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Digital ESP (English For Specific Purposes) Material Development CLIL (Content language integrating learning) Based

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Abstract

CLIL (Content and Language Integrated Learning) is a learning approach that integrates English language and subject content in an integrated way. In CLIL, language is not the primary goal of learning, but a means to understanding and accessing course content. The purpose of the research is to provide effective and engaging resources that support English language learners in developing the students' language skills. Design of this Research is Research and Development using 4D model Findings Increased Content Understanding in Better Language Skills as well as Increased student engagement. Implications This shows that CLIL has the potential to improve language and content learning holistically, helping students develop relevant skills in a global context in Sustainable Language Ability Development. Originality developed CLIL to overcome the limitations of traditional language teaching methods, which often focus on isolated language skills and lack meaningful context. CLIL seeks to provide students with immersive language learning experiences by integrating English language instruction with the study of content subjects such as science, history, math, or art.

Keywords: Digital ESP, English For Specific Purposes, material Development, CLIL (Content language integrating learning)

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Introduction

CLIL, which stands for Content and Language Integrated Learning, is a learning approach that integrates foreign language learning with other subject matter or content. CLIL approach is designed to develop language skills (Curran & Chern, 2021) and simultaneous understanding of the content. For example, in the CLIL approach, math lessons (Mahan, 2022) or science can be taught in a foreign language such as English. The CLIL approach can traced for various purposes, among others: Improving the Effectiveness of Language Learning (Rieder et al., 2023) The CLIL approach aims to enrich language learning by connecting it to real contexts and materials. In CLIL, language is used as a communication tool to learn and understand the lesson content. Thus, learning English becomes more contextual and relevant to students and the development of critical thinking skills and soft skills: In the CLIL, students are exposed to tasks that involve analysis, synthesis, problem-solving and collaboration. Integration of language with course content (Boaler et al., 2022) allows students to develop critical thinking skills and soft skills such as the ability to communicate, work together, and adapt to cultural diversity.

The problem is that most of the teaching materials, especially ESP teaching materials (still in conventional form, or hard book so that the development of teaching materials in digital form based on CLIL (Content language integrating learning) is needed. They have also impacted various aspects of language teaching policy, provision and methods for both indigenous and foreign languages (Bialystok, 1978) (Kramsch, 2014)

Implementing the CLIL (Content and Language Integrated Learning) approach can also pose several challenges and problems, among others: The readiness of teaching staff in implementing CLIL requires the ability of teaching staff to have a good understanding of the lesson content and adequate foreign language skills. Not all teachers have the necessary skills and knowledge to integrate foreign language with course content. It takes time, training and appropriate support for teachers to prepare themselves to teach with a CLIL approach.

This is done to understand and improve the implementation and effectiveness of the CLIL approach in educational contexts and improve students' language skills and content comprehension as well as provide Practical CLIL Guidelines for teachers. (Kao, 2022)

Along with the development of technology, access to information must be faster, so that with the development of this ESP teaching material into digital form, it allows access to learning to run more efficiently, In addition, the integration of the CLIL method is important to implement because good teaching, especially language teaching,

must involve four aspects, namely: content, Communication, Congnitive and Culture, or known as 4d, which characterizes the approach in CLIL.. (Shipilova et al., 2022)

The problem to be solved is to make teaching materials in digital form can be a very effective solution in facilitating distance learning or online learning. The digital teaching materials developed will be based on CLIL which integrates content, Communication, Congnitive and Culture.

It is important to discuss because teaching materials in digital form have several advantages compared to printed teaching materials, including: Wider accessibility, More interactive:, Easy to update: . More cost-effective: Environmentally friendly: The following reason is because the current teaching has not integrated the aspects of content, communication, cognitive and culture in the process of developing teaching materials.

How to solve the problem is By utilizing technological advances, the problems, especially ESP teaching materials that are still in this conventional form, will be resolved by utilizing existing technology such as Web-based Instructional materials. CLIL based. With rapid development of mobile technology, the number of researches on its use in language education process has increased. This growing body of interest has led to a need for review studies that are expected to explain the literature and the trend in the field succinctly (Kramsch, 2014)

The reason for the research is that seeing the condition of teaching materials that are still in convensinal or hard copy form, this ESP teaching material needs to be developed in digital form. (Girón-García & Fortanet-Gómez, 2023) Because digitization is important in English language teaching and learning, especially in the context of distance learning or online learning, and in the design of ESP teaching materials, content, Communication, Congnitive dan Culture (Yining, 2021) should be integrated because good learning should involve all four components.

This research can contribute to filling the existing gaps in this learning approach by enhancing the understanding of effectiveness which can help identify the effectiveness of the CLIL approach in improving students' content comprehension and language skills. Thus, the research can provide strong evidence to support or challenge the implementation of CLIL and provide a clearer understanding of the extent to which this approach is effective in achieving its goals.

The method that will be used is RND (Research and Development) using Thiagarajan's 4d design State of the art in CLIL reflect a recent development in this approach is the Use of Technology in

Learning (Heidari et al., 2022) Technology can be used to enrich the learning experience, provide access to digital resources, and facilitate online collaboration between students. The use of technology also allows students to interact with foreign languages in a more authentic and real context. The proposed innovation is the development of ESP teaching materials from conventional to digital teaching materials based on the CLIL approach.

Research Question

1. How esp material CLIL based digital oriented develop in indonesia context?
2. How CLIL characteristics' (content) integrating in esp digital learning?
3. How CLIL characteristics' (cognition) integrating in esp digital learning?
4. How CLIL implementation trigger student's cognitive engagement, problem-solving and higher-order thinking?

What will be done in this CLIL development is Language and Content Integration, Development of Relevant Teaching Materials: with the digital era, (Iskandar et al., 2022) Deep understanding of digital content and use of technology in learning:. The expected development of CLIL is Improved Digital Content Comprehension, English Language Skill Development, (Sunjayanto Masykuri, 2022) Adaptability to the Global Environment and Development of Metacognitive Skills.

With the development of CLIL-based Digital ESP teaching materials, it will produce teaching materials that follow the development of existing technology and also the integration of important components in teaching, namely content, communication, cognitive and culture is not forgotten.

Methods

Search 1

english AND for AND specific AND purposes 753,012 document results

Limit to year 2023 24,182 document results

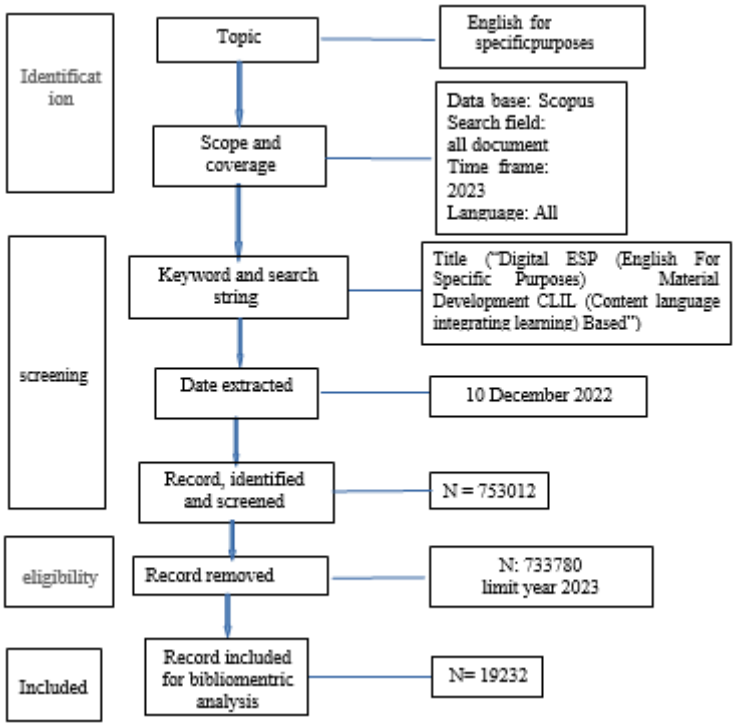
Limit Document Type Journal 19,287 document results

english AND for AND specific AND purposes AND (LIMIT-TO (PUBSTAGE , "final")) AND (LIMIT-TO (PUBYEAR , 2023)) AND (LIMIT-TO (SRCTYPE , "j"))

19,232 document results

This article was obtained with several filters, namely only the year 2023, source type journal and publication stage Final.

Figure 1. Flow Diagram Bibliometric



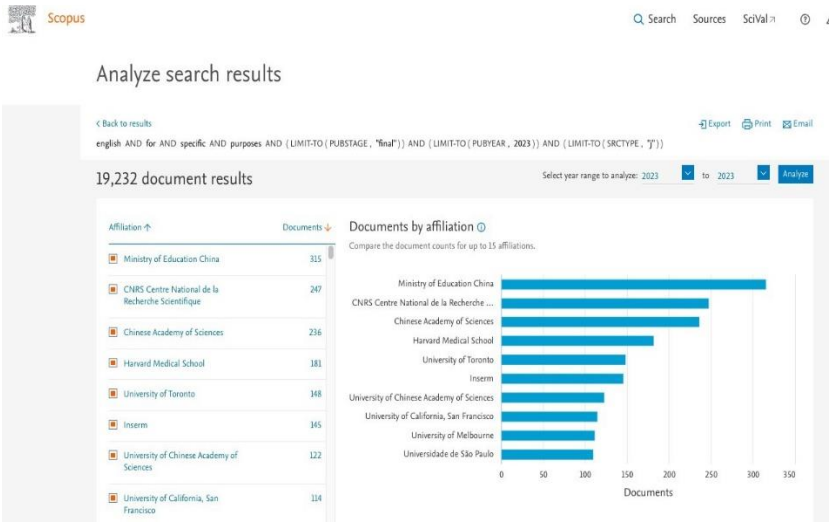
Data Analysis

In this analysis process there are 3 main stages, namely: Topic, Scope & Eligibility, Screening and Included. The Topic, Scope & Feasibility stage consists of determining the Topic, namely: english for specific purposes , then determining the scope and coverage using Database: Scopus, Search Field: Article Title, Time Frame: Throughout the Year, 2023, Language, then determining Keywords & search strings, namely the process general determination in the search for metadata according to the theme, namely Title ("Digital ESP (English For Specific Purposes) Material Development CLIL (Content language integrating learning) Based "). The initial stages in Topic, Scope & Eligibility have been completed which resulted in the concept of metadata. Furthermore, the Screening stage is one of the processes carried out to obtain the metadata that best fits the research question, in this case there are also 3 steps, namely: Date Extracted is a data processing process that provides time information on the extracted data, which is around December 10, 2022 This process was followed by the next stage, namely Record Identified & Screened, namely an in-depth selection process related to research questions, resulting in 753,012 documents consisting of articles, book chapters, books and reviews. Next is the Record Removed stage, which is a process carried out to

remove all metadata that is inconsistent with the research question so that as many as 733830 medadata are deleted consisting of book chapters, books and reviews. This process is the final part of the screening stage. The last stage is Included, which is a process that includes all metadata that are considered to be able to answer the research questions that leave 19232 metadata. This metadata is then processed in VosViewer to get answers to research questions.

Result

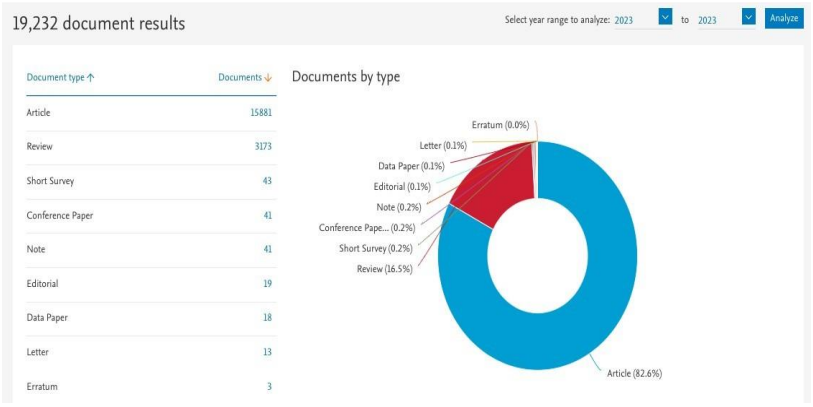
Figure 1. Analysis Result Document by Affiliation



The analysis of documents conducted by affiliation aims to understand the impact or contribution that a particular entity can make to the observed outcomes. In this context, affiliates may refer to entities such as universities, research institutes, non-governmental organizations, or companies. (Poniatowski, 2022). By analyzing the results by affiliation, patterns, trends or differences relating to that entity can be found.

Through this analysis, it is possible to gain deeper insight into the contribution or influence of a particular entity in the outcome under study. This can help in identifying the strengths or weaknesses of the entity, explaining the role played by each affiliate, or understanding the relationship between the affiliate and the outcome.

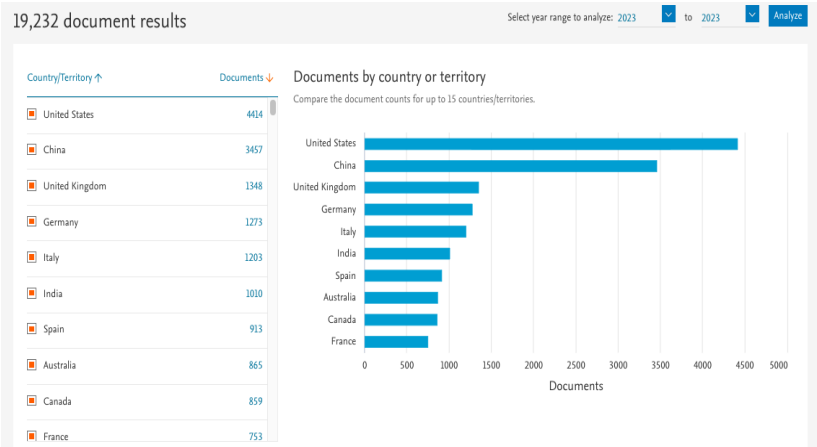
Figure 2. Analysis Result Document by Type



Analysis Result Document by Type refers to analysis activities carried out on documents by considering the type or types of documents. In this context, analysis can include various methods and techniques to extract information, analyze data, identify patterns, or evaluate content in documents by considering relevant categories or types.

This approach is usually taken to organize and present the results of the analysis systematically, by separating and grouping documents by type. By considering document types, analysis can be more detailed or specific to the unique characteristics of each document type.

Figure 3. Analysis Result Document by Country



Analysis Result Document by Country refers to the analysis activities carried out on documents by considering the country or region where the document originated. In this context, the analysis may involve grouping documents by country of origin or identifying information relevant to a particular country.

This approach is usually taken to understand issues related to individual countries, comparisons between countries, (Thunberg &

Arnell, 2022) or to study emerging trends or patterns in a regional context. By considering countries as a category of analysis, it is possible to discover differences in culture, policy or socio-economic contexts that may influence the documents.

Figure 4. Analysis Result Document by Subject Area

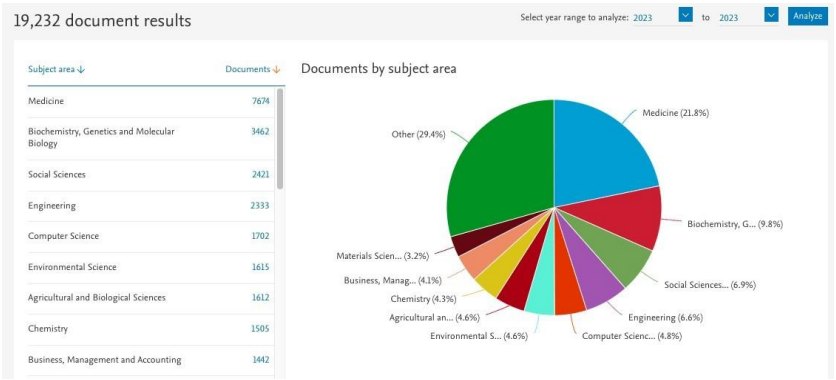


Table 1. Top 10 Filter by Keywords out of 200 existing keywords

No	Top 10 Keyword	Total Publication	Percentage
1	Human	7719	20.87%
2	Humans	5963	16.13%
3	Article	5184	14.02%
4	Female	3566	9.64%
5	Male	3528	9.54%
6	Controlled Study	3218	8.70%
7	Adult	2931	7.93%
8	Major Clinical Study	1728	4.67%
9	Nonhuman	1641	4.44%
10	Procedures	1500	4.06%
	Total	36978	100%

Top 10 Filter by Keywords" describes the process of using filters in order to narrow down the search and identify the top 10 most relevant results based on predefined keywords. In this context, keywords refer to specific words or phrases used to search for specific information.

By using filters, the information or data obtained can be filtered or focused only on the results that are most relevant to the keywords that have been determined. (Rachunok et al., 2022). This helps narrow down the scope of the search and minimize the number of irrelevant or unwanted results.

Table 2. Top 10 Filter by Affiliation of approximately 163 Affiliations

No	Top 10 Affiliation	Total Publication	Percentage
1	Ministry of Education China	315	160.71%
2	CNRS Centre Nationalde la Recherche Scientifique	247	126.02%
3	Chinese Academy of Sciences	236	120.41%
4	Harvard Medical School	181	92.35%
5	University of Toronto	148	75.51%
6	Inserm	145	73.98%
7	University of Chinese Academy of Sciences	122	62.24%
8	University of California, San Francisco	114	58.16%
9	University of Melbourne	111	56.63%
10	Universidade de São Paulo	109	55.61%
	Total	1728	100%

Table 4. Filter by Document Type

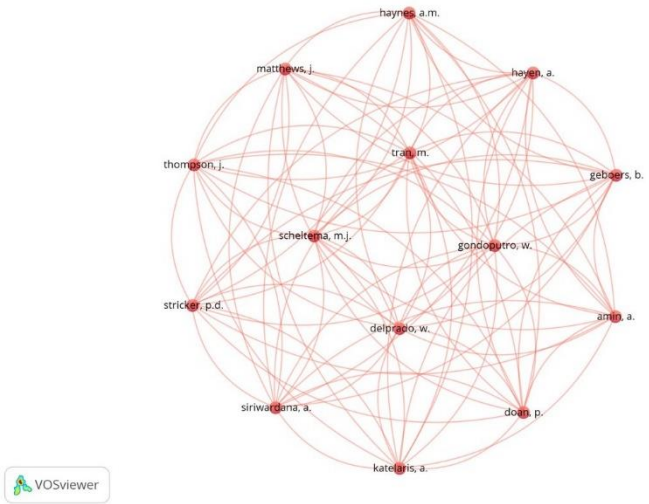
No	Document Type	Total Publication	Percentage
1	Article	15881	82.58%
2	Review	3173	16.50%
3	Short Survey	43	0.22%
4	Conference Paper	41	0.21%
5	Note	41	0.21%
6	Editorial	19	0.10%
7	Data Paper	18	0.09%
8	Letter	13	0.07%
9	Erratum	3	0.02%
	Total	19232	100%

Discussion

Network Visualization from Scopus RIS Metadata describes the process of visualizing networks or relationships between entities in a study using metadata obtained from Scopus and presented in RIS (Research Information Systems) format. In this context, metadata

refers to descriptive information about scientific publications included in the Scopus database.

Figure 5. Network Visualization from Metadata RIS scopus



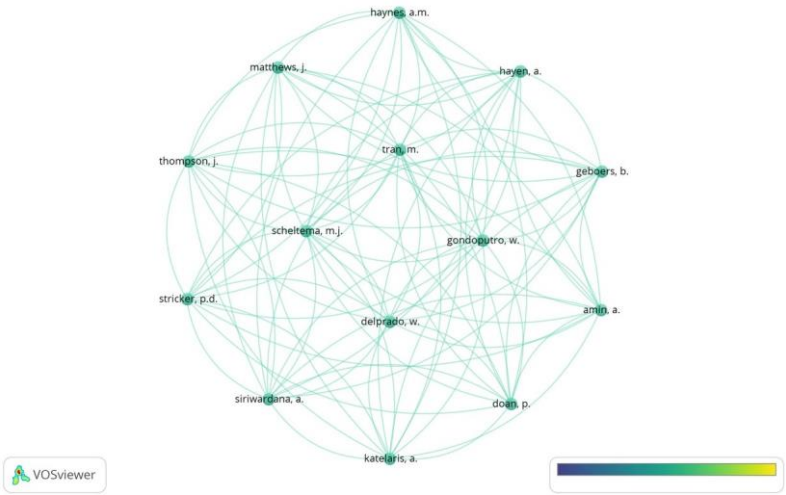
Network Visualization from Scopus RIS Metadata describes the process of visualizing networks or relationships between entities in a study using metadata obtained from Scopus and presented in RIS (Research Information Systems) format. In this context, metadata refers to descriptive information about scientific publications included in the Scopus database.

The process of network visualization based on Scopus RIS metadata aims to illustrate the linkages or relationships between entities contained in specific articles. This visualization may include elements such as author, article title, research topic, or institutional affiliation.

In the context of the article mentioned "Digital ESP (English For Specific Purposes) Materials Development CLIL (Content Language Integrating Learning) Based," Network visualization can help understand and show the interrelationships between entities such as authors, research topics, and institutions involved in the development of CLIL-based digital ESP materials.. (Qoura, 2020) This network visualization provides a clearer and more structured view of how the entities in the article are interrelated and interact with each other. It can provide insights into research trends, academic collaboration, or other important aspects in the context of CLIL-based digital ESP. Indicates that the article discusses the use of network visualization technology based on RIS scopus metadata in the development of CLIL-based Digital ESP (English For Specific Purposes) materials (Content language integrating learning). This article discusses how network visualization technology can be used in the development of ESP learning materials

that focus on language content. CLIL is a learning approach that integrates language with other learning content.

Figure 6. Overlay Visualization from Metadata RIS scopus

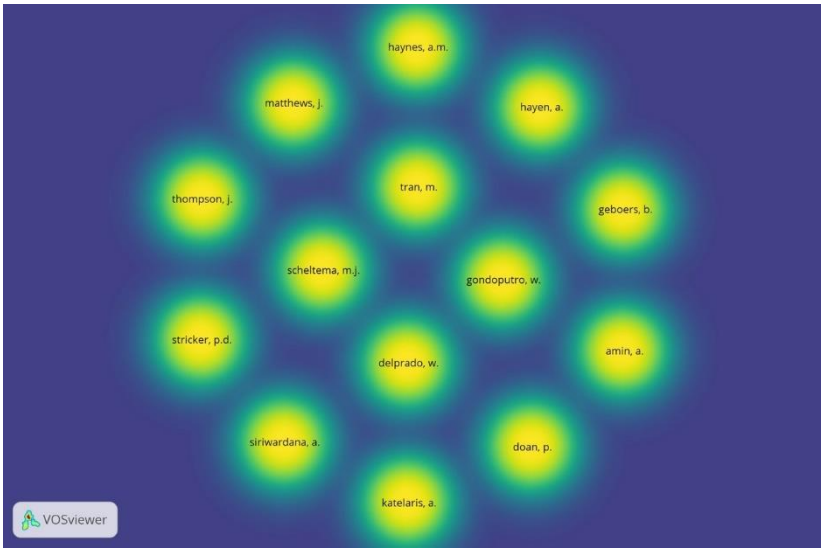


Overlay Visualization from Scopus RIS Metadata refers to the process of visualizing overlaps or relationships between entities in articles based on metadata obtained from Scopus in RIS (Research Information Systems) format. In this context, overlay visualization refers to a visualization technique used to show the overlap or interaction between elements.

Overlay visualization of Scopus RIS metadata can help understand and visualize relationships or overlaps between entities such as authors, research topics, or institutional affiliations related to the development of CLIL-based digital ESP materials..(Fitrawati et al., 2023)

Through the overlay visualization technique, the information contained in the RIS Scopus metadata is presented graphically by showing the interactions, interrelationships, or overlaps between the entities involved in the article. This can provide a more comprehensive understanding of the network of authors, related research, or other relevant entities in the context of CLIL-based digital ESP.

Figure 7. Density Visualization from Metadata RIS scopus



Density Visualization from Metadata RIS Scopus refers to the process of visualizing the density or frequency of entities in articles related to the development of CLIL-based digital ESP materials. (Donthu et al., 2021) RIS metadata obtained from Scopus is used as a data source to build the visualization.In the context of the article "Digital ESP (English For Specific Purposes) Material Development CLIL Based," density visualization is used to understand and visualize the extent to which certain entities, such as authors, research topics, or institutional affiliations, are distributed or appear in the article.

Through the density visualization technique, the information contained in the RIS Scopus metadata is graphically processed to show the density or frequency of occurrence of these entities. This can provide insight into the most dominant or frequently occurring elements in the context of CLIL- based digital ESP.

based on the top 4 articles that will be published in 2023 and registered in the scopus data base

Title 1 Digital Game-Based Technology for English Language Learning in Preschools and PrimarySchools: A Systematic Analysis (Ongoro & Fanjiang, 2023)
Author's Ongoro, Catherine Akoth, Fangjiang, Yong-Yi
Url Article https://ieeexplore.ieee.org/document/10105529
Result or Findings The findings indicate that DGBL influences motivation, creativity, and problem-solving ability.

Conclussion Digital game-based technology enables learning to become more interactive and inspirational,thereby enhancing language acquisition
Author Analysis The authors recommend new technologies and software engineering processes as possible solutionsfor continuity in this CLIL-based research by providing information on the importance of applying emerging technologies such as artificial intelligence, blockchain, deep learning, AR/VR.
Future Concept fully utilize information technology facilities in CLIL-based English learning
Title 2 Web-based applications to develop students' creativity in english for specific purposes (Simkova etal., 2021)
Author's Simkova, Iryna, Bondarenko, Oleksandra, Bielovetska, Lina
Url Article https://ijere.iaescore.com/index.php/IJERE/article/view/21248
Result or Findings The findings of this study support the idea that the development of creative thinking skills during the distance learning of bachelor students of different specialism can be intensified with theselection of proper web-based applications
Conclussion Tthe use of web-based applications during ESP teaching is aimed at mastering by students of well- known technologies and techniques for using computer tools and only partially aimed at the development of creativity.
Author Analysis
CLIL can be used as a way to implement ESP, the use of web-based applications and smartphones while teaching ESP is aimed at mastering well-known technology and engineering students to use computer tools and only partially aimed at developing creativity.
Future Concept Web-based applications can be developed with smartphone devices as a smart device in implementing ESP for creativity development.
Title 3 Research on the Development and Application of English for Specific Purposes Corpora (Simkova et al., 2021)
Author's Xu, Chao
Url Article https://ieeexplore.ieee.org/document/9993459
Result or Findings With exploring the role of intelligent language construction based on corpora in ESP, this paper researches on the development and application of ESP Corpora. The results can be directly applied in computer field and other related research to promote the development of computer science
Conclussion

The advancement of computer science benefits the development of corpora
Author Analysis (ESP) is an interdisciplinary research field shaped by the fusion of computer science and language disciplines, and is also an important practice response to scientific developments. in ESP, development and application of ESP can be carried out in various fields.
Future Concept Future (ESP) can be an alternative that can be used in the teaching and learning process in other applied engineering sciences.
Title 4 The Development of E-Module English Specific Purpose based on Computer Application for Vocational High School Students (Dewi et al., 2019)
Author's Yosa Novia Dewi, Mardhiah Masril, Emil Naf'an, Billy Hendrik, Jhon Veri, Khidayatul Munawwaroh, Efa Silfia3and Arif Widyatama
Url Article https://iopscience.iop.org/article/10.1088/1742-6596/1364/1/012043
Result or Findings Validation test results show that overall ESP e-modules are very valid for use by students and teachers with a score of 89.5%. .
Conclussion The ESP e-module validation test results are carried out through 4 aspects, namely: Physical Quality / Display, Material Quality, Quality of Purpose and Role, and Instructional Quality.This means that this ESP e-module is very valid to be used by both students and tlecturer
Author Analysis ESP is a combination of knowledge and skills in using computers in English. Because the ability to speak English is an important component of economic competitiveness, both at the individual and national levels. Free trade between countries allows economic actors to access world markets, so that competition between countries in the trade arena becomes even higher.
Future Concept
In the future ESP can be further developed in other fields such as economics so that the use of English can be used as a basis for communicating in the free market era.

Conclusion

The development of CLIL-based ESP materials supported by digital technology has great potential to enhance English language learning that is fit for purpose. The CLIL approach allows students to learn English contextually in specific content, while digital technology can provide rich and interactive resources to enhance the learning experience. The combination of these two approaches can provide an effective and relevant learning experience for students who want to develop English skills relevant to their specific field.

Bibliography

Bialystok, E. (1978). A THEORETICAL MODEL OF SECOND LANGUAGE LEARNING1.Language Learning, 28(1), 69–83. https://doi.org/https://doi.org/10.1111/j.1467- 1770.1978.tb00305.x

Boaler, J., Brown, K., LaMar, T., Leshin, M., & Selbach-Allen, M. (2022). Infusing Mindset through Mathematical Problem Solving and Collaboration: Studying the Impact of a Short College Intervention. Education Sciences, 12(10). https://doi.org/10.3390/educsci12100694

Curran, J. E., & Chern, C.-L. (2021). Bilingual Education Using a CLIL Approach: In-Service Science Teachers' Perceptions of Science-English Classes Taught by Pre-Service English Teachers. Taiwan International ESP Journal, 12(2). https://doi.org/10.6706/TIESPJ.202112_12(2).0001

Dewi, Y. N., Masril, M., Naf'an, E., Hendrik, B., Veri, J., Munawwaroh, K., Silfia, E., & Widyatama, A. (2019). The Development of E-Module English Specific Purpose based on Computer Application for Vocational High School Students. Journal of Physics: Conference Series, 1364(1). https://doi.org/10.1088/1742-6596/1364/1/012043

Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. Journal of Business Research, 133, 285–296. https://doi.org/https://doi.org/10.1016/j.jbusres.2021.04.070

Fitrawati, Syarif, H., Zaim, M., & Perrodin, D. D. (2023). The perceptions of tertiary students and lecturers regarding CLIL-based critical reading material employing interactive multimedia. Indonesian Journal of Applied Linguistics, 12(3), 598–611. https://doi.org/10.17509/ijal.v12i3.36838

Girón-García, C., & Fortanet-Gómez, I. (2023). Science dissemination videos as multimodal supporting resources for ESP teaching in higher education. English for Specific Purposes, 70, 164–176. https://doi.org/https://doi.org/10.1016/j.esp.2022.12.005

Heidari, A., Navimipour, N. J., & Unal, M. (2022). Applications of ML/DL in the management of smart cities and societies based on new trends in information technologies: A systematic literature review. Sustainable Cities and Society, 85, 104089. https://doi.org/https://doi.org/10.1016/j.scs.2022.104089

Iskandar, I., Sumarni, S., Dewanti, R., & Asnur, M. N. A. (2022). Infusing Digital Literacy in Authentic Academic Digital Practices of English Language Teaching at Universities. International Journal of Language Education, 6(1), 75–90. https://doi.org/10.26858/ijole.v6i1.31574

Kao, Y.-T. (2022). Understanding and addressing the challenges of teaching an online CLIL course: a teacher education study. International Journal of Bilingual Education and Bilingualism, 25(2), 656–675. https://doi.org/10.1080/13670050.2020.1713723

Kramsch, C. (2014). Teaching Foreign Languages in an Era of Globalization: Introduction. The Modern Language Journal, 98(1), 296–311. https://doi.org/https://doi.org/10.1111/j.1540- 4781.2014.12057.x

Mahan, K. R. (2022). The comprehending teacher: scaffolding in content and language integrated learning (CLIL). Language Learning Journal, 50(1), 74–88. https://doi.org/10.1080/09571736.2019.1705879

Ongoro, C. A., & Fanjiang, Y.-Y. (2023). Digital Game-Based Technology for English Language Learning in Preschools and Primary Schools: A Systematic Analysis. IEEE Transactions on Learning Technologies, 1–20. https://doi.org/10.1109/TLT.2023.3268282

Poniatowski, M. (2022). CONTENT OF THE RIGHT TO PARENTAL RESPONSIBILITY AND THE ACTIVITIES OF NON - GOVERNMENTAL ORGANIZATIONS IN POLAND 2.

Outline of the legal basis for the activities of NGOs in Poland. REAL, 2(2), 0–2. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/http://real.mtak.hu/166593/1/ LIVe4_Poniatowski.pdf

Qoura, A. A. (2020). New trends in English language teaching and learning. Current Research in ELT&L, 1, 1–16. https://www.researchgate.net/profile/Salasiah_Ammade/publication/348919689_Researching_the_Needs_of_Learning_in_Writing_Course_Using_ASSURE_Model_Initial_Step_in_Developing_TPACK_Model_Based_Instruction/links/6016b81592851c2d4d0934e3/Researching-the- Needs

Rachunok, B., Fan, C., Lee, R., Nateghi, R., & Mostafavi, A. (2022). Is the data suitable? The comparison of keyword versus location filters in crisis informatics using Twitter data. International Journal of Information Management Data Insights, 2(1), 100063. https://doi.org/https://doi.org/10.1016/j.jjimei.2022.100063

Rieder, A. D., Viljoen, M., Seris, N., Shabalala, N., Ndlovu, M., Turner, E. L., Simmons, R., de Vries, P. J., & Franz, L. (2023). Improving access to early intervention for autism: findings from a proof-of-principle cascaded task-sharing naturalistic developmental behavioural intervention in South Africa. Child and Adolescent Psychiatry and Mental Health, 17(1). https://doi.org/10.1186/s13034-023-00611-0

Shipilova, T., Afanaseva, L., & Pavón-Vázquez, V. (2022). Learning in Diverse Learner Contexts BT - Adult English Language Teaching : Transformation through Lifelong Learning (V. Kononova, N. Kersh, & T. Dobrydina (eds.); pp. 101–123). Springer International Publishing. https://doi.org/10.1007/978-3-030-98566-0_6

Simkova, I., Bondarenko, O., & Bielovetska, L. (2021). Web-based applications to develop students' creativity in english for specific purposes. International Journal of Evaluation and Research in Education, 10(2), 684–692. https://doi.org/10.11591/ijere.v10i2.21248

Sunjayanto Masykuri, E. (2022). Students' perception of digital media for English teaching learning. TEFL Journal Teaching English as Foreign Language Journal ISSN XXX XXX, 1(1), 64–73. http://journal1.uad.ac.id/index.php/tefl/article/view/171%0Ahttp://journal1.uad.ac.id/ index.php/tefl/indexeditor@telfjournal.org

Thunberg, S., & Arnell, L. (2022). Pioneering the use of technologies in qualitative research – A research review of the use of digital interviews.

International Journal of Social Research Methodology, 25(6), 757–768. https://doi.org/10.1080/13645579.2021.1935565

Yining, C. (2021). Exploring Content and Language Integrated Learning (CLIL) teaching materials in Chinese universities: teachers and students perceptions and reflections. International Journal of English and Literature, 12(3), 23–32. https://doi.org/10.5897/ijel2021.1444