Puberty Hypercontent Book, Expert and Community Responses

Nurfadhilah*  
Fakultas Kesehatan Masyarakat  
Universitas Muhammadiyah Jakarta  
Kota Tangerang Selatan, Indonesia  
*nurfadhilah.nf@umj.ac.id

Erryo Utomo, Amos Neolaka  
Program Pascasarjana  
Universitas Negeri Jakarta  
Jakarta, Indonesia

Abstract—A hypercontent book, entitled Puberty: Ready to Face It, was prepared as a guide for elementary school teachers in delivering lessons regarding puberty. The material is often still considered taboo and too vulgar to be taught to students, even though this is very important and urgent for them to know to cope with the adolescence. The goal of the development of the book is to provide the readers an attractive and comprehensive learning media as a guide for teachers in teaching the puberty material to the fourth-grade students at the elementary school level. The material drafting team was from Jakarta Muhammadiyah University collaborating with Jakarta State University. Since the first launch of the book in April to May 2020, there were 24 responses received from the primary school teachers and 8 responses from the subject material experts, linguists, and media experts. This book eventually needs some revisions in accordance with the mentioned responses coming from the community and experts so that it can be more deliverable. The book is potentially applied at elementary schools in Indonesia, and become one of future model learning media.

Keywords—puberty, elementary school, hypercontent

I. INTRODUCTION

The lack of understanding and knowledge of Indonesian adolescents about specific sign of puberty [1] still an issue even though there is already an excessive internet access (information). Teachers as educators in schools apparently have different perceptions from their students [2] related to the discussion of puberty topic, both in its specific material and learning method.

Hypercontent book is a form of future book because it accommodates the needs of the students towards expected varied learning sources so that the learning process runs more interesting and attractive. The role of the teachers in this learning is as resource linkers and to ensure the learning process remaining within the framework of the learning objective. The type of book applies the principle of independent learning by utilizing the development of communication and information technology. Some interventions in education and health, especially for behavior changes, have utilized various existing internet-based applications and learning [3–7] and the type of hypercontent book is an alternative which is still rarely applied in Indonesia.

The contents in this book include 7 materials consisted of 1) preparing, 2) getting to know yourself, 3) the nature of men, 4) the nature of women, 5) self potential, 6) self-control, and 7) adolescent of champions. The book has obtained a registration document of copyrights with registration number 000184196 and its application date was 15 April 2020.

The objective of the development of this hypercontent book is to provide an attractive and comprehensive alternative learning media for the teachers so they can use it as a teacher's guide in teaching puberty material to their students, especially the Fourth Grades at the elementary school level. The book developed by a team consists of lecturers and students from Jakarta Muhammadiyah University and Jakarta State University. It can be used in the learning process engagement, especially in the Covid-19 pandemic situation which requires the learning take places at home with the utilization of digital materials.

The potential beneficial of the research result will be applied in elementary schools in Indonesia, together with the students’ hypercontent book entitled Remaja Juara (the development of the students' book sponsored by The Center of Curriculum and Books, Ministry of Education and Culture Republic of Indonesia. Hypercontent book is relatable suitable with online learning as well as offline learning, while the teachers role as resources linkers is highly needed.

II. METHODS

This research was part of research and development, focused on validity and comprehension testing. The Hypercontent book was distributed at the same time when questionnaire link was distributed at https://fkm.umj.ac.id/launch-buku_pubertas-siap-menghadapi/. The questionnaire was also filled out online. The study conducted on April to July 2020.

Firstly, validation of the Puberty Hypercontent Book, Ready to Face It, involved 3 material experts, 3 linguists, and 2 media experts. Once the experts agreed to become the validators, and the questioner were sent via e-mail or social
media chat. The book then revised according to the input from all of the validators.

Secondly, 24 primary school teacher were given the e-book and asked for their response in a series of virtual and face-to-face discussion. The questionnaire contained characteristic information including name, gender, age, and education being taken. The data regarding the experience of providing education about puberty and the ownership of a guideline was also taken.

III. RESULTS AND DISCUSSION

Community responses was almost 90% coming from female respondents, aged older than 20 years, and still taking education in university or already graduated from university (tertiary level). Although they generally did not teach for the Fourth Graders in Elementary School, most of the respondents said that they provided puberty education in elementary school and already had a guideline book. Most of the respondents said that the book that they owned previously was not in accordance with their needs and at the same time they got challenges and difficulties to deliver topic related to puberty. All respondents felt that they needed an alternative media as a teacher guidance.

Most respondents gave good rate to the Puberty Hypercontent book, Ready to Face it, as a book with a complete content/material and its explanation was systematic, easy to understand and had attractive display (Figure 1 and 2).

All the experts, linguists, material/content, and the media stated that the Puberty book, Ready to Face it, deserved for some tests with revisions, while two content experts stated that the book deserved for the test without any revision. The points of assessment covering the use of language grammar, terms, appropriateness (simple and direct to the target), communicative, and spelling accuracy in general were considered good/right/clear and very good/precise/clear. Some notes were given including the consistent use of the term, for example, male or men; the use of punctuation; and unnecessary word usage.

The content assessment included the completeness, breadth and depth of the material; accuracy of concept, data, facts, examples, illustrations, symbols, and references; reasoning, related with real situation; improving the communication process, the attractiveness of the material, encouragement for more advance information, and the compatibility of the material with the development of science. Some suggestions given included the addition of illustration in the form of pictures and writing of library sources in the cited sentence.
they can be able to (choose to) behave in a healthy and responsible manner, specifically with the abstinence or sex absence [8]. The needs for puberty education and abstinence were very urgent to anticipate demographic bonus and to achieve the vision of 2045 Golden Generation [9–11]. However, the current situation showed that there were still challenges coming from both teachers and parents when discussing the topics of puberty and sexuality were arise [12]. The adolescent reproductive behaviors which still required attention and also the unopenness to the teachers and the parents were still unresolved problem [1,13,14]. With this book there was an expectation that it can bring an impacts on educational efforts to face with complex adolescence.

The components of media assessment included its relevance to the competency that the students must master, the completeness of the material and its illustrations in accordance with the students’ development, as well as curiosity encouragement, group learning, and interaction for the teachers. Some notes for the improvement were by adding the learning objective of each topic and adding the material of call to action oriented.

The students at the elementary school level have distinctive characteristics so that it becomes a challenge for the teachers. Education, whereas, is the development of the students’ character to form their current and future behavior. Potential conflict and misconception between teachers and students often occur, especially when discussing sensitive topics such as puberty [2,15].

The students are digital natives, however, their high access to the Internet has not brought much impact on their knowledge development. Therefore, this opportunity needs to be developed for the field of health education, especially for adolescents. Smartphone or cellular phone-based intervention in various studies have proven to be effective in the efforts to change health behavior [5,7,16] and education [4,17]. The students at the current time rely heavily on devices in their daily learning process and other activities, especially during Covid-19 pandemic nowadays. High access to smartphones and its applications opens wide opportunities for educators to utilize and develop applications to support their student’s growth and development process (Figure 3). The involvement of the parents in learning processes can also support the optimal learning outcomes.

![Fig. 3. Material completed with QR code connected with various learning sources.](image)

Implication of this study for policy implementation is the application of hypercontent book at elementary school, especially for higher grades. The Puberty book as guidance for the teacher shall be completed with student’s book, and by this time it is being developed by a team consists of UMJ, UNJ, and puskurbuk (curriculum and book center) Ministry of Education and Culture.

### IV. CONCLUSION AND SUGGESTION

The Puberty Hypercontent Book, Ready to Face It, received positive responses from the community and experts. Some suggestion or inputs need to be followed up immediately for the improvement of the book. In the future, it is expected that the book can be utilized by teachers in the provision of guidance to deliver material related to puberty to the Fourth Graders in elementary school level. With this book it is hoped that there will be no more teachers or educators who feel that the topic of puberty is still too vulgar and taboo for discussion so that there will no more students losing opportunity to understand the normal processes occurring in themselves.

In addition to the teacher's handbook, there is also the need for the students’ handbook that is developed across disciplines so that results can be more complete/comprehensive. The undertaken development process must consider learning...
resources and existing resources and are in line with the values and norms adopted in Indonesia.

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REFERENCES

[1] BPS, BKKB, Kemenkes, and USAID, “Survei Demografi dan Kesehatan Indonesia 2017 Kesehatan Reproduksi Remaja,” Survei Demografi dan Kesehat. Indones., vol. 28, no. 12, pp. 1407–1408, 2017, doi: 10.1016/B978-0-12-804024-9/00048-3.
[2] E. Utomo, Nurfadhilah, O. S. Hidayat, J. W. Wicaksono, and A. Arif, “The Misconception of Teacher’s and Student’s Knowledge Regarding Puberty in Higher Elementary Education,” in International Conference on Humanity, Education, and Social Study, 2019, p. 8.
[3] J. Jafari, H. K. Moonaghi, N. Zary, and I. Masiello, “Exploring educational needs and design aspects of internet-enabled patient education for persons with diabetes: A qualitative interview study,” BMJ Open, vol. 6, no. 10, pp. 1–7, 2016, doi: 10.1136/bmjopen-2016-013282.
[4] N. Long, R. E. Long, and S. Lawrence, “The use of a mobile app in teaching beef cattle body condition scoring in undergraduate classes,” Clemson, SC, 2018.
[5] S. Mummah, T. N. Robinson, M. Mathur, S. Farzinkhou, S. Sutton, and C. D. Gardner, “Effect of a mobile app intervention on vegetable consumption in overweight adults: a randomized controlled trial,” Int. J. Behav. Nutr. Phys. Act., vol. 14:125, no. 2017, pp. 1–11, 2017, doi: 10.1186/s12966-017-0563-2.
[6] S. Nifakos, T. Tomson, and N. Zary, “Combining Physical and Virtual Contexts through Augmented Reality: Design and Evaluation of a prototype using drug box as marker for antibiotics’ training,” Peerj-preprint, vol. 2:e697, no. December, 2014.
[7] N. B. Rajani, D. Weth, N. Mastellos, and F. T. Filippidis, “Use of gamification strategies and tactics in mobile applications for smoking cessation: a review of the UK mobile app market,” 2019, doi: 10.1136/bmjopen-2018-027883.
[8] E. R. Buih, P. Goodson, T. B. Neilands, and H. Blunt, “Adolescent sexual abstinence: A test of an integrative theoretical framework,” Heal. Educ. Behav., vol. 38, no. 1. pp. 63–79, 2011, doi: 10.1177/1090198110375036.
[9] Nurfadhilah, Analisis Situasi Bonus Demografi Indonesia, 1st ed. Jakarta: FKK UMJ, 2017.
[10] Nurfadhilah, “Analisis Pendidikan Karakter Dalam Mempersiapkan Pubertas Menuju Generasi Emas Indonesia 2045,” J. Pendidik. Dasar, vol. 10, no. 1, pp. 85–100, 2019, doi: 10.21009/10.21009/JPD.081.
[11] Nurfadhilah, E. Utomo, and A. Neolaka, “Pendidikan Abstinensi dalam Kurikulum Pendidikan Dasar Indonesia,” J. Pendidik. Dasar, vol. 1, no. 31 Mei 2020, p. 12, 2020.
[12] D. Lailani, Nurfadhilah, and E. Utomo, “Pendidikan Seks pada Anak oleh Ibu, Survei di Kelurahan Pondok Betung 2019,” in Wahan Indonesia Sekolah Dasar, 2019, p. 7.
[13] Nurfadhilah and A. R. Ariash, “Abstinensi dan Pendidikan Seks Remaja: Survei Cepat di Jakarta dan Sekitarnya,” Pendidik. Lingkung. dan Pembang. Berkelanjutan, vol. XX, no. Maret 2019, pp. 17–28, 2019.
[14] A. W. Pinandari, S. A. Wilopo, and D. Ismail, “Pendidikan Kesehatan Reproduksi Formal dan Hubungan Seksi Pranikah Remaja Indonesia,” Kesmas Nati. Public Heal. J., vol. 10, no. 1, p. 44, 2015, doi: 10.21109/kesmas.v10i1.817.
[15] T. W. Kinkopf and C. Casey, “Character Education: Teachers’ Perceptions of its Implementation in the Classroom,” Delta J. Edu., vol. 6, no. 1, p. 1–16, 2016.
[16] Y. Fang, Y. Ma, D. Mo, S. Zhang, and M. Xiang, “Methodology of an exercise intervention program using social incentives and gamification for obese children,” pp. 1–11, 2019.
[17] S. V. Dovbnya, I. P. Martinez-Vega, C. Infante-Castaneda, and R. Perez-Cuevas, “Effects of an internet-based educational intervention to prevent high-risk sexual behavior in Mexican adolescents,” Health Educ. Res., vol. 32, no. 6, pp. 487–498, 2017, doi: 10.1093/her/cyx074.