

PRACTICALITY TEST: INTEGRATED AUGMENTED REALITY IN ENGLISH FOR CULINARY BOOK

Nurzahra Fathiyana Wicaksono¹, Levandra Balti², Anggita Pebrianti³
Pendidikan Vokasional Seni Kuliner, Universitas Muhammadiyah Muara Bungo, Indonesia¹
Pendidikan Bahasa Inggris, Universitas Muhammadiyah Muara Bungo, Indonesia^{2,3}
e-mail: *1nzahrawicaksono@gmail.com, 2levandrabalti@gmail.com, 3anggitafebrianti914@gmail.com

ABSTRAK

Penelitian ini bertujuan untuk menguji kepraktisan penggunaan *Augmented Reality* (AR) yang terintegrasi dalam buku "*English for Culinary*" menggunakan metode kuantitatif deskriptif. Instrumen penelitian berupa angket praktikalitas disebarakan kepada dosen pengampu dan mahasiswa Program Studi Pendidikan Seni Kuliner. Penilaian dilakukan berdasarkan empat indikator utama: *usable* (dapat digunakan), *easy to use* (kemudahan penggunaan), *appealing* (daya tarik), dan *cost-effective* (efisiensi biaya). Hasil uji praktikalitas yang diisi oleh dosen pengampu menunjukkan bahwa indikator *usable* memperoleh nilai 85, *easy to use* 80, *appealing* 86, dan *cost-effective* 84, dengan nilai rata-rata keseluruhan sebesar 83,7, yang tergolong dalam kategori "sangat praktis". Sementara itu, hasil dari mahasiswa menunjukkan nilai untuk indikator *usable* 83, *easy to use* 81, *appealing* 85, dan *cost-effective* 82, dengan rata-rata keseluruhan juga sebesar 83,7, yang masuk dalam kategori "sangat praktis". Berdasarkan hasil tersebut, dapat disimpulkan bahwa integrasi AR dalam buku "*English for Culinary*" sangat praktis untuk digunakan baik oleh dosen maupun mahasiswa dalam proses pembelajaran.

Kata kunci: *Augmented Reality, English For Culinary, Pendidikan Seni Kuliner, Praktikalitas*

ABSTRACT

This research aims to test the practicality of using Augmented Reality (AR) integrated in the book "English for Culinary" using descriptive quantitative methods. The research instrument, a practicality questionnaire, was distributed to lecturers and students of the Culinary Arts Education Study Program. The assessment is carried out based on four main indicators: *usable*, *easy to use*, *appealing*, and *cost-effective*. The results of the practicality test completed by the lecturer showed that the *usable* indicator obtained a score of 85, *easy to use* 80, *appealing* 86, and *cost-effective* 84, with an overall average score of 83.7, which is classified in the "very practical" category. Meanwhile, the results from students showed scores for *usable* indicators of 83, *easy to use* 81, *appealing* 85, and *cost-effective* 82, with an overall average of 83.7, which is in the "very practical" category. Based on these results, it can be concluded that the integration of AR in the book "English for Culinary" is very practical for both lecturers and students in the learning process.

Keywords: *Augmented Reality, English For Culinary, Education Of Art Culinary, Practicality*

INTRODUCTION

The development of digital technology has had a major influence on various aspects of life, including in the field of education. AR was first introduced in 1968 by Ivan Sutherland who created "The Sword of Damocles", a computer-based display system that can project virtual objects into the real world (Clarke, 2014). As computer technology, mobile devices and sensors develop, AR is becoming increasingly advanced and easily accessible to the general public (Sirakaya & Cakmak, 2018). Currently, AR is used in various fields such as education, health, marketing, and entertainment, with various applications and devices specially designed.

Augmented Reality (AR) is a technology that combines the real world with digital

elements in real-time (Prendes et al., 2022). AR is a system that has three characteristics (Díaz-Noguera et al., 2017): (1) combines the real and virtual worlds, (2) is interactive in real-time, and (3) presents information in three dimensions. AR allows users to see the real world with additional visual or audio information presented by devices, such as smartphones, tablets, or AR glasses (Belda-Medina & Calvo-Ferrer, 2022).

One innovation that continues to develop is the use of Augmented Reality (AR) in the learning process (Reinders & Lakarnchu, 2014). AR allows users to integrate virtual elements into the real world interactively, thereby creating a more interesting and effective learning experience (Pratama et al., 2021). This technology has been adapted in

various fields, including in English language teaching, especially in vocational learning contexts such as culinary education.

Some of the benefits of AR in education include increased student engagement, deeper learning, development of cognitive skills, and a more contextual learning experience (Sriadhi et al., 2022). However, there are some challenges, such as the need for specialized hardware and software, as well as costs and training required to use AR effectively. Augmented Reality is a technology that has great potential to improve the quality of learning through interactive and immersive experiences (Chi et al., 2013).

In the context of culinary arts education, good English language skills are one of the important skills that students must master. English for Culinary Purposes (ECP) is a branch of English for Specific Purposes (ESP), which is focused on teaching English used in culinary contexts. ESP is a language learning approach designed to meet the specific needs of students, especially in certain professional or academic fields (Ayutami et al., 2018). ECP aims to equip students with English skills relevant to the culinary industry, including culinary terms, cooking techniques, recipe instructions, as well as communication in the kitchen and food service (Banham, 2023).

English language skills are very important in the global culinary industry (Brilianto et al., 2020). English is often used as a working language in international kitchens, star restaurants, hotels and culinary education institutions. English is a medium of communication between chefs, kitchen staff, managers and customers from various cultural backgrounds. Mastering English allows culinary industry players to communicate more effectively, reduce the risk of misunderstandings, and improve service quality (Sofian & Jufenna, 2020).

The book "English for Culinary" is designed to complete this need, by providing English language materials that are relevant to the culinary world. However, the challenge in teaching English in the vocational field often lies in how to make the material more interesting and easier for students to understand (Abrar et al., 2018). This is where the role of AR becomes significant, because it can present more interactive content and help students understand language concepts better through direct visualization.

This research focuses on testing the practicality of the book "English for Culinary" which is equipped with AR technology. Practicality is one important aspect that determines the successful implementation of

technological innovation in education (Yanto, 2019). This practicality test involves lecturers and students from the Culinary Arts Education Study Program, who provide assessments of various aspects of practicality, such as ease of use, attractiveness, practical benefits and cost efficiency. Through this practical test, it is hoped that a clear picture can be obtained regarding the extent to which the integration of AR in the book supports the learning process (Novaliendry et al., 2022).

This research not only provides an evaluation of the practicality of using AR in culinary English learning, but also contributes to the development of more interactive and innovative learning media in the future.

METHOD

This research uses descriptive quantitative methods (Creswell, 2009) with the aim of testing the practicality of using Augmented Reality (AR) integrated in the book "English for Culinary". The research was conducted at the Culinary Arts Vocational Education Study Program, University of Muhammadiyah Muara Bungo. The participants in this research were 1 lecturer who taught the Professional English course and 11 students. The research instrument used was a practicality questionnaire (Maydiantoro, 2020) which was distributed to lecturers and students. This questionnaire consists of four main indicators, namely: usable, easy to use, appealing, cost effective. Each indicator is measured using a Likert scale with a score range of 1 to 5, where 1 indicates a very low level and 5 indicates a very high level.

RESULT AND DISCUSSION

1. Result

Researchers do try out which were carried out on the book "English for Culinary" based on Augmented Reality (AR). This tryout aims to measure the practicality of the book in more controlled learning conditions before being implemented on a wider scale. In this test, a small number of students and lecturers were involved in using the book in real learning situations, with a focus on how students and lecturers interacted with AR-based content, understanding the material, and improving English language skills in a culinary context. This limited testing also assesses aspects such as the suitability of the material to the curriculum, the responsiveness of AR technology, and user satisfaction with the learning experience offered. The results of this pilot will provide invaluable initial feedback to identify the book's strengths and weaknesses,

as well as determine areas that require improvement before wider implementation.

Practicality Test Results by Lecturer

The researcher explained the results of the practicality test of the book "English for Culinary" based on Augmented Reality (AR) which was collected through a questionnaire filled out by the lecturer who taught the English for Culinary course. This practicality test aims to get direct views from lecturers regarding the extent to which this book can be used in learning, ease of use, attractiveness for users, and cost efficiency. This questionnaire functions as a data collection instrument that measures lecturers' experiences and assessments of books, covering key aspects such as practicality of use, relevance of material to learning needs, as well as the effectiveness of AR technology in increasing student engagement (Bonner & Reinders, 2018). The findings from this test provide valuable insight into ensuring that the book being developed can meet lecturers' expectations and needs for teaching English for Culinary courses in a more interactive and innovative manner.

Table 1. The Result of Practicality Test (Lecturer)

| No | Indicator | Score | Category |
|----------------------|-----------------------|-------------|-----------------------|
| 1 | <i>Usable</i> | 85 | Very Practical |
| 2 | <i>Easy to use</i> | 80 | Very Practical |
| 3 | <i>Appealing</i> | 86 | Very Practical |
| 4 | <i>Cost effective</i> | 84 | Very Practical |
| Average Score | | 83.7 | Very Practical |

The results of the practicality test of the book "English for Culinary" based on Augmented Reality (AR) show that this book is generally well received by course lecturers based on several key indicators measured through questionnaires.

Practicality Test Results by Students

The researcher explained the results of the practicality test of the book "English for Culinary" based on Augmented Reality (AR) which was carried out through small-scale trials involving students. This practicality test aims to evaluate the extent to which this book is effective, easy to use, interesting and efficient in supporting the English for culinary learning process. By involving students as direct users, this test measures the learning experience, interaction with AR features, as well as students' perceptions regarding the ease and comfort of using books (Hakiki et al.,

2022). The results of this small-scale trial provide an initial picture of the strengths and areas that need to be improved in the book being developed, to ensure that this learning material can be implemented more widely and provide optimal benefits in supporting students' English skills for culinary.

Table 2. The Result of Practicality Test (Students)

| No | Indicator | Score | Category |
|----------------------|-----------------------|-------------|-----------------------|
| 1 | <i>Usable</i> | 83 | Very Practical |
| 2 | <i>Easy to use</i> | 81 | Very Practical |
| 3 | <i>Appealing</i> | 85 | Very Practical |
| 4 | <i>Cost effective</i> | 82 | Very Practical |
| Average Score | | 82.7 | Very Practical |

The practicality test results obtained from questionnaires filled out by students in try out showed that the book "English for Culinary" based on Augmented Reality (AR) was 82,7 considered good in various aspects of use.

2. Discussion

Practicality Test Results by Lecturer

Researcher describes the results of practicality tests on the book "English for Culinary" based on Augmented Reality (AR) that has been developed. The practicality test was carried out to assess the extent to which this book can be used effectively and efficiently in learning by students and lecturers (Creswell, 2012). The focus of this test is to observe user experiences related to ease of use, accessibility, and practical benefits of the AR-based content offered. This test also evaluates whether the AR features embedded in the book are able to support interactive learning and facilitate the achievement of the expected learning objectives. The results of this practicality test will provide important insight into the strengths and weaknesses of the book in everyday learning applications, as well as provide recommendations for further improvements to increase effectiveness and user comfort.

On the usable indicator, this book received an average score of 85, which shows that the lecturer considers this book to be quite functional and suitable for use in the learning context of the English for Culinary course. This book is considered

capable of meeting learning objectives, both in terms of English language material that is adapted to the culinary context and AR features that add an interactive dimension to the learning process (Gutierrez et al., 2022; Yuen et al., 2011).

For the easy-to-use indicator, this book received an average score of 80. This value shows that, even though this book is considered quite easy to use, there are still several aspects that could be improved to make it easier for users. The lecturer noted that this book requires time to get used to the embedded AR features, especially for users who are less familiar with the technology (Koca et al., 2019; Okumuş & Savaş, 2024). Simpler guides or clearer usage instructions are needed to help users understand how to access and utilize AR-based content more effectively.

On the attractive indicator (appealing), this book received an average score of 86, which is the highest score among other indicators. This value reflects that the AR-based "English for Culinary" book is considered very interesting by the lecturers. The integration of AR technology with English learning materials is considered successful in creating a more engaging and enjoyable learning experience (Smink et al., 2022). Lecturers appreciate the use of visual and interactive elements that can attract student attention and increase student learning motivation, as well as presenting content in a more dynamic and contextual format (Andi Aswan et al., 2019).

The efficient (cost-effective) indicator obtained an average score of 84, indicating that this book is considered quite efficient in terms of costs and resources required for its use. Lecturers assess that although there is an initial investment required, such as an AR-compatible device, the benefits gained from using this book—especially in terms of improving the English language skills of Culinary Arts Vocational Education Study Program students, make it worth the cost. The lecturer suggested that costs could be further optimized by leveraging existing technological resources or by ensuring that AR content can be accessed across various types of devices without any obstacles (Mutiarra et al., 2014).

The practicality test results show that the AR-based "English for Culinary" book has great potential to be used effectively in learning, although there are still several areas that can be improved, especially related to ease of use for all levels of users and efforts to further optimize cost efficiency.

Practicality Test Results by Students

On the usable indicator, this book received an average score of 83. This value indicates that students feel that the book is suitable and effective enough to use in learning. Students assessed that the AR content and features provided had met their English learning needs in a culinary context, provided relevant and applicable information, and helped improve overall understanding of the material (Alvarez et al., 2012). However, there are several suggestions for adding a variety of more challenging AR-based activities to better suit students' ability levels.

For the easy-to-use indicator, this book received an average score of 81. This value shows that although this book is generally considered easy to use, there are several challenges experienced by students, especially related to the accessibility of AR features. Some students expressed that they faced some difficulties the first time they used AR applications, such as understanding usage instructions and navigating the application interface (Wei et al., 2015). Students suggested improvements in usage guides or clearer interactive tutorials to help new users adapt to the technology more quickly and easily.

The interesting indicator (appealing) gets an average score of 85, which shows that this book has succeeded in attracting students' attention and interest. The integration of learning content with AR-based visual and interactive elements is considered effective in creating a more lively and engaging learning experience. Students feel that AR features, such as animated cooking techniques and visualization of food ingredients, provide a new dimension in learning English that is more fun and less boring (Tam & Tsang, 2023). This reflects that the existing AR content design and interactive elements

are quite attractive and can maintain student learning motivation (Chookaew et al., 2017).

On the efficient (cost-effective) indicator, this book received an average score of 82, indicating that students generally consider the use of this book to be quite efficient in terms of cost and time. Students feel that although there is a need to have devices that are compatible with AR technology, the benefits gained from using this book in learning such as increased understanding of the material and English language skills in the culinary field can offset the investment required (Rifa Urbah & Rauuf Oktavian Nur, 2020). However, there are several suggestions that book developers can pay more attention to the accessibility of AR content on various devices, so that using these books becomes more cost-effective for all students.

The practicality test results from students show that the AR-based "English for Culinary" book has good potential for use in learning. Even though it is considered interesting and suitable for learning needs, there are several areas that require improvement, especially in making it easier to access AR features and expanding the range of accessibility so that it is more cost-effective for all users.

The findings from this research have several important implications, both for the development of learning media and for the implementation of learning in the classroom. Assessments from lecturers show that AR technology helps increase learning effectiveness by making it easier to understand the material, especially through interactive visualization (Kaenchan, 2018). Meanwhile, from a student perspective, the integration of AR makes learning more interesting, fun, and supports their understanding of specific English terms in culinary terminology (Belda-Medina & Calvo-Ferrer, 2022).

Using AR not only provides a more interesting learning experience, but also helps students understand technical or specific material, such as English terminology in culinary (Rifa Urbah & Rauuf Oktavian Nur, 2020). Therefore, the integration of this technology can be an approach to increasing student

involvement in learning, while strengthening their abilities in English and vocational skills (Banham, 2023).

A high level of practicality, AR can be considered an efficient learning aid and worthy of use (Habibi et al., 2019). Therefore, educational institutions and lecturers can adopt this method to optimize the learning process without requiring too much additional costs, considering that AR can be accessed via smart devices that students generally already own.

CONCLUSION

Based on the results of the research that has been carried out, it can be concluded that the book "English for Culinary" which is equipped with Augmented Reality (AR) technology has a very high level of practicality, both according to the assessment of lecturers and students. The practicality indicators assessed include usable, easy to use, appealing, and cost-effective, all of which received an average score of 83.7. This value shows that this book is considered very practical for use in the process of learning English in the culinary field.

Assessments from lecturers show that AR technology helps increase learning effectiveness by making it easier to understand the material, especially through interactive visualization. Meanwhile, from a student perspective, the integration of AR makes learning more interesting, fun, and supports their understanding of specific English terms in culinary terminology.

The results of this research provide a basis for applying AR technology in various other vocational study programs and open opportunities for further research regarding the effectiveness of AR technology in improving learning outcomes in various scientific disciplines.

REFERENCES

- Abrar, M., Mukminin, A., Habibi, A., Asyraf, F., Makmur, M., & Marzulina, L. (2018). "If our English isn't a language, what is it?" Indonesian EFL Student Teachers' Challenges Speaking English. *Qualitative Report*, 23(1), 129–145. <https://doi.org/10.46743/2160-3715/2018.3013>
- Alvarez, V., Ternier, S., FitzGerald, E., Smith, C., Tabuenca, B., & Specht, M. (2012).

- Mobile augmented reality for education. *CEUR Workshop Proceedings*, 955, 1–8.
- Andi Aswan, Ridwan, M. I., Agung, A. S., Asfar, A. M. I. A., & Asfar, A. M. I. T. (2019). Penggunaan Media Augmented Reality (Ar) Terintegrasi Roadmap Berbasis Android Terhadap Pemahaman Konsep Sistem Pencernaan Manusia. *Prosiding Seminar Nasional Penelitian & Pengabdian Kepada Masyarakat 2019*, 2019, 187–190. <http://jurnal.poliupg.ac.id/index.php/snp2m/article/viewFile/1937/1780>
- Ayutami, A., Harahap, A., & . S. (2018). Learners' Need Analysis of English for Specific Purposes of Culinary Department Students At Smkn 3 Kota Bengkulu. *Journal of English Education and Teaching*, 2(1), 13–21. <https://doi.org/10.33369/jeet.2.1.13-21>
- Banham, D. (2023). The earliest English culinary recipes: dietary advice in Old English medical texts. *Journal of Medieval History*, 49(5), 711–724. <https://doi.org/10.1080/03044181.2023.2250943>
- Bator, M., & Sylwanowicz, M. (2017). Measures in Medieval English Recipes - Culinary Vs. Medical. *Studia Anglica Posnaniensia*, 52(1), 21–52. <https://doi.org/10.1515/stap-2017-0002>
- Belda-Medina, J., & Calvo-Ferrer, J. R. (2022). Integrating augmented reality in language learning: pre-service teachers' digital competence and attitudes through the TPACK framework. *Education and Information Technologies*, 27(9), 12123–12146. <https://doi.org/10.1007/s10639-022-11123-3>
- Bonner, E., & Reinders, H. (2018). Augmented And Virtual Reality in The Language Classroom: Practical Ideas. *Teaching English with Technology*, 18(3), 33–53. <http://www.tewtjournal.org>
- Brilianto, I., Rezeki, Y. S., & Maral, S. (2020). Designing an English Teaching Material for Tenth Grade Students of Culinary Study Program. *Journal of English Education Program*, 1(2), 97–110. <https://doi.org/10.26418/jeep.v1i2.40233>
- Chi, H. L., Kang, S. C., & Wang, X. (2013). Research trends and opportunities of augmented reality applications in architecture, engineering, and construction. *Automation in Construction*, 33(August), 116–122. <https://doi.org/10.1016/j.autcon.2012.12.017>
- Chookaew, S., Howimanporn, S., Sootkaneung, W., & Wongwatkit, C. (2017). Motivating Pre-service Teachers with Augmented Reality to Developing Instructional Materials through Project-Based Learning Approach. *Proceedings - 2017 6th IIAI International Congress on Advanced Applied Informatics, IIAI-AAI 2017*, July, 780–784. <https://doi.org/10.1109/IIAI-AAI.2017.106>
- Clarke, S. K. (2014). *Markörlös Augmented Reality för visualisering av 3D-objekt i verkliga världen Markörlös Augmented Reality för visualisering av 3D-objekt i verkliga världen Examensarbete utfört i Medieteknik Semone Kallin Clarke*.
- Creswell, J. W. (2009). Research Design: Qualitative, Quantitative, and Mixed-Methods Approaches. In *SAGE Publications* (Vol. 3, Issue 11). <https://doi.org/10.1128/microbe.4.485.1>
- Creswell, J. W. (2012). *Educational research : planning, conducting, and evaluating quantitative and qualitative research* (4th ed). Pearson Education, Inc.
- Díaz-Noguera, M. D., Toledo-Morales, P., & Hervás-Gómez, C. (2017). Augmented reality applications attitude scale(ARAAS): Diagnosing the attitudes of future teachers. *New Educational Review*, 50(4), 215–226. <https://doi.org/10.15804/ner.2017.50.4.17>
- Gutierrez, L. E., Betts, M. M., Wightman, P., Salazar, A., Jabba, D., & Nieto, W. (2022). Characterization of Quality Attributes to Evaluate the User Experience in Augmented Reality. *IEEE Access*, 10(November), 112639–112656. <https://doi.org/10.1109/ACCESS.2022.3216860>
- Habibi, A., Razak, R. A., Yusop, F. D., & Mukminin, A. (2019). Preparing future EFL teachers for effective technology integration: What do teacher educators say? *Asian EFL Journal*, 21(2), 9–30.
- Hakiki, R., Muchson, M., Sulistina, O., & Febriana, A. (2022). The Development of Learning Media Based on Augmented Reality, Hologram, and Ludo Game on The Topic of Molecular Shapes. *International Journal of Interactive Mobile Technologies*, 16(4), 70–84. <https://doi.org/10.3991/ijim.v16i04.28989>
- Kaenchan, P. (2018). *Examining Thai Students' Experiences of Augmented Reality Technology in a University Language Education Classroom*. Boston University.
- Kiaer, J., Calway, N., & Ahn, H. (2021). Chinese, Japanese and Korean-inspired culinary words in the English language. *3L: Language, Linguistics, Literature*,

- 27(3), 1–21. <https://doi.org/10.17576/3L-2021-2703-01>
- Koca, B. A., Cubukcu, B., & Yuzgec, U. (2019). Augmented Reality Application for Preschool Children with Unity 3D Platform. *3rd International Symposium on Multidisciplinary Studies and Innovative Technologies, ISMSIT 2019 - Proceedings*, 1–4. <https://doi.org/10.1109/ISMSIT.2019.8932729>
- Korthagen, F. A. J. (2010). Situated learning theory and the pedagogy of teacher education: Towards an integrative view of teacher behavior and teacher learning. *Teaching and Teacher Education*, 26(1), 98–106. <https://doi.org/10.1016/j.tate.2009.05.001>
- Maydiantoro, A. (2020). Model Penelitian Pengembangan. *Chemistry Education Review (CER)*, 3(2), 185. <https://doi.org/10.26858/cer.v3i2.13769>
- Mayer, R. E. (2012). A Cognitive Theory of Multimedia Learning. *Multimedia Learning*, July, 41–62. <https://doi.org/10.1017/CBO9781139164603.004>
- Mutiara, G. A., Hapsari, G. I., & Handayani, R. (2014). Design and implementation learning media of a computer hardware introduction as a teaching tool based-on augmented reality technology. *Contemporary Engineering Sciences*, 7(13–16), 611–616. <https://doi.org/10.12988/ces.2014.4667>
- Norabeerah Saforudin. (2015). Teachers' Readiness in Deployment of Augmented Reality as Instructional Media. *Jurnal Semarak Bahasa*, 7, 100–114.
- Novaliendry, D., Saltriadi, K. S., Mahyuddin, N., Sriwahyuni, T., & Ardi, N. (2022). Development of Interactive Media Based on Augmented Reality for Early Childhood Learning Around the Home. *International Journal of Interactive Mobile Technologies*, 16(24), 4–20. <https://doi.org/10.3991/ijim.v16i24.34501>
- Okumuş, A., & Savaş, P. (2024). Investigating EFL teacher candidates' acceptance and self-perceived self-efficacy of augmented reality. *Education and Information Technologies*, 0123456789. <https://doi.org/10.1007/s10639-024-12517-1>
- Pratama, H., Azman, M. N. A., Kenzhaliyev, O. B., Wijaya, H., & Kassymova, G. K. (2021). Application of augmented reality technology as an interactive learning medium in geography subjects. *News of the National Academy of Sciences of the Republic of Kazakhstan, Series of Geology and Technical Sciences*, 4(448), 21–29. <https://doi.org/10.32014/2021.2518-170X.77>
- Prendes, C., Lee, K., Cárdenas Ruiz, A.; Y. M.; J. M. J. S. B. H., Cheah, M. S., Wong, P. E., Quah, Y. P., Zainon, W. M. N. W., Mukhopadhyay, A., Sharma, V. K., Tatyrao, P. G., Shah, A. K., Rao, A. M. C., Subin, P. R., Biswas, P., Buchner, J., Kerres, M., Ou Yang, F. C., Lai, H. M., Wang, Y. W., ... Fernández-Moyano, J. A. (2022). Augmented Reality (AR) in Language Learning: A Principled Review of Meltem Huri Baturay. *Computers and Education*, 10(2), 13–21. <https://doi.org/10.1016/j.treng.2022.100159>
- Reinders, H., & Lakarnchu, O. (2014). Implementing mobile language learning with an augmented reality activity. *Modern English Teacher*, 23(2), 42–46.
- Rifa Urbah, A., & Rauuf Oktavian Nur, M. (2020). *the Owners' Preference in Using English As Culinary Trademark Branding in Magelang Street Food and Café*. 329–334.
- Ritsos, P., Ritsos, D., & Gougoulis, A. (2011). Standards for Augmented Reality: a User Experience perspective. ... *Standards Meeting-February 17*, 1–9. http://www.perey.com/ARStandards/Ritsos-A_User_Experience_perspective.pdf
- Sirakaya, M., & Cakmak, E. K. (2018). The effect of augmented reality use on achievement, misconception and course engagement. *Contemporary Educational Technology*, 9(3), 297–314. <https://doi.org/10.30935/cet.444119>
- Smink, A. R., van Reijmersdal, E. A., & van Noort, G. (2022). Consumers' Use of Augmented Reality Apps: Prevalence, User Characteristics, and Gratifications. *Journal of Advertising*, 51(1), 85–94. <https://doi.org/10.1080/00913367.2021.1973622>
- Sofian, S., & Jufenna, M. (2020). *Designing Supplementary Material "English for Culinary" for Vocational High School Students*. 1(2), 13–22. <https://doi.org/10.26418/jefle.v1i2.43747>
- Sriadhi, S., Hamid, A., Sitompul, H., & Restu, R. (2022). Effectiveness of Augmented Reality-Based Learning Media for Engineering-Physics Teaching. *International Journal of Emerging Technologies in Learning*, 17(5), 281–293. <https://doi.org/10.3991/ijet.v17i05.28613> <https://doi.org/10.3991/ijet.v17i05.28613>

13

- Tam, H. W. Y., & Tsang, S. C. S. (2023). Cantonese culinary lexical interaction between Hong Kong and Singapore English. *English Today*. <https://doi.org/10.1017/S0266078423000366>
- Wei, X., Weng, D., Liu, Y., & Wang, Y. (2015). Teaching based on augmented reality for a technical creative design course. *Computers & Education*, 81, 221–234. <https://doi.org/10.1016/j.compedu.2014.10.017>
- Yanto, D. T. P. (2019). Praktikalitas Media Pembelajaran Interaktif pada Proses Pembelajaran Rangkaian Listrik. *INVOTEK: Jurnal Inovasi Vokasional Dan Teknologi*, 19(1), 75–82. <https://doi.org/10.24036/invotek.v19i1.409>
- Yuen, S. C.-Y., Yaoyuneyong, G., & Johnson, E. (2011). Augmented Reality: An Overview and Five Directions for AR in Education. *Journal of Educational Technology Development and Exchange*, 4(1). <https://doi.org/10.18785/jetde.0401.10>