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# Flipbook trends and their influence on the development of guidance and counseling teaching media in higher education: Bibliometric analysis

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| Article Information:                                      | Abstract                                                                                                                                                                                                                                                                                                                                  |  |  |
|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Received:<br>13 November 2022<br>Revised:                 | <b>Purpose</b> – The purpose of this research is to map relevant topics that support the renewal of research topics on the development of flipbook-based media.                                                                                                                                                                           |  |  |
| 13 December 2022<br>Accepted:<br>29 December 2022         | <b>Method</b> – A bibliometric study using Zupic and Carter models was chosen as the basis for conducting the research. The research data were 1387 articles indexed by Scopus and Google Scholar which were filtered using the Publis or Perish. The compiled article data was then analyzed using VOSviewer to identify visualizations. |  |  |
| Keywords:<br>Flipbooks, bibliometrics,<br>current topics. | <b>Result</b> - The results show that e-module is the most widely used teaching material for flipbooks, while interactive flipbooks and e-worksheets are alternative topics in the development of flipbook media.                                                                                                                         |  |  |
|                                                           | Implication – This study suggests that educators in tertiary institutions or future researchers are more innovative and varied in developing learning resources and learning media.                                                                                                                                                       |  |  |
|                                                           | <b>Originality</b> – this research is the first study that tries to discuss the novelty of the flipbook research topic.                                                                                                                                                                                                                   |  |  |

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| <b>Keywords:</b><br>Flipbook; bibliometrik; topik<br>terkini. | Abstrak                                                                                                                                                                                                                                                                                                                                                                             |      |
|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
|                                                               | <b>Tujuan</b> — Tujuan penelitian ini adalah untuk memetakan topik-topik yang relevan<br>yang mendukung pembaharuan topik penelitian tentang pengembangan media<br>berbasis flipbook.                                                                                                                                                                                               |      |
|                                                               | Metode - Studi bibliometrik dengan menggunakan model Zupic dan Carter dipilih<br>sebagai dasar pelaksanaan penelitian. Data penelitian berupa 1.387 artikel yang<br>terindeks Scopus dan Google Scholar yang disaring menggunakan perangkat lunak<br>Publis or Perish. Data artikel yang terkumpul kemudian dianalisis menggunakan<br>VOSviewer untuk mengidentifikasi visualisasi. | JAGC |
|                                                               | Hasil - Hasil penelitian menunjukkan bahwa e-modul merupakan bahan ajar yang<br>paling banyak digunakan untuk flipbook, sedangkan flipbook interaktif dan e-<br>worksheet menjadi topik alternatif dalam pengembangan media flipbook.                                                                                                                                               |      |
|                                                               | Implikasi - Penelitian ini menyarankan agar para pendidik di perguruan tinggi atau<br>peneliti selanjutnya lebih inovatif dan variatif dalam mengembangkan sumber<br>belajar dan media pembelajaran.                                                                                                                                                                                |      |
|                                                               | Orisinalitas - Penelitian ini merupakan penelitian pertama yang mencoba<br>membahas kebaruan topik penelitian flipbook.                                                                                                                                                                                                                                                             |      |

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## Introduction

The Preamble to the 1945 Constitution of the Republic of Indonesia mandates the Government of the Republic of Indonesia to protect the entire Indonesian and the entire homeland of Indonesia and to promote public welfare, educate the nation, and participate in the implementation of the world order based on independence, eternal peace, and social justice. (Preamble to the Constitution of the Republic of Indonesia, 1945)

The purpose of national education as stated in the Law of the Republic of Indonesia Number 20 of 2003 Article three (3) concerning the National Education System is to develop capabilities and to shape the character and the civilization of a dignified nation in the context of educating the nation, aiming at developing the potential of students to become a human being who believes and fears of God Almighty, has a noble character, healthy, knowledgeable, capable, creative, independent, and becomes a democratic and responsible citizen. (Law of the Republic of Indonesia Number 20, 2003). The curriculum in Indonesia is undergoing renewal based on the mandate contained in the opening of the 1945 Constitution and also the goals of national education itself, starting from the post-independence curriculum in 1947 to the 2013 curriculum, it is character strengthening education (PPK) (Amanabella, 2019).

According to Presidential Regulation Number 87 (2017), it is stated that Strengthening Character Education, hereinafter abbreviated as PPK, is an educational movement under the responsibility of the education unit to strengthen the character of students through the harmonization of the heart, feeling, thought, and sports activities with the involvement and cooperation of education, family, and community units as parts of the National Movement for Mental Revolution (GNRM) (Ariska, 2020)

Strengthening Character Education (PPK) as referred to in Presidential Regulation Number 87 of 2017 above explains that Character Strengthening Education (PPK) is the responsibility of the education unit where educational services are built to provide education on formal, non-formal, and informal channels at every level and type of education to strengthen the character of students through the alignment of emotional and spiritual development, intellectual development, physical and kinesthetic development, and affective development by involving educational units, family and society.

The application of Character Strengthening Education (PPK) is carried out in education units in Indonesia through formal, non-formal, and informal education. Formal education based on Presidential Decree Number 87 of 2017 is a structured and tiered educational path consisting of basic education such as elementary school level (SD) or *madrasah ibtidaiyah* (MI) and secondary education such as junior high school level (SMP) or *madrasah tsanawiyah* (MTs) and high school (SMA) or vocational high school (SMK) or *madrasah aliyah* (MA) levels. While nonformal education is an educational path outside formal education that can be carried out in a structured and tiered manner such as through tutoring institutions, training institutions, or courses. Meanwhile, Informal Education is a path of family and environmental education such as parenting in the family and customs in society.

The objectives of the application of Character Strengthening Education (PPK) as stipulated in Presidential Regulation Number 87 of 2017 article two (2) including building and equipping students as the golden generation of Indonesia in 2045 with a good soul and character education to face the dynamics changes in the future; develop a national education platform that places character education as the main soul in providing education for students with the support of public involvement through formal, non-formal and informal education with due regard to the diversity of Indonesian culture; and revitalize and strengthen the potential and competence of the educators, education staffs, students, communities, and the family environment in implementing KDP. (Perpres Number 87, 2017)

Application of Character Strengthening Education (PPK) as stated in Permendikbud Number 20 of 2018 Article one (1) concerning Character Strengthening in Formal Education Units, applying values in character education, especially religious values, honesty, tolerance, discipline, hard work, creativity, independent, democratic, curiosity, national spirit, love for the nation, appreciate achievement, communicative, peaceful, love to read, care for the environment, care about social, and be responsible. As for Article two (2), it is clear that the values contained in Article one (1) are the embodiment of 5 (five) interrelated main values, namely religiosity, nationalism, independence, mutual cooperation, and integrity which are integrated with the curriculum. (Permendikbud Number 20, 2018)

According to the Ministry of Education and Culture (2017), the five main character values are religion, nationalism, integrity, independence, and mutual cooperation. Religious character values reflect faith in God Almighty which is manifested in the behavior of carrying out religious teachings and beliefs, respecting religious differences, upholding a tolerant attitude towards the implementation of religious worship and other beliefs, and living in harmony and peace with adherents of other religions. The implementation of these religious character values is shown in an attitude of love for peace, tolerance, respect for differences in religion and belief, firm stance, self-confidence, cooperation between adherents of religions and beliefs, anti-bullying and violence, friendship,

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sincerity, not forcing the will, loving the environment, and protecting the weak and marginalized (Azzet, 2011).

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Nationalist character values are ways of thinking, behaving, and acting that show loyalty, concern, and high appreciation for the language, physical, social, cultural, economic, and political environment of the nation, placing the interests of the nation and state above the self-interests and their groups. The character of integrity includes an attitude of responsibility as a citizen, actively involved in social life, through consistent actions and words based on the truth. The value of independent character is the attitude and behavior of not depending on others and using all energy, thought, and time to realize hopes, dreams, and ideals. The value of the *gotong royong* (teamwork) character reflects the act of appreciating the spirit of cooperation and working together to solve common problems, establish communication and friendship, and provide assistance/help to people in need. It is expected that students can show respect for others, be able to work together, be inclusive, be able to commit to joint decisions, reach consensus, be helpful, have empathy and a sense of solidarity, be anti-discrimination, anti-violence, and volunteerism.

Of the five main character values above, each character value interacts and develops dynamically and forms a complete personality for students. The implementation of Character Strengthening Education (PPK) in formal education units, as referred to in Permendikbud Number 20 of 2018 Article 5 (five), it maximizes three educational centers including schools as formal education units, families, and communities.

According to Permendikbud Number 20 (2018) Article 5 (five), also states that optimizing the implementation of KDP by families is carried out through joint activities and family involvement in schools, homes, and the community. While optimizing the implementation of KDP by the community is carried out through the involvement of individuals, community groups, and/or institutions.

Adaptation in facing the challenges of the times is absolutely carried out by all fields of life, including the field of Higher Education (PT). As an answer to changes in social, cultural, and work realms, and rapid technological advances, the MBKM

curriculum offers a solution to create competent student graduates, in terms of both *soft skills* and *hard skills*. (Belmawa Kemendikbud, 2021). Through the MBKM curriculum, all tertiary education personnel is required to be able to design and apply autonomous and flexible learning. Therefore, the development of learning tools that are innovative, unfettered and in accordance with the needs of students is mandatory.

The development of the learning tools in question needs to facilitate the current learning model that combines synchronous and asynchronous learning, either in the form of *hybrid learning* or *blended learning*. (Khamparia & Pandey, 2017; Rao, 2019; Syawaludin, 2022). In addition, the learning tools developed also need to meet effective and efficient elements (Linebarger, 2015). Effective in terms of content means that it is presented in a complete, detailed and thorough manner. Meanwhile, efficiency means ease and speed of use. This means that with one click, students can get the material they want, making it easier for students to find and understand the content of the material.

Considering the various needs of the learning devices above, it is necessary to have a learning device that can meet all these needs: *Useable* for all learning models, *compatible* with all laptops, computers, or smartphone devices, as well as effective and efficient for use by lecturers and students (Linebarger, 2015). The learning tools in question are *Flipbook-based media*.

Flipbook-based media is one of the breakthroughs that bring conventional learning media to a higher level (Rama et al., 2022; Situmorang, Yustina, & ..., 2020). Instead of reading material that is full of text, flipbook-based media offers a reading experience accompanied by videos, audio, URL links, and 3D animations that pamper the readers. This is useful if applied in the field of Education which emphasizes independent learning. Students can study independently whenever and wherever they want using the media that has been prepared (Situmorang, Yustina, & ..., 2020). Students also don't need to worry about being confused about the learning materials, because in this media, there are video-audio learning services, question-and-answer links, discussion forums, and enrichment quizzes that can be used to improve students' understanding. Therefore, the development of *Flipbook-based media* becomes an interesting topic to research.

Furthermore, statements about the attractiveness of the *flipbook development topic* need to be scientifically proven. This is because there are quite a lot of research topics around the development of *flipbook media* around the world. The results of a preliminary study using the Publish or Perish v.8 software show that there are more than 1,000 indexed articles by Scopus and Google Scholar that have studied topics related to *flipbooks* from 2018 to 2022. Where more than 900 article titles discuss relatively the same themes, namely the development of *flipbook*-based media. Even though the material aspects and the field of education are generally different, it is necessary to question whether the development of *flipbook-based media is* still relatable to research or not.

Referring to the entire background of the research, the purpose of this research is to map and analyze topics around *flipbooks* and new topics that have a novelty level and are interesting to study, so that they can support learning in higher education.

## **Research Method**

This study used a bibliometric study design by adopting a five-stage approach from Zupic and Čarter, including study design, data collection, data analysis, visualization, and interpretation (Zupic & Čater, 2015). In order to get an accurate picture related to the flipbook topic, this bibliometric study requires assistance from other software, such as *Publish or Perish* V.8 to identify Scopus and Google Scholar-indexed articles that discuss *flipbooks*, as well as VOSViewer. V. 1.6.18.0 to see the relationship between *terms* that have been identified.

In general, the articles selected in this study are articles published from 2018 to 2022, so the topics raised from the majority of these articles are relatively *up-to-date*. *First,* the research process begins by designing a study through descriptive analysis related to the themes and keywords of the relevant indexed articles, to get an overview of the metrics of this research. *Second,* data collection of articles indexed by Scopus and Google Scholar uses the Publish or Perish V.8 software. The search strategy applied is to enter keywords in the form of *flipbooks,* learning media, and guidance and counseling media in the Publish or Perish V.8 search engine.

*Third,* data analysis was carried out after the identification process in the second stage was completed. Based on the process in the second stage, a total of 1387 articles were obtained which were then analyzed using the VOSViewer V. 1.6.18.0 software. *Fourth,* data visualization appears after the data analysis process completes. Referring to the VOSViewer results, various *term relationships will appear* that are interconnected to form a net between one topic and another. *Fifth,* interpretation is the final stage which is carried out as a step to describe and explain interesting findings that can become novelties for further research.

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## **Results and Discussion**

Referring to Figure 1 regarding *density visualization*, it can be seen that research on *flipbooks* generally shows a tendency that the majority of written works developed into *flipbooks are e-modules*. The brighter (yellow) the color of the topic, the more often that topic is researched. This is certainly a gap for future researchers to use other types of writing in *flipbook development research topics, for* example, *handbooks, guidebooks, tutorials, books,* encyclopedias, dictionaries, and many others. Therefore, the media developed is more varied and has an element of novelty.

|                    | work                                               |                              |                                                   |
|--------------------|----------------------------------------------------|------------------------------|---------------------------------------------------|
| flipbook n         | digital book<br>maker application                  |                              | interactive flipbook                              |
| e worksheet        |                                                    | ipbook maker                 | penelitian                                        |
|                    | form<br>product research                           | feasibility digital flipbook | surabaya                                          |
|                    | application developmen<br>study med                | dia                          | sekolah dasar metode                              |
| e flipbook<br>page |                                                    | flipbook                     | xi sma<br>problem siswa belajar<br>respon         |
| assessmer          |                                                    | validator                    | e modul prakti<br>e modul ipa                     |
|                    | analysis teaching                                  | multimedium                  | pengembangan modul elektronik<br>modul elektronik |
| social medium      | covid<br>pandemic <sup>online learning</sup> video | kota                         |                                                   |
| Jorian media       | effectiveness<br>science learning                  | technology science           |                                                   |

Figure 1. Density visualization of the frequency level of flipbook research topics

These findings suggest to lecturers, especially guidance and counseling lecturers, to be more varied in compiling teaching materials and teaching media

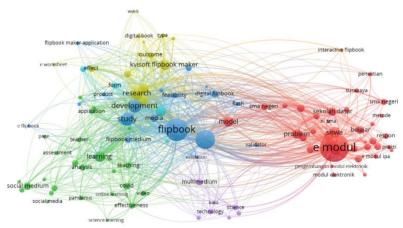
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given to students. Teaching materials do not have to only use modules. Lecturers can use other teaching materials such as *tutorial books* if the material is related to practicum courses, *handouts* that can be used as a guide for student material in conceptual courses, or even *audio programs* that can be heard and played by students. In line with this explanation, educators need to better adjust the teaching materials used with the learning objectives in the classroom, because teaching materials are very influential in efforts to solve student learning problems (Umar Abdulkadir et al., 2021). Educators also need to be more varied in applying teaching materials in learning, considering that teaching materials have quite a lot of types such as text, *audio*, or a combination of *audio-visual* (Magdalena et al., 2020).

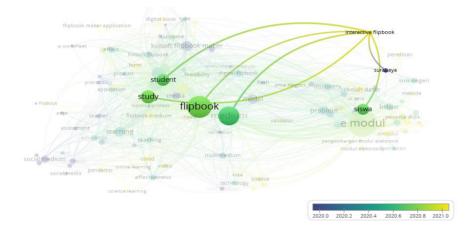
*Flipbook* research topics can not only be seen in terms of variations in teaching materials. Referring to Figure 2, a number of topics that have a fairly distant relationship can be seen, for example in *interactive flipbooks* and *e-worksheets*. This sufficient distance in the relationship indicates that not many researchers are interested in studying these two topics. Though these two topics can be a differentiator from other research.



#### Figure 2. Network visualization of connections between research topics

In addition, based on Figure 3, the renewal of the research topic can be seen based on the color gradation from blue to yellow. The yellower the color of the topic shown, the more *up-to-date* the research topic is. Based on the results of the

VOSviewer analysis, it can be seen that the *interactive flipbook* topic is classified as an interesting contemporary topic to study. As for the small circle size, this shows that this topic is still very rarely studied. So it can be interpreted that the *interactive flipbook* topic is a topic that has high novelty.



#### Figure 3. Overlay visualization of current topics that have not been widely studied

Foster children who score high on social anxiety tend to experience social avoidance compared to those who have moderate or low social anxiety scores. Social anxiety occurs as a result of weak social networks, lack of social support, and lack of warmth and attention from those closest to them. The family environment is one of the places in introducing the values that underlie individuals to carry out wider social relationships. This is also motivated by the availability of time, experience, education, and the interests of the parents.

The conditions experienced by foster children who have to live together in orphanages or childcare institutions continue to progress toward maturity with the existing limitations. Limitations of parenting or other things that can limit the less-than-optimal range of motion can cause *stress* and anxiety conditions. Parenting patterns for foster children are expected to remain an alternative to family care so that children's development can develop in accordance with their level of development. The function of child socialization in the family is an important element in the care provided to children.

Conceptually, *an interactive flipbook* is a learning device that fulfills interactive multimedia elements, including text, graphics, video, audio, animation, and interactivity (Pavithra et al., 2018; Swerdloff, 2016). With these elements, the teaching resources developed are much more interesting when compared to *flipbooks* based on text only (Solikhatun & Widihastrini, 2018). Furthermore, the development of *interactive flipbooks* also supports distance learning and independent learning (Rosado Martin et al., 2016). Through learning resources that are designed with complete features, such as materials, audio programs, learning videos, quizzes, and enrichment, it will make it easier for students to learn anytime and anywhere (Rosado Martin et al., 2016; Situmorang, Yustina, & Syafii, 2020). Therefore, as a form of novelty, *an interactive flipbook research topic* can be a choice that can be developed by researchers.

## Conclusion

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The topic of *flipbook-based media development* is not a new variable for researchers in the last 5 years. However, this does not mean that this topic cannot be explored further so it has novelty value for further research. Based on the results of the analysis, interpretation, and discussion of this bibliometric study can be concluded that other types of writing other than e-modules can be an alternative in future *flipbook development research*. Finally, so that the flipbook-based media developed is not *monotonous*, further research can develop interactive multimedia-based *flipbook* media, by combining audio, text, video, materials, and even worksheets for students.

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