuhairi suggest that further research should be done on this flexible learning

[3] Dragan, R. V., & BEHR, M. (2001). Blackboard. *PC Magazine*, *20*(13), 172-173.
[4] Khorshidpour, Z., Hashemi, S., & Hamzeh, A. (2011). CBDL: Context-based distance learning for categorical attributes. *International Journal of Intelligent Systems*, *26*(11), 1076-1100.

program since it presents an urgent difficulty that has to be overcome in order to make predictions about the future.[5]

B. The Use of Online Learning Tutoring

According to Artz, Barnett, and Scopetta, online tutoring began in 2001 as a way to increase outreach and enhance the face-to-face tutoring program. Online learning tutoring is the process of tutoring in an online, virtual, or networked, environment, in which teachers and learners participate from separate physical locations. And for students, Artz exclaims that "online tutoring was a natural outgrowth of the tools they were already using." In addition to technology, computers are being used in daily life, thus Artz documented that computers were being used productively for modern teaching of composition, counting online peer exchanges. These works envisioned electronic networks, web authoring tools, and intranet and internet connections engendering collaborative learning environments.[6]

The main advantage of private one-to-one tutoring was described by Benjamin Bloom (educator and psychologist) in 1984 in two sigma's problem. The effect described by Bloom appears to carry over into online learning tutoring, although there is limited research to support this conclusion. A rare study comparing the performance of students with access to online learning tutoring with that of students who did not have access to online learning tutoring remarked on the apparent tendency of the availability of online tutoring appeared to encourage students to stay in a course because many students can already access the internet, the prospect of online tutoring business will be very promising.

The hiring, development, and support of qualified personnel is also needed to create an effective online program. Tutors must be educated in the

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[5] Belawati, T., & Zuhairi, A. (2007). The practice of a quality assurance system in open and distance learning: A case study at Universitas Terbuka Indonesia (The Indonesia Open University). *The International Review of Research in Open and Distributed Learning*, *8*(1).

[6] Arzt, J., Barnett, K. E., & Scoppetta, J. (2009). Online tutoring: A symbiotic relationship with writing across the curriculum initiatives. *Across the Disciplines: Interdisciplinary Perspectives on Language, Learning, and Academic Writing*, *6*(2), 1-16.

use of technology, subject matter, and tutoring strategies, such as building a welcoming and engaging online environment for students. They can learn whenever they want whenever they bring a laptop or smartphone. Students can get online instruction as long as they have adequate devices and internet connections. For now, a popular e-learning system or platform for students in Indonesia is Ruang Guru, Brain Academy, Zenius Education, and Quipper. Online learning tutoring itself is a paid platform for students from elementary to high school. The platform e-learning that is very much even has been popular and accessible it is free, but students in Indonesia prefer apps from the Ruang Guru that pay to be accessed.

C. Definition of Perception

The interpretation of what is sensed is called perception. As an example, auditory information concerning physical events could be perceived as auditory music. In summary, perception is the process by which information is comprehended via the sense organs of humans.[7] The most reliable source of information on contingent facts is perception. Since the sensory nerve system is required to register any information about events in the world, perception is a biological mechanism that allows us to be perceived.[8]

Perception is a conscious experience that occurs as a result of sensory stimuli. Because perception is something you experience all the time, understanding how it works is fascinating in and of itself. As you will find when anything Nervous system activity produces what you see, hear, taste, feel, or smell, as you will discover when studying perception.[9]

Suratno and Aydawati define perception as "the method by which an individual's perception of something is shaped by their sensory response to a

[7] Santrock, J. W., Mondloch, C. J., & Mackenzie-Thompson, A. (2014). Essentials of life-span development.

[8] Blake, R., & Shiffrar, M. (2007). Perception of human motion. *Annu. Rev. Psychol.*, *58*, 47-73.

[9] Goldstein, E. B. (Ed.). (2008). *Blackwell handbook of sensation and perception*. John Wiley & Sons.

stimuli, leading to an interpretation or identification of the experienced objects." Perception gives things a specific meaning by linking external stimuli with observed objects based on the individual's experience. Perception is a method of organizing and interpreting inputs in order to give perceived objects new meaning. Perception and beliefs are mutually incompatible since something can only be considered accurate if it is perceived to be correct.[10]

The process by which we use our five senses to acquire information in an attempt to make sense of the world around us is called perception. Perception, in this sense, refers to the experience of an item or a sequence of events. Our perception of information is called vision. This narrative may be compared to our prior encounters and our perceptions and understanding of things through our senses.

Perception refers to the process of interpreting and organizing senses in order to form a meaningful perception of the world, According to Su'adah, perception is the process by which humans are exposed to stimuli and then interpret them meaningfully based on prior experiences. Perception is the process of processing sensory data in a meaningful way.[11].

Perception, according to the above theory, is the act of compiling sensory information in order to recognize and interpret it. To provide a broad overview and understanding of the environment. There are three types of time orientation perception: past, present, and last future. And perception is a method of recognizing information that is compared to previously stored memories in a person's brain.

a. **Factors of Perception**

Your audience's decision makers assess you and your reliability using three senses: sight, hearing, and touch. That is, how they see, hear, and feel

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[10] Firman, A. M. (2022). *Teachers' and students' perception on the use of digital dictionary in english classroom at Madrasah Aliyah Negeri 2 Probolinggo* (Doctoral dissertation, UIN KH Achmad Siddiq Jember).

[11] Su'adah, A. (2015). Students' perception toward the use of Edmodo in teaching and learning process in Jambi University. 1-61.

about you impacts their perception of you. These are the Visual, Vocal/Verbal, and Relational Perception Factors.

1. The Visual Factor assesses how you are initially seen by the audience. Enhancing your executive presence, appearance, grooming, body language, attire, and surroundings is the goal. You have to be deliberate and careful about what decision makers view if you want to cultivate a favorable impression in their minds.

2. The vocal/verbal factor, or how your audience perceives you, comes next. Using persuasive logic into your presentation structure and improving your voice tone, vocal variation, and use of compelling words and phrases are the goals in this area. The intention is for every word and sentence you speak to support the audience's impression of you as a knowledgeable, capable, and well-prepared person.

3. The Relational Factor is founded on the third sense, touch. It's about how your audience views you. Do you "touch" them in a good and meaningful way with your message? This encompasses both physical touch (such as a firm handshake) and emotional touch (such as establishing rapport and connecting with your audience). Your audience's attention, your personalized message, your warm approach, your sense of humor, and your attention to detail all help build trust and emotional appeal.[12]

b. The Perception Process

Distinguishing objects from their surrounds is one of the most fundamental perception processes. So, the brain as much as our eyes determine what we see, and the processes involved seem to be designed to interpret our sensory inputs whenever possible.

Sensory inputs are sent to the brain. The brain then uses the existing information to construct a perception model.

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[12] Price, D. (2012). *Well said: presentations and conversations that get results* (Vol. 35, No. 1). Amacom.

This process is ongoing, with our perceptions constantly being refined and updated. It is apparent from the various processes involved that they are intended to read our sensed inputs whenever possible. The sensory input is transmitted to the brain. The brain draws up a perception model based on the existing information when there are unclear or brief relevant signals, or when there is an ambiguous figure or illusion. Usually, all of this occurs with us only aware of the misconception that we are in direct contact with the outside world. The conclusions we get from the integration of sensory data and past knowledge are what give rise to perception. This model makes the assumption that our perception is influenced by our prior knowledge. Understanding what we see comes so easily and readily that it is difficult to think of it as a significant accomplishment.

Focusing on one sense at a time makes understanding the perception process simpler, but most of the time the brain must process simultaneous input from the several sensory modalities (sight and hearing; sight, touch, smell, and taste, and so forth). Sources include information from the sense organs and bodily sensation, indicating that emotional states and bodily feelings are also significant components in the process of perception.[13] Furthermore, three major components in the perception process were classified. They are as follows:

1. **Selection**

   Selective organs are those whose input originates from the outside world and are drawn to it.

2. **Interpretation**

   Organizing information to make it meaningful to someone else is the act of interpretation. Numerous characteristics, such as motivation, personality, IQ, and prior experiences, have an impact on the interpretation.

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[13] Butler, G., & McManus, F. (2014). *Psychology: A very short introduction*. OUP Oxford.

3. Interpretation and Perception

The act of someone becomes apparent based on their perception and interpretation. Hence, choosing and interpreting the data that sensory organs receive constitutes the perception process.[14]

c. Perception and Learning

Perception and learning interrelated. Perception is defined as the process by which someone organizes and interprets patterns of stimuli in environment.[15] Then, learning is defined as a relatively permanent change in behavior due to experience.[16] It refers to personal experience of the world. Hence, when one perceives something through his or her environment, her or she then learns it and somehow puts it into practice.

In education psychology, a favorable perception results in happiness, while a negative perception results in unhappiness. Happiness and sadness have an impact on someone's desire and action, including learners' desire and action in learning. It means that when students have a favorable perception, they will learn the lesson more readily because their mind is joyful while studying. Students that have a bad perception will find the lesson dull. Because perceptions play a significant part in education, teachers must accommodate favorable perceptions to students in order to enhance happiness, which leads to students' motivation and action in learning.

d. Kinds of Perception

1) Looking at the perception of the students, there are two types of opinions: positive and negative. The self-awareness you need to work on yourself, your strengths, and your body in all your actions, thoughts, and actions. We also love what other people do. These

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[14] Alex Sobur, *Psikologi Umum,* (Bandung: Pustaka Setia, 2003), p. 447.

[15] M. Kubra Kaymaz, Mine Sungur, "The Effects of Knowledge Acquisition Levels on Perception in Art Education", *Anadolu Journal of Education Sciences International. Art Education Spial Issue, November 2015,* p. 268.

[16] Raygor, *The Science of Psychology,* (New York: Harcourt College Publishers, 2005), p.26.

ideas, acquired by each person, influence the attitudes that each person takes throughout his life.[17]

2) Positive perception is a precious gift that offers self-confidence and the ability to keep up with the rest of the world, survive crises, and focus on things other than oneself. It enhances connection development and charitable giving.

1) Negative perception is inclined to put their attention on satisfying their personal needs and demonstrating their value to others.

D. Perceived Usefulness and Ease of Use

This technological acceptance model (TAM) derived on the theory of reasoned action (TRA) was proposed by Venkatesh, Davis, Alharbi, and Drew. For them, perceived advantages and perceived ease of use are two external elements that impact consumer adoption technology in general and in particular. Both influence user behavioral intentions.[18]

According to Fishbein and Ajzen stated that TRA is a process of influencing people's actions, which then serves as the theoretical foundation underlying TAM.[19] Moreover, research conducted by Lee and Cheon stated that the more intent a consumer has to adopt new technology, the more often and in what quantities the technology is really used. Perceived usefulness, then, is only the opinion of somebody who thinks a new technology or product may help them do specific activities more successfully when they utilize it. Stated differently, they assert that the use of new technology is thought to be helpful in accomplishing specific goals. The degree as well as a technology is anticipated to fulfill user performance expectations is known as perceived usefulness theory.

This demonstrates that people have a more favorable opinion of a technology the more benefits they perceive it to offer. On the other side,

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[17] Catherine, E. B., Dunn, A. M., Brady, M. A., Starr, N. B., & Blosser, C. (2009). Pediatric Primary Care Fift Edition (United States of America: Library of Congress Cataloging.
[18] Alharbi, S., & Drew, S. (2014). Mobile learning-system usage: Scale development and empirical tests. *Editorial Preface*, *3*(11), 10.
[19] Fishbein, M. (2009). An integrative model for behavioral prediction and its application to health promotion.

perceived ease of use refers to how much a person thinks a new product or piece of technology will be simple to use. New technology has to be simple to use and understand in order to support this idea. Furthermore, users are more likely to want to utilize a technology and have a good opinion toward it if it is simple to use.

E. Ruang Guru

Ruang Guru was established in April 2014 by Adamas Belva S. D. and Muhammad Iman Usman to help make it easier for students to find guidance teachers in cyberspace. Ruang Guru is a startup company that moves and focuses on the field of education based in Jakarta. Ruang Guru is the first complete online learning app to solve all the difficulties of learning starting the national curriculum is used at the elementary, junior, and high school levels, and it is carefully prepared by the best and most experienced instructors (Master Teacher).[20]

In August of the same year, more than a thousand registered teachers. In February 2016, the teacher room introduced a version of the Android app and the full version in April. Ruang Guru has a technology-based education provider company based on a learning management system that facilitates various stakeholders in the education sector namely teachers, students, central and local governments as well as parents of students to support each other on each digital platform.

The duration of the subscription plan in the Ruang Guru is available from 1 month to 2 years. This is the most complete solution in one application that has been trusted by more than 15 million students and more than 300,000 teachers in Indonesia.Not all quality courses have the same curriculum reference as schools. Especially now that education in Indonesia uses 3 main curriculums, namely the Education Unit Level Curriculum (KTSP), the 2013 Curriculum, and the revised 2013 Curriculum. So, before

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[20] https://bimbel.ruangguru.com/ accessed on Sunday 4th May 2020, at 06.30 a.m.

choosing tutoring, it is necessary to research in advance so that it can be adjusted to the references used at school.

Some excellent features such as Ruang Uji, Ruang Latihan, Ruang Video, Ruang Les, Ruang Les Online, Digital Boot Camp dan Edumail and enable students to upgrade their learning abilities so that they are expected to achieve the desired results.[21] Ruang Guru also provides content through curriculums. Ruang Guru provides the following services.[22]

a. **Ruang Belajar**

The level of satisfaction of the students in choosing online guidance in the study room is very high. The study room is an interesting and enjoyable place compared to others. It can help the students learn about understanding the concept of learning to help the students prepare before the exam. In the study room, there are complete learning video animates, exercises questions with discussion, and summaries. Not only that but also the students' score will increase after 3 months of subscription.
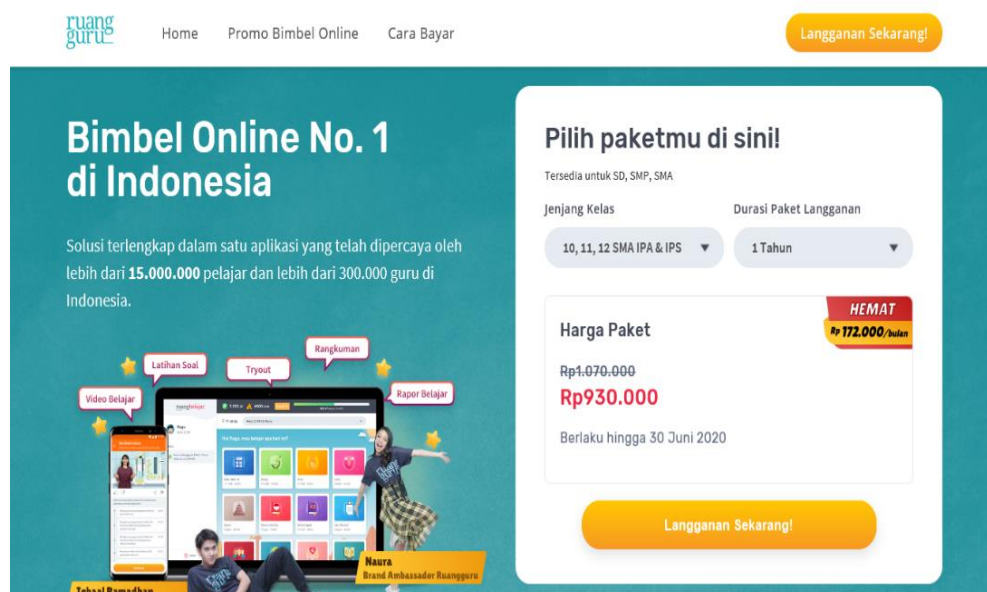
Picture 2.1 Ruang Guru

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[21] Samuel, Gideon, "Peran Media Bimbingan Belajar Online "Ruang Guru" Dalam Pembelajaran Ipa Bagi Siswa Smp dan Sma Masa Kini". *Volume 11,* Nomor 2, Juli 2018, 167-182.
[22] https://ruangguru.com

b. Ruang Belajar

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c. Digital Boot Camp

Interactive learning group with live streaming, standby tutor, exclusive try-out periodic, free counseling, and various other interesting features. The students can discuss the deeper subject matter, get tips & tricks, FAQs, and various other fun activities.

d. Online Tutoring Room

This will help the students discuss questions and understand lessons via live chat. The students can directly connect with the best tutors through online tutoring. The tutor will deliver the solution via live chat for 30 minutes. Thus, Ruang Guru in education is a place where everyone can find and provide information, discuss and share thoughts about learning problems between one or more people just by using a smartphone and laptop connected to the internet. Ruang Guru can add insight into various sciences using interesting learning to increase interest in learning.

Ruang Guru makes students learn more effectively and efficiently, it is different if students learn in the classroom and are taught by the teacher, the teacher who teaches certain material in a learning process will only repeat several times the material taught, but if students learn through tutoring Ruang Guru students can repeat certain material to understand so students are more flexible in learning material.

The purpose of Ruang Guru Application is to first improve the quality of teachers by creating jobs and additional income for teachers in Indonesia. The second goal is to improve the quality of teachers so that the

quality of education in Indonesia will also be better. The third objective is to introduce that technology can help students, teachers, and parents to carry out their activities to be more effective and efficient in meeting academic information needs because they have implemented a Learning Management System (LMS).

Ruang Guru supports the Government of Indonesia in its efforts to advance the national education system. By the end of January 2018, Ruang Guru, now a well-established business with 254 staff has attracted more than seven million registered students and reached 900,000 monthly active users.[23]

Conventional Tutoring	Ruang Guru
The same learning materials for every student in the class	Customizing learning material the needs of each student
Already determined and limited Time	At any time, can be repeated
Must come to the place	Anywhere
Total up to 40 people/class, difficult to concentrate	Learning to feel private 1: 1, free of distractions
Taught once and adjusting Schedule	Can be repeated and downloaded according to the needs
Boring	With animated learning, videos taught the best Master Teacher
A practice book is a matter of need brought every lesson	Hundreds of thousands of practice questions that can be accessed on mobile (paperless)

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[23]https://www.gsma.com/mobilefordevelopment/wpcontent/uploads/2018/05/RuangguruAccelerating-Indonesia%E2%80%99s-educational-outcomes.pdf accessed on Sunday 14th June 2020, at 10.50 a.m.

Table 2.1 Differences between Conventional Tutoring and Ruang Guru

1. **Learning Report**

   Track learning progress with learning reports that are periodically delivered to parents.

2. **Smart Recommendation**

   Automatically detects weaknesses and recommends learning materials according to the needs.

3. **Ruang Guru Adventure**

   Collect points by learning in the app and redeem a variety of exciting digital items.

4. **Social Learning**

   Interact and discuss school lessons with other users in the application.

F. **Brain Academy**

   Brain Academy is one of Ruang Guru's products that is still considered popular new. Brain Academy was launched by PT. Ruang Raya Indonesia in 2018 with the main aim of creating innovative places for student tutoring which combines offline and online learning. Brain Academy became attention of students and parents because of the learning system in the classroom combines direct learning and learning via gadgets already prepared in class.[24]

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[24] https://kc.umn.ac.id/id/eprint/17556/4/BAB_II.pdf. Accessed on Sunday 14th June 2020, at 11.45 a.m.
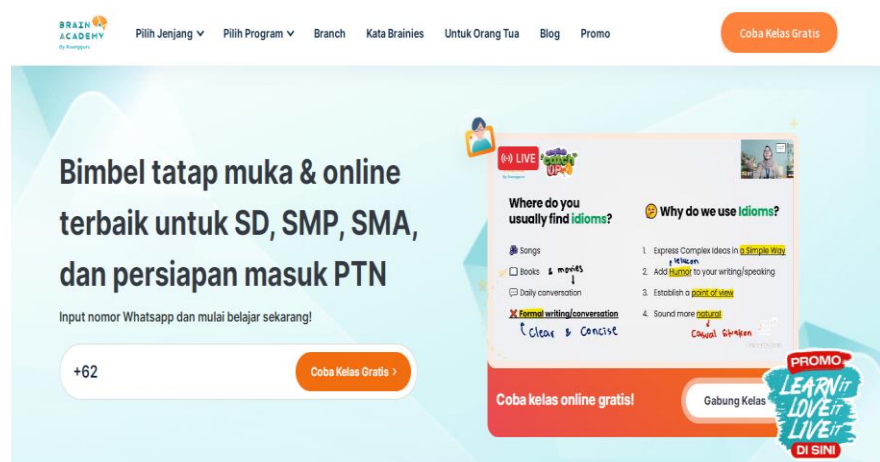
Picture 2.2 Brain Academy

Apart from the combination of offline and online learning that is used advantages, Brain Academy also provides many supporting facilities used as a selling point to compete with other tutoring bodies in the area Indonesia, these facilities include free study room access for a year to support student learning Brain Academy, PR Clinic, Consultation.

Education, Question Sharing Groups, Hobby Groups, and Personal Development classes for develop students' soft skills such as teamwork, public speaking, leadership, critical thinking and others. In terms of disseminating information product, Brain Academy uses a website platform that can be accessed at Brain Academy.id for Brain Academy Online, and use the place directly in the form of a tutoring shop for Brain Academy Offline.

a. Intensive PR Clinic

Individual students can schedule a consultation session once a week in the form of an online discussion (video conference call) to discuss homework (PR) and exam preparation questions with Star Master Teachers via the Zoom application.

b. Live Teaching Interactive Class

Students are in a webinar-like situation, together with other class participants, where the Star Master Teacher discusses state university entrance selection exam material and school subjects such as

Mathematics, Economics, Physics, Chemistry, English and others, using the live teaching method via the Zoom application. Students can schedule Interactive Live Teaching Classes 3 to 6 times a week with a class duration of 90 minutes.

c. Direct Educational Consultation

Individual students are free to schedule consultation sessions at any time in the form of online discussions (video conference calls) regarding study strategies, choice of major, and other supporting topics with Master Teachers, Guardian Teachers and Brain Academy educational counselors, via the Zoom application.

d. Motivational Classes

Students are in a webinar-like situation, together with other class participants, where for 120 minutes they receive material to their skills and soft skills, such as how to speak in public and create interesting creative content, from facilitators using the live teaching method via the Zoom application.

The entire series of Brain Academy Online facilities is valid every day from Monday to Friday for one school year with a learning schedule that is adjusted based on grade level. Elementary students will get a study schedule in the afternoon, while middle and high school students will get a study schedule from afternoon to evening.

Apart from these facilities, students who register at Brain Academy Online will also get access to hundreds of thousands of learning videos, questions, summaries, info graphics and quizzes in the Ruang Belajar feature in the Ruang Guru learning application.[25]

G. Zenius Education

Zenius Education is an online learning platform that gives Indonesian students new ways of learning by providing them with fun yet effective

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[25]https://wartakota.tribunnews.com/2020/07/03/brain-academy-online-dari-ruangguru-permudah-interaksi-siswa-dan-guru-selama-school-from-home?page=2. Accessed on Thursday 30th November 2023, at 21.10 p.m.

educational material. In the Zenius Education application, in addition, to live courses, there are also questions that students can answer.[26]

Zenius Education is a technology-based education company from Indonesia.[27] Zenius provides educational access services in Indonesian language video format which is presented online via the website (zenius.net) and mobile phone applications. As of December 2020, Zenius had more than 16 million users.[28] By emphasizing integrated scientific knowledge and critical, logical, and rational thinking for all Indonesian students, Zenius is a kind of educational revolution that is now taking place in Indonesia.[29]Zenius aspires to produce a generation of Indonesians who understand science and love learning, rather than becoming a generation of memorizers.[30]

Zenius was founded in 2004 by Sabda PS, Vishnu Subekti, and Medy Suharta. [31]Initially, Zenius was established as an offline study guide. In 2005, Zenius began launching learning materials in CD form. This learning material is specifically for high school students in preparation for entering SPMB.[32] In 2007, Zenius Education was officially established and incorporated as a limited liability company.

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[26] Nurindah & Ekardilla. 2022. *The Effect of Using Zenius Education-Based Learning Media On Student Learning Outcomes In Indonesian Language Subjects*. Indonesian Journal of Educational Technology. 01(02). 103-113.

[27] https://www.techinasia.com/zenius-indonesia-education-videos-online. Accessed on Tuesday 21st November 2023, at 15.50 p.m.
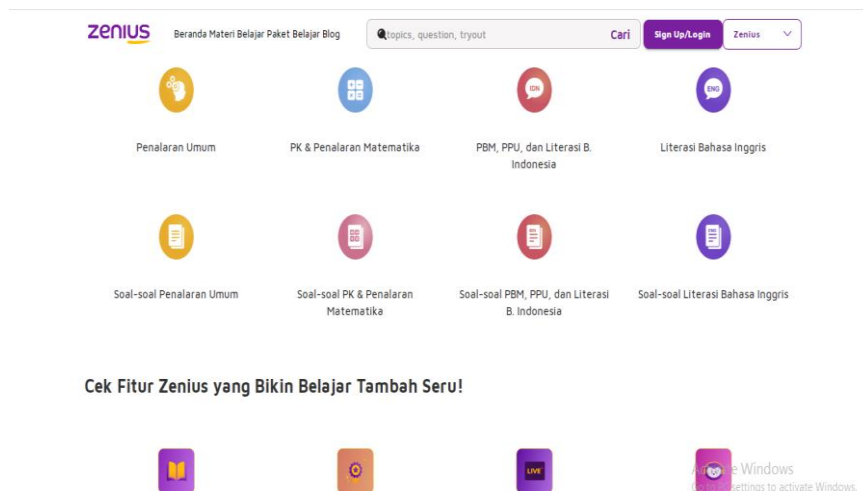
[28]https://teknologi.bisnis.com/read/20210107/266/1340070/zenius-ingin-pimpin-pasar-edutech-siapkan-teknologi-ai. Accessed on Tuesday 21st November 2023, at 15.48 p.m.

[29]https://dailysocial.id/post/zenius-revolusi-belajar. Accessed on Tuesday 21st November 2023, at 15.48 p.m.

[30]https://ziliun.com/sabda-dan-zenius-revolusi-pendidikan-dengan-bimbel-online-interaktif/. Accessed on Tuesday 21st November 2023, at 15.52 p.m.

[31]https://www.itworks.id/25024/zenius-raih-pendanaan-seri-a-sebesar-20-juta-dolar-as.html. Accessed on Monday 27th November 20213, at 13.28 p.m.

[32] https://www.techinasia.com/zenius-indonesia-education-videos-online. Accessed on Monday 27th November 20213, at 13.30 p.m.

Picture 2.3 Zenius Education

Then in 2010, Zenius launched the first learning site in Indonesia through Zenius.net. In July 2019, all Zenius learning materials and features can be accessed via the Zenius App which is available on the Play Store and App Store.[33]

In order to assist the Indonesian government in realizing non-face-to-face contact in the midst of the pandemic, in December 2019, Zenius made more than 80,000 video learning materials free.[34] Until now, Zenius still offers more than 100,000 study material content that can be accessed for free.

Zenius officially acquired Primagama through the signing of an agreement in early 2022.[35] The Primagama brand has now changed to "New Primagama Powered by Zenius" which coincides with Primagama's 40th anniversary.[36] This acquisition aims to strengthen Zenius' learning ecosystem in providing a greater technological impact in education through

[33]https://www.suara.com/tekno/2019/07/18/182133/zenius-app-revolusi-belajar-kini-dalam-genggaman. Accessed on Monday 27th November 20213, at 13.36 p.m.
[34]https://www.fortuneidn.com/business/desy/zenius-resmi-akuisisi-primagama-fokus-garap-bimbel-hybrid. Accessed on Monday 27th November 20213, at 13.57 p.m.
[35]https://dailysocial.id/post/zenius-akuisisi-primagama. Accessed on Monday 27th November 20213, at 16.08 p.m.
[36]https://www.suara.com/tekno/2022/03/11/122809/nama-primagama-berubah-di-ulang-tahun-ke-40-usai-diakuisisi-zenius. Accessed on Monday 27th November 20213, at 16.11 p.m.

a hybrid learning model, with the help of Primagama's experience and offline reach.[37]

Zenius adopts artificial intelligence technology to provide adaptive learning features.[38] The AI technology that has been developed by Zenius is placed in two features, namely:

1. **ZenCore**: a feature that provides adaptive learning and training materials to develop fundamental skills,[39] namely mathematics, verbal logic, and English. Adaptive learning is a method specifically designed according to students' abilities so that it is more relevant to students' weaknesses and strengths. Through the ZenCore feature, Zenius provides more than 135 thousand quizzes up to level 100.

2. **ZenBot:** just by uploading a photo of the question ZenBot can provide answers accompanied by videos of the appropriate study material. With the help of AI, discussing questions becomes easier and more in-depth, so it can help students improve their abilities.[40] ZenBot can be accessed via the Zenius application or WhatsApp for 24 hours.[41]

H. Quipper

Quipper is an education technology committed that offers K–12 students in Japan, Indonesia, the Philippines, and Mexico e-learning, coaching, tutoring, and assessment services. An online learning management system (LMS) is the company's main offering, and each of the nations in which it conducts business uses it differently. In each of countries where it conducts business, the Learning Management System (LMS) is enhanced with extra services for educators,

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[37]https://tekno.tempo.co/read/1563961/zenius-dan-primagama-jalin-kerja-sama-untuk-pembelajaran-hybrid/. Accessed on Monday 27th November 20213, at 16.16 p.m.
[38]https://teknologi.bisnis.com/read/20210823/266/1432784/zenius-siap-lakukan-digitalisasi-guru-begini-caranya. Accessed on Tuesday 28th November 2023, at 17.31 p.m.
[39]https://uzone.id/aplikasi-edutech-zenius-terapkan-pembelajaran-adaptif-yang-lagi-tren. Accessed on Tuesday 28th November 2023, at 17.31 p.m.
[40]https://www.beritasatu.com/news/765631/zenius-hadirkan-sistem-belajar-online-yang-fokus-pada-penalaran. Accessed on Tuesday 28th November 2023, at 17.43 p.m.
[41]https://www.pikiran-rakyat.com/teknologi/pr-011835843/tak-mustahil-pecahkan-soal-matematika-dengan-kecerdasan-buatan. Accessed on Tuesday 28th November 2023, at 17.44 p.m.

learners, school administrators, and other relevant parties, in addition to locally produced material.

Picture 2.4 Quipper

- **Quipper School** is a learning management system for elementary, middle, and high schools. The two main components of the platform are Q-Learn and Q-Link. While Q-Link is the teacher portal where teachers may check student performance data and submit assignments, Q-Learn is the student site where students can access their classes and assignments. Additionally, educators have access to a third site called Q-develop, where they may create and share their own the educational program.

- **Quipper Video** is an online learning program that offers junior high and high school students' video lectures via streaming in order to assist them get ready for examinations, the national exam, and university admission tests. Using their smart devices, students may see movies, do quizzes, and download notes on Quipper Video.

- **Quipper Video Masterclass**, which has two main features: ask Tutor and online guidance.[42] The first is a live chat service that enables students to ask tutors for help with lessons, while the second provides students with a personal mentor to help them with their learning needs.

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[42]https://www.jawapos.com/teknologi/0193697/quipper-sediakan-fasilitas-bimbel-online-sarana-belajar-kekinian. Accessed on December 2nd 2023, at 22.53 p.m.

- **Quipper Campus**, an online forum for graduating students to discover information about higher education schools. The platform is available for free.[43]

I. Advantages and Disadvantages Online Learning Tutoring

a. Advantages

1. With the LMS, teachers also save time creating question sets/correcting and can focus on teaching.

2. By professional teachers directly, you do not need a lot of money, time, and energy in doing homework because consultation can be done through chat and telephone.

3. Students are given access to free question banks and can engage in independent practice/ learning sets.

4. Students also have access to detailed analytics which allows them to know which topics they are strong, slow, and weak at. This is an effort to create a personalized prescriptive strategy for students to focus their attention on.[44]

5. Tools such as audio or video conferencing, chat, instant messaging, or telephone are used to guide students.

6. Flexible study time can be done anytime and anywhere.

7. The lesson can be repeated because the learning material already exists in the application.

8. There is a summary at the end of each video material

b. Disadvantages

1. The material can't be downloaded.

2. There are lots of annoying pop-ups and promotions on the application.

3. The size of the application data is quite large because of the materials and videos.

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[43]https://techcrunch.com/2012/05/18/quipper-raises-3-6m-for-its-fun-take-on-e-learning/. Accessed on December 2nd 2023, at 22.54 p.m.

[44]http://lppm.ut.ac.id/system/files/artikel/dokumen/files/InnovativeCreative_StephanieHardjo.pdf.

Accessed on Sunday 14th June 2020, at 11.45 a.m.

J. Previous Studies

The researcher used previous studies to help and provide information related to support this research. There are some previous studies related to this study about perceived impact of online learning tutoring. First, Esty stated that online learning tutoring application is liked by many students because it is fun and interesting to be used as one of the learning media or media to fulfill daily academic information.[45] Second, Amalliah revealed that online learning tutoring applications become an alternative way that can help students learn with visual media and languages that are interesting and easy to understand. Parents, in this case, can learn together and also develop children's education, because in this case parents who take part in ordering packages and can also access applications, so they can see the developments and materials provided by online learning tutoring application.[46] Third, Syamsurijal stated that students who have used online learning tutoring are satisfied after using the application in learning the subject matter according to their grade level. Their grades which were previously not good eventually become better. Students find it helpful use online learning tutoring because make it easy for students' access anytime and anywhere.[47] Fourth, Dian and Dewi revealed that online learning tutoring have a high category with the value and level of understanding of the students.[48]

The differences between previous studies with this current study are on the topic being discussed in the study. The researcher focus on perceived impact of online learning tutoring on students' English competence, this research is collected the data from the students who had used online learning tutoring, especially the students who learned English.

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[45] Cahyani, Esty "Analisis Penerimaan Aplikasi Ruang Guru Sebagai Media Pemenuhan Informasi Akademik Siswa SMA Di Kota Surabaya". (Surabaya: UNAIR, 2019), 1-11.

[46] Amalliah, "Peran Aplikasi Ruang Guru Sebagai Media Komunikasi Orang Tua Dan Anak Dalam Memotivasi Belajar*". Jurnal Akrab Juara*, Vol. 4 (3), Agustus 2019, 143-156.

[47] Syamsurijal, "Survey Kepuasan Siswa yang Berlangganan Bimbingan Belajar Online Ruang Guru." *Pernik Jurnal PAUD*, Vol. 2 (1).

[48] Dian Putri, P. and Dewi K. Soedarsono, "The Effect of Using "Ruang Belajar" Featured Toward the Level of Understanding for Students Using Ruang Guru Application." *E-Proceeding of Management*, Vol.6 (2), Agustus 2019, 5176-5186.

Compared to the previous studies, current research is different in terms of the topic of the study. Esty's investigation was about the fulfillment of academic information. Ammaliah's investigation was about the role of teacher space application as a communication media for parents and children in motivating learning. Syamsurijal's investigation was about students' satisfaction on online learning application. Dian and Dewi's investigation were about the effect of using features on the level of understanding.