



Building Healthy Child Leaders Training E-Module: Training Materials for Mentors

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ARTICLE INFO

Article history:

Received September 20, 2021

Revised September 22, 2021

Accepted January 12, 2022

Available online February 25, 2022

Kata Kunci:

E-modul, Pemimpin Anak, Pelatihan, Mentor

Keywords:

E-module, Child Leaders, Training, Mentors

DOI:

<https://dx.doi.org/10.23887/jet.v6i1.42008>

ABSTRAK

Membangun “pemimpin anak yang sehat” membutuhkan orang dewasa yang bertindak sebagai mentor. Permasalahannya adalah kurangnya bahan dan pelatihan bagi mentor. Penelitian ini dimaksudkan untuk membuat desain, melakukan uji kelayakan (validasi), membuat dan menerapkan e-modul pelatihan “Building Healthy Child Leaders” bagi mentor. Jenis penelitian yang digunakan adalah *research and development* dengan mengkombinasikan prosedur pengembangan model Sugiyono, model ADDIE dan model evaluasi Kirkpatrick. Subjek penelitian: 1) untuk tahap awal adalah manajer, mentor dan koordinator FC; 2) untuk uji coba terbatas adalah mahasiswa STAK; dan 3) untuk uji coba pemakai adalah mentor FC Yayasan PESAT. Data kuantitatif diperoleh melalui angket dan tes, sedangkan data kualitatif diperoleh dari wawancara, observasi dan dokumentasi. Data kualitatif dianalisis dengan Miles & Huberman. Data kuantitatif dianalisis dengan analisis statistik deskriptif. Hasil penelitian berupa produk e-modul pelatihan HCL yang 1) memenuhi kriteria “Sangat Valid” ($> 80\%$) dari 3 validator ahli; 2) tanggapan peserta pelatihan terhadap kualitas e-modul “Sangat Baik” ($>80\%$); 3) Respon terhadap pelaksanaan pelatihan “Sangat Efektif” ($>80\%$); dan 4) analisis statistik inferensial dengan uji Paired T Test menunjukkan nilai sig. (2-tailed) sebesar $0,000 < \alpha(0,05)$, maka H_0 ditolak, artinya e-modul memberikan pengaruh yang signifikan sebelum dan sesudah pelatihan. Jadi, e-modul pelatihan HCL yang dibuat memenuhi kriteria “sangat valid” dan “Sangat Efektif” untuk digunakan melatih para mentor. Implikasinya, mentor memiliki dasar, keterampilan dan kesempatan belajar mandiri untuk membangun pemimpin anak yang sehat.

ABSTRACT

Building Healthy Child Leaders requires adults to act as mentors. The problem was the lack of materials and training for mentors. This research was intended to design, validate, create and implement a Building Healthy Child Leaders training e-module for mentors. The type of research used was R&D (research and development) by combining the Sugiyono, ADDIE and Kirkpatrick evaluation models. Research subjects for: 1) the initial stage were managers, mentors and FC coordinators; 2) the limited trial was STAK students; and 3) user trial was PESAT Foundation FC mentors. Quantitative data was obtained through questionnaires and tests, while qualitative data was obtained from interviews, observation and documentation. Qualitative data were analyzed by Miles & Huberman. Quantitative data were analyzed by descriptive statistical analysis. The results of the research were an Healthy Child Leaders training e-module product that met the Very Valid criteria ($> 80\%$) from 3 expert validators; training participants' responses to the quality of the e-module was “Very Good” ($>80\%$); response to the implementation of the training was “Very Effective” ($>80\%$); and inferential statistical analysis with Paired T Test showed sig. (2-tailed) of $0.000 < \alpha(0.05)$, meaning that the e-module had a significant effect before and after training. So, the Healthy Child Leaders training e-module that was created met the criteria of Very Valid and Highly Effective to be used to train mentors. The implication is that mentors have the foundation, skills and opportunities for independent learning to build healthy child leaders.

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1. INTRODUCTION

Leadership is one of the most important organizational organs because the success and impact of the organization is largely determined by the presence of quality leaders (Webber, 2019; Nurmiyanti & Candra, 2019; Kiersch & Peters, 2017). Leadership is the ability, process and art to exert influence that moves others to achieve stated goals (Salsabiela, 2021; Djafri et al., 2020; Richard et al., 2019; Vito, 2019). The big challenge faced by many organizations is the lack of leaders and the quality of existing leaders (Cahyaningrum, 2015; Haber-Curran & Sulpizio, 2017; Nurmiyanti & Candra, 2019). The health of the organization is determined by

the health of its leaders both in quantity and quality. Therefore, building and developing leaders is an important issue that leaders need to think about now (Webber, 2019; Jennifer Jones-Morales, 2018; Kwok et al., 2021; Winingsih & Sulistiono, 2020). Leaders have a responsibility to build healthy new leaders. Building leadership can be done early on through children (Karagianni & Jude Montgomery, 2018; Berg & Winther, 2021; Wang et al., 2020). The formation of a leadership spirit in children can be done as early as possible by helping children to recognize themselves, recognize the potential that God has given then equip children by training them with good habits that will later shape their character as a healthy leader (Rodiyana & Puspitasari, 2019). Building children's leadership from an early age places children as a source of future solutions because in 2040, Indonesia will enter a period of "The windows of Opportunity" (Jarot Wijanarko, 2016; Adioetomo, 2018). The decisions of organizational leaders today will determine what will happen in the future.

Building children's leadership requires mentors who facilitate and influence children's leadership (Wang et al., 2020; Herwinesastra, 2019)(Jennifer Jones-Morales, 2018). Mentors who facilitate children's efforts to become leaders will foster confidence in children in developing their leadership and encourage children to practice being leaders. Mentoring with various innovations is very necessary in building children's leadership because it will provide great benefits for children in the future (Fox et al., 2015; Hall & Liva, 2021; Weaver et al., 2021). Based on this, the role of mentors is important and demands the empowerment of mentors, which can be done through training so that the knowledge, skills and skills possessed can be improved so that organizational goals can be achieved (Rusdiana, 2018; Widodo, 2018; Wang & Ho, 2020; Elshaw et al., 2018).

The industrial revolution 4.0 is marked by great technological developments and opens up opportunities for the development of learning or training through "mobile learning", using PCs, tablets and smartphones (Astalini et al., 2019; Yulando et al., 2019; Fadieny & Fauzi, 2021). Internet-based or online learning is more flexible so that it provides opportunities to learn "anytime and anywhere" (Cholifah, 2020; Astalini et al., 2019; Vanorika et al., 2016; Susanti & Sholihah, 2021). The COVID-19 pandemic that occurred seemed to "force" educators and trainers to innovate by utilizing digital technology that is focused on internet-based or online learning (Mustakim, 2020; Andayani, 2020; Rahmatsyah & Dwiningsih, 2021; Mohebi & Meda, 2021). One form of innovation in learning and training is the creation of e-modules. E-modules are electronic digital learning materials that are systematically arranged based on the needs of students and curriculum (Trilestari & Almunawaroh, 2021; Vanorika et al., 2016; Riwu et al., 2019). The presence of e-modules does not mean shifting the role of trainers but as a complement that enriches training participants because of the many advantages that exist in training materials in the form of e-modules (Astalini et al., 2019; Susanti & Sholihah, 2021; Trilestari & Almunawaroh, 2021; Simamora et al., 2019). The advantages of e-modules include: 1) can be accessed via PC or smartphone; 2) encourage independent learning at their own pace; 3) the availability of quizzes for interactive questions; 4) come up with original tasks; 5) become a companion material for preparation and evaluation independently; 6) efficiency in the use of paper; 7) many interesting features such as interactive video, audio, animation as well as pictures and quizzes (Simamora et al., 2019; Vanorika et al., 2016; Asmi et al., 2018).

The important thing that needs to be considered in developing an e-module is how to process the feasibility test or validation and test its effectiveness. E-modules that meet eligibility or validity are good e-modules to be used as training or learning materials (Lestari & Parmiti, 2020; Yulando et al., 2019; Fadieny & Fauzi, 2021; Perdana et al., 2017). The process or method used to design, validate and develop a product and conduct trials on the resulting product is the definition of research and development (Research and Development - R&D) (Sugiyono, 2019; Fadieny & Fauzi, 2021; Setyosari, 2020). Therefore, the manufacture of e-modules needs to follow research and development (R & D) procedures because the validation/testability and effectiveness process is contained in the research and development procedures (Rahmatsyah & Dwiningsih, 2021; Rahayu, 2020; S. Arikunto, 2019).

PESAT Foundation as part of the nation's potential established a non-formal education Future Center in an existing formal education center. Non-formal education is as important as formal education because it functions as a means of developing potential in terms of knowledge, skills, attitudes and personality (W. Widodo et al., 2021; Prasetya, 2021). Future Center (FC) as a form of non-formal education was a program to build healthy child leaders at the age of 0-18 years by synergizing and balancing holistic goals, dynamic processes and leadership design in children. Preliminary research conducted on FC managers, supervisors and coordinators found that the implementation of the program to build "healthy child leaders" was not optimal. This was because 90% of mentors have not attended training to build "healthy child leaders", mentors who have attended training received materials in the form of: 50% PPT printouts, 40% PPT softcopy and 30% did not receive materials after completing the training. The COVID-19 pandemic had made 30% of mentors very difficult and 60% difficult to implement programs to build "healthy child leaders". Based on FC documentation from the PESAT Foundation, it was found that FC's non-formal education is spread across several regions, across provinces and islands, so that it requires large costs if the training was conducted face-to-face and the COVID-19 pandemic is considered for 2 years of not holding training. The gap between the expectations contained in the FC curriculum on "healthy

child leaders” and the apparent fact that mentoring is not optimal for children had become a research gap to find a solution (Karagianni & Jude Montgomery, 2018; Wang & Ho, 2020).

Based on initial interviews, the mentors needed the development of training materials as well as training to build healthy child leaders. The development of technology that colored the world of learning inspired the creation of e-modules by utilizing the "flip PDF corporate" platform or software. The “Flip PDF Corporate Edition 2.4.9.31” application was a software from Windows that can convert PDF into materials that can be published digitally with sophisticated features in the form of a digital publication module that is not only attractive, but also interactive (Yulando et al., 2019; Susanti & Sholihah, 2021). The creation of e-modules related to leadership training materials was not yet exist, especially the use of Flip PDF Corporate was also not available, but from previous research in other fields, it showed that e-modules using Flip PDF Corporate met the criteria of being valid, effective and practical in use to improve student achievement (Susanti & Sholihah, 2021; Salsabila & Nurjayadi, 2019). Another consideration in choosing this application was the ease of operating the application and the many interesting features such as editing pages, creating very interactive and inspiring pages by providing a multimedia touch such as videos, images, youtube, audio, hyperlinks, quizzes and others. (Susanti & Sholihah, 2021; Angriani et al., 2020). There are at least four advantages of this application: 1) there is a flip effect that appears such as opening sheet by sheet of a book along with audio such as the sound of paper (can be disabled if not needed); 2) easier e-module creation; 3) e-module is equipped with video, audio (music) as well as pictures and quizzes so that it becomes more interesting; 4) e-modules created with this application can be published in html form which can be published on the website, or in exe form (Susanti & Sholihah, 2021; Salsabila & Nurjayadi, 2019; Yulando et al., 2019).

If a straight line is drawn, the problem of leadership crisis in quantity and quality became the rationale for the PESAT Foundation to establish FC as a non-formal educational institution alongside formal education which was established with the aim of building healthy child leaders. Mentors as the spearhead of the implementation of the BHCL program had two big problems to achieve the goals of FC, namely 1) Not all FC mentors were trained and 2) training materials that had not made mentors able to learn independently, and for the Foundation the problem of spreading FC in various regions and the existence of pandemic has not implemented a comprehensive training program. Based on these problems and needs, the trainers offer training e-modules which are expected to be a solution for PESAT Foundation in equipping mentors to build children's leadership capacity. E-module was created by utilizing technological developments so that the resulting materials can be accessed “anywhere, anytime and to anyone”. To test the validity and effectiveness of the e-module training offered, the researcher used the research and development procedures of the Sugiyono model, the ADDIE model and the Kirkpatrick evaluation model.

The differences between this research and previous researches are 1) the content of the e-module which focuses on developing children's leadership by synergizing the goals, processes and design of children's leadership; 2) the discussion of children's leadership in previous studies has not been actualized in the form of e-modules that provide opportunities for repeated and independent learning through the use of technological developments; 3) This research collaborates with Sugiyono's model up to stage 9, ADDIE and Kirkpatrick's evaluation to test the validity and effectiveness of the e-module. The difference between this research and previous researches is directly or indirectly became the novelty of this research.

2. METHOD

This research used the type of R&D research, namely the scientific process to conduct research, create designs, validate designs made, produce or produce products and conduct trials to determine the level of effectiveness of these products (Sugiyono, 2019; Sa'adah, 2020; Hamzah, 2019). The R&D research design used the collaboration of the Sugiyono model up to stage 9 and the ADDIE model and was supported by the Kirkpatrick evaluation model. Sugiyono's model up to stage 9 included: 1) potentials and problems; 2) data collection; 3) product design; 4) product design validation; 5) revision of product design and created initial product; 6) limited trial; 7) product revision 1; 8) user trial; 9) revision of product 2 and created the final product (Sugiyono, 2019; Herminayu & Sulasmono, 2020). The ADDIE model included: 1) analysis; 2) design; 3) development; 4) implementation; and 5) evaluation (Hamzah, 2019; Winaya et al., 2016). At the trial stage on the Sugiyono model and the implementation and evaluation stages of the ADDIE model, researcher collaborated with the Kirkpatrick evaluation model up to level 2, namely reaction and learning (Richard et al., 2019; Heydari et al., 2019; Nurhayati, 2018; Shen et al., 2017) to determine the level of effectiveness of the resulting e-module. The following is the collaboration model of Sugiyono, ADDIE and Kirkpatrick's evaluation which is shown in Figure 1.

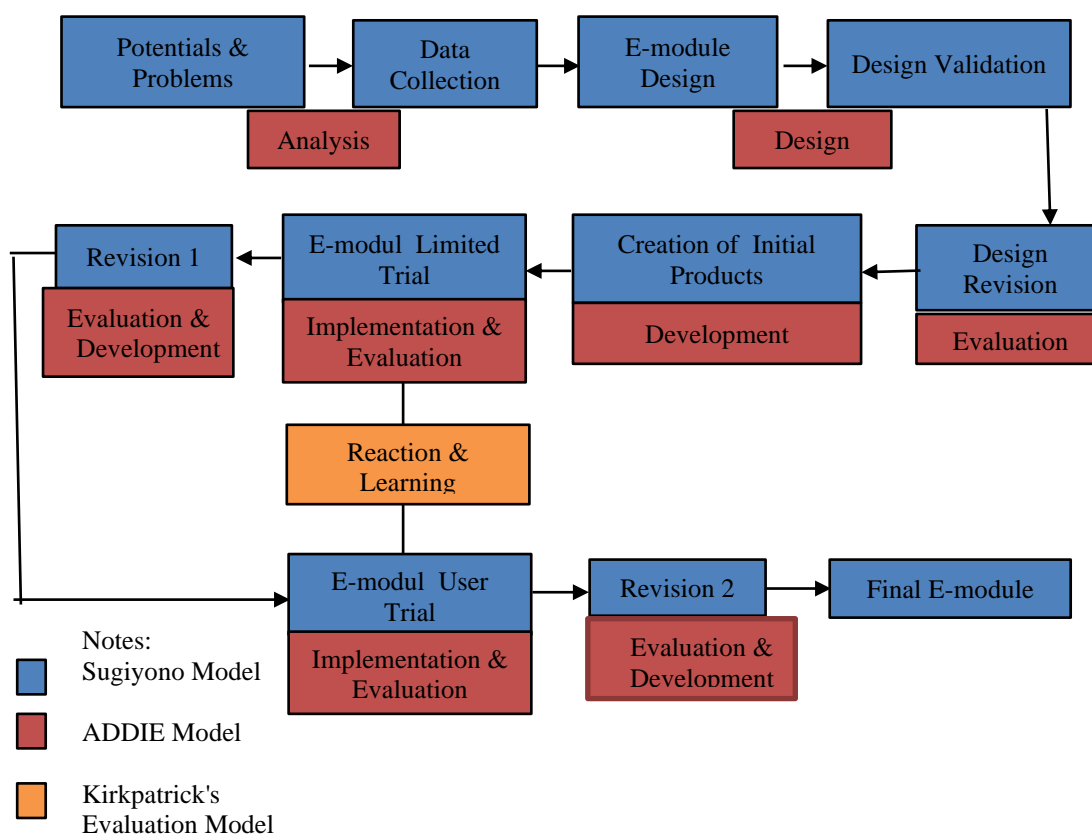


Figure 1. The Collaboration of Sugiyono, ADDIE and Kirkpatrick Models

Research subjects for 1) preliminary research were FC managers, supervisors and coordinators; 2) the limited trial consisted of 30 STAK Terpadu students as potential mentors; and 3) user trials were 40 FC mentors in the field. The techniques and instruments used in this study were interviews, observation, documentation, questionnaires and tests. The test was given to the trainees before and after receiving the e-module training. In the limited and user trial phase, the experimental design "One group pretest and posttest" was chosen without a comparison class. The validity and reliability tests used the "Pearson product moment" and "corrected item to total correlation" tests to analyze the pretest and posttest questions. The e-module design was validated by three expert validators, namely design, IT and materials experts. The design expert validators gaved an assessment of the design, syllabus and scenario aspects. The IT expert validators gaved an assessment based on aspects of learning, visual communication and software. The material expert validator provided an assessment based on aspects of the appearance of the e-module, training material and use of language . To test the quality and effectiveness of e-modules in limited and user trials, researchers used test instruments, questionnaires, observations and interview. The grid of test instruments that have been tested for validity and reliability are presented in Table 1.

Table 1. Grid of Pretest and Posttest Questions

Module Material	Test Question Number
Reference for Mentors	6, 10, 13, 15, 27, 28, 29, 32, 34
Holistic Goals "BHCL"	3, 5, 11, 12, 18, 19, 20, 22, 30, 35
Dynamic "BHCL" Process	2, 4, 23, 25, 26
Deliberate "BHCL" Design	1, 7, 8, 9, 14, 16, 17, 21, 24, 31, 33

To determine the quality of the e-module and the effectiveness of the training, the researcher used a participant response questionnaire. The observation instrument is a guide for observers to pay attention to how the trainer delivers the e-module material, tools and media used in the training. Interview guidelines are needed to obtain qualitative data to strengthen quantitative data. The interview guide was used in the preliminary research and trial of the e-module. The research produced quantitative and qualitative data. The technique used in analyzing the data was mixed methods with explanatory sequential type, as shown in Figure 2.

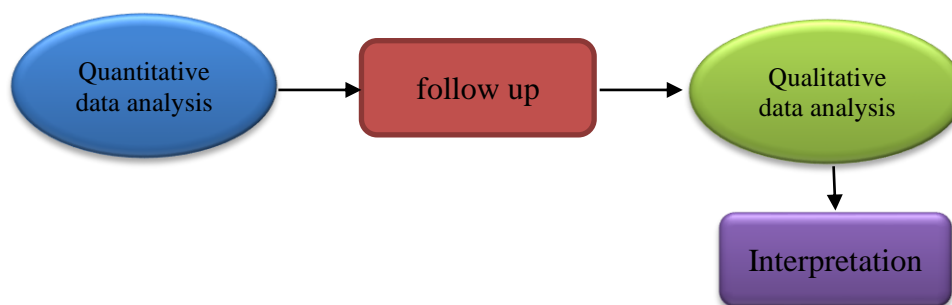


Figure 2. Mixed Methods Type Explanatory Sequential Design (Sugiyono, 2017b)

Qualitative data obtained through triangulation of techniques and sources were analyzed based on the model proposed by Miles and Huberman with the following steps: 1) data reduction; 2) how the data is displayed and 3) how the data is traced for valid data verification. Quantitative data were analyzed by descriptive statistical analysis and inferential statistics. Descriptive statistical analysis was presented in the form of tables, graphs and percentage calculations, while inferential statistical analysis used the Paired T test to prove the hypothesis. The researcher used a percentage analysis technique on the results of the questionnaire to determine the quality criteria for the e-module and the effectiveness criteria in the implementation of the training.

3. RESULT AND DISCUSSION

Result

The results of the research were based on the collaborative research and development of the Sugiyono model up to stage 9, the Addie model and the evaluation of the Kirkpatrick model. In the first stage, namely the potentials and problems, the researcher found the supporting factors and weaknesses of the implementation of the building healthy child leaders program. Factors supporting the implementation of BHCL were 1) the FC curriculum; 2) financial support from the Foundation; 3) the existence of a mentor as a child companion; and 4) some of the mentors have attended BHCL training. Weaknesses of implementing BHCL were 1) Most of the mentors had never attended BHCL training (90%); 2) training materials obtained by mentors who participated in BHCL training, in the form of PPT print outs (50%), PPT softcopy (40%), worksheets (10%) and non-materials (30%). Other findings were 1) the need for training materials in the form of e-modules (90%) and the need for BHCL training (100%). The second stage was collecting data. The results of a search on the literature and previous researchers, the researcher obtained data that were relevant to the research problem including: 1) the basis and understanding of BHCL; 2) mentors; 3) training; 4) e-module and 5) collaborative research and development of the Sugiyono model, ADDIE and the evaluation of the Kirkpatrick model. The third stage was the design of the BHCL training e-module for mentors. In developing the design using the ADDIE model, information related to the e-module design was obtained as shown in Figure 3. The e-module design took advantage of the Flip PDF Corporate application.

Product design in the form of an e-module was developed using the ADDIE model which includes 1) analysis of the content of the BHCL e-module material; 2) the design which was a draft of the BHCL e-module includes the syllabus, training scenario, participant e-module, e-trainer and e-guide; 3) development was the stage for realizing e-modules; 4) implementation was a design for product trials; 5) evaluation was a design of the feasibility and effectiveness of the e-module (Riwu et al., 2019; Lestari & Parmiti, 2020; Vanorika et al., 2016; Sofyan et al., 2019). The e-module design was made to describe the content and objectives to be achieved with the BHCL training e-module learning. The cover of the e-module by showing children watching enthusiastically gave a message to mentors that building leadership in children will answer the question of quantity and quality of leadership (Qian & Walker, 2017; Winingsih & Sulistiono, 2020; Richard et al., 2019). In the introduction, the e-module was designed by describing: 1) background; 2) goals to be achieved; 3) competency map; 4) scope and 5) instructions for using e-modules. By paying attention to the introduction of the e-module, it is hoped that the trainees will get a comprehensive picture of the BHCL training e-module. From the design displayed, there were also 4 training activities which included: 1) mentor reference; 2) Holistic goals 3) dynamic processes and 4) deliberate design. If we pay attention to the sub-sections of the training activities, then the trainees will understand the introduction of each material, basic competencies, competency delivery indicators, training objectives, material descriptions, exercises and feedback and material answers.

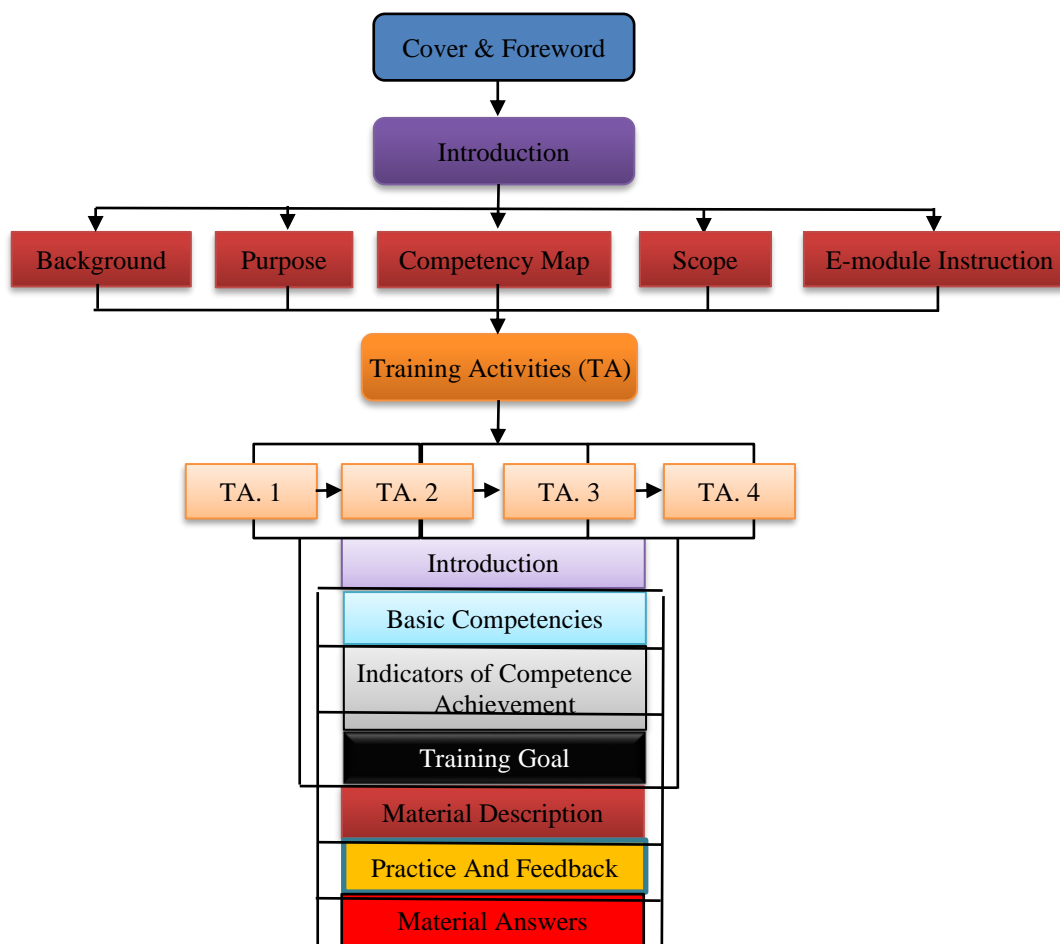


Figure 3. E-module design.

The fourth stage was the validation of the e-module design. The design of the “Building Healthy Child Leaders” training e-module was validated by three experts in their fields, namely a design expert validator, an IT expert validator and an e-module material expert validator. Design expert validators provide an assessment of the design aspects, syllabus and training scenarios. IT expert validators provide assessments from aspects of learning, visual communication and software. The material expert validator provides an assessment of the aspects of the e-module display, e-module material and use of language. The results of the validator's assessment of the assessed aspects are shown in Table 2. The results of the assessment of the three validators showed that the e-module design was so worth it or valid.

Table 2. Expert Validator Assessment Results

Validator	Assessment Aspect			Criteria
Design Expert	Design	Syllabus	Scenario	So Worth It
	93,4 %	94 %	86 %	
IT Expert	Learning	Visual Communication	Software	So Worth It
	85 %	90 %	86,7 %	
Material Expert	Display	Material	Use of Language	So Worth It
	93,4 %	97,2 %	100 %	

The fifth stage was a revision of the e-module design based on suggestions and corrections from expert validators. The revisions carried out by researcher included: 1) adding videos in training activities 2 about holistic goals; 2) the addition of interactive quizzes to measure the level of mastery of the material; 3) improve page speed by compressing data so that e-modules can be accessed faster; and 4) utilization of hosting and domain facilities to post e-module online. After the revision, proceed to the manufacture of the initial e-module product as shown in Figure 4

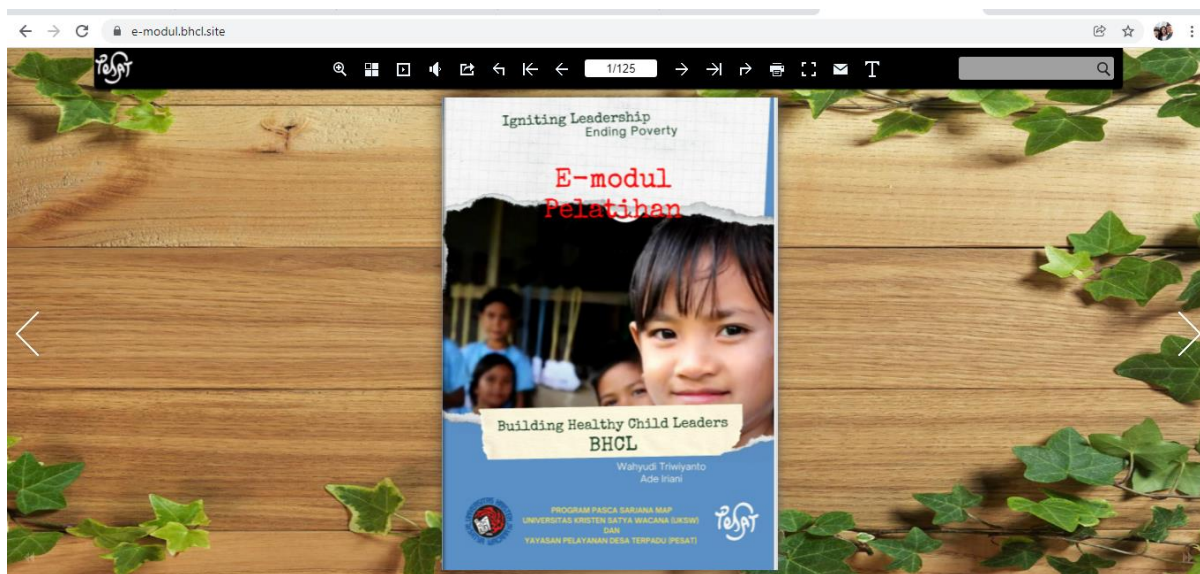


Figure 4. Front Cover Display

For the purposes of testing, the pretest and posttest instruments were tested for validity and reliability using the SPSS 25 application. The results of the validity test were shown by the "Pearson product moment" and "corrected item to total correlation" tests (Faridah et al., 2021; Winingsih & Sulistiono, 2020). If the value of "Corrected Item-Total Correlation" < R table (0.2573) with $\alpha = 0.05$, it is declared invalid and there are 15 questions out of 50 items that were not valid. The reliability test was shown from the value of "Cronbach's alpha Based on Standardized Items" = 0.920 > R table (0.2573), meaning that the overall test questions met the reliability. Based on the validity and reliability tests, there were 35 questions that are used as pretest and posttest instruments during limited and user trials. The sixth stage is a limited trial of e-modules. The results of the limited trial phase included the results of the normality test, paired T test, evaluation of training participants' responses to the quality and implementation of e-module training. Shapiro Wilk's normality test with the help of the SPSS 25 application on the hypothesis H_0 : the data is normally distributed, sets the rules for decision making: if (p-value) indicated by the value of sig. in the table of the normality test less than α or ($\alpha <$), with $\alpha = 0.05$ then H_0 is rejected. Analysis of the results of the pretest and posttest in the limited trial obtained a sig value for the pretest variable 0.574 and the posttest variable 0.081, meaning (p-value) pretest > α and (p-value) posttest > α , meaning that H_0 was accepted, so that the pretest and posttest data in the limited trial were normally distributed. Thus, the pretest and posttest data from the limited trial fulfill the prerequisites for the Paired T Test.

The Paired T Test was used to analyze the differences between the two quantitative paired data, whether there was an effect on the two data after being given treatment, in this case the use of e-module. The statistical results in the limited trial described that the average value of the pretest is 60,953 and the posttest is 79.5. Descriptively, it can be seen that there was a difference in the average training results in a limited trial, between before and after being given training treatment using the training e-module. The results of the Paired T Test were used to show the significance of the difference between the pretest and posttest. Paired T Test on the hypothesis H_0 : $\mu_{\text{pretest}} = \mu_{\text{posttest}}$ (pretest and posttest there is no difference in the average), establish a decision guide based on the significance value. If the value of Sig. (2-tailed) < 0.05, then H_0 is rejected. The statistical results in the limited trial showed that the value of sig. (2-tailed) of 0.000 < 0.05 means that H_0 was rejected. In conclusion, there was an average difference between pretest and posttest, meaning that the use of the BHCL training e-module in a limited trial had a significant effect before and after training. The strength of the influence on the relationship between pretest and posttest is shown from the value of the correlation coefficient between pretest and posttest. The value of the pretest and posttest correlation coefficients in the limited trial was 0.285 (positive), meaning that the pretest and posttest correlations in the limited trial and the user had a strong and positive relationship.

The results of the evaluation of the training participants on the quality of the e-module including the display, material, learning and software (table 10) in the limited trial showed 52.8% "Strongly Agree" and 45.5% showed "Agree" to the quality of the e-module, while 0,8 % indicated "Doubtful", 0,2 indicated "Disagree" and 0,7 indicated "Strongly Disagree." While the results of the evaluation of the implementation of the BHCL e-module training which included the training room, consumption, timeliness, capacity of trainers and method of delivery of materials (Table 3) showed that 64.1% gave an assessment of "Strong Agree" and 35.3%

of training participants gave a "Agree" assessment of the implementation of the training, while 0.6% of training participants gave an assessment of "Doubtful".

Table 3. Limited Trial Evaluation Results

Evaluation	Strongly Agree	Agree	Doubtful	Disagree	Strongly Disagree
E-modul quality	52,8 %	45,5 %	0,8 %	0,2%	0,7 %
Training Implementation	64,1 %	35,3 %	0,6 %	0 %	0 %

The results of interviews and observations showed that e-module was very interesting, easy to learn and provide motivation, inspiration in building children's leadership. While the response to the training in the limited trial was very positive, the material delivered by the trainer was interesting, not boring and the timing was right. The seventh stage was a revision based on input and responses from limited trial participants. The inputs and suggestions given included 1) gave a touch of instrumental music; 2) e-module was made into applications that can be accessed without an internet network; 3) e-module was addition of quiz content, and 4) relocation of illustrations in training activities 3: Dynamic BHCL process. The eighth stage is a trial of e-module users. The results of the user trial phase included the results of the normality test, paired T test, evaluation of training participants' responses to the quality and implementation of e-module training. Shapiro Wilk's normality test with the help of the SPSS 25 application on the hypothesis H_0 : the data is normally distributed, sets the rules for decision making: if (p-value) indicated by the value of sig. in the table of the normality test less than α or ($< \alpha$), with $\alpha = 0.05$ then H_0 is rejected. Analysis of the results of the pretest and posttest in the user trial obtained a sig value for the pretest variable 0.454 and the posttest variable 0.677, meaning (p -value) pretest $> \alpha$ and (p-value) posttest $> \alpha$, meaning that H_0 was accepted, so that the pretest and posttest data in the user trial were normally distributed. Thus, the pretest and posttest data from the user trial met the prerequisites for the Paired T Test.

The Paired T Test was used to analyze the differences between the two quantitative paired data, whether there was an effect on the two data after being given treatment, in this case the use of e-module. The statistical results in the user trial described that the average value of the pretest is 62.71 and the posttest is 83.97. Descriptively, it can be seen that there was a difference in the average training results in user trials, between before and after being given training treatment using training e-modules. The results of the Paired T Test were used to show the significance of the difference between the pretest and posttest. Paired T Test on the hypothesis H_0 : $\mu_{pretest} = \mu_{posttest}$ (pretest and posttest there is no difference in the average), establish a decision guide based on the significance value. If the value of Sig. (2-tailed) < 0.05 , then H_0 is rejected. The statistical results in the limited trial show that the value of sig. (2-tailed) of $0.000 < 0.05$ means that H_0 was rejected. In conclusion, there is an average difference between the pretest and posttest, meaning that the use of the BHCL training e-module in the user trial had a significant effect before and after the training. The strength of the influence on the relationship between pretest and posttest is shown from the value of the correlation coefficient between pretest and posttest. The value of the pretest and posttest correlation coefficients in the user trial was 0.205 (positive), meaning that the pretest and posttest correlations in the user and user trial had a strong and positive relationship. The results of the evaluation of the training participants on the quality of the e-module included the appearance, material, learning and software in the user trial showed 57% "Strongly Agree" and 42.4% showed "Agree" to the quality of the e-module, while 0.6% indicated "Doubtful". While the results of the evaluation of the implementation of the BHCL e-module training which included the capacity of the trainer, delivery method, timeliness, interaction between participants, and internet network showed that 55% gave an assessment of "Strongly Agree", 41.4% of the training participants gave an "Agree" assessment of the training implementation, 2.6% of the training participants gave a "Disagree" rating, 0.8% gave an assessment of "Disagree" and 0.2% gave an assessment of "Strongly Disagree" as shown in Table 4.

Table 4. User Trial Evaluation Results

Evaluation	Strongly Agree	Agree	Doubtful	Disagree	Strongly Disagree
E-modul quality	57 %	42,4 %	0,6 %	0 %	0 %
Training Implementation	55 %	41,4 %	2,6 %	0,8 %	0,2 %

The ninth stage was a revision based on the results and input from the eighth stage. The result of the ninth stage was the addition of training PPT content into the e-module so that the e-module can be an independent learning material and distributed to other mentors. The result of the revision was the final product of the "Building Helathy Child Leaders" training e-module for mentors.

Discussion

The research product in the form of an e-module was based on the research starting point in the form of problems and needs needed in developing healthy children's leadership in FC. The gap between what was expected and the reality that is happening encourages the creation of e-training modules as solutions or finding answers to problems (Sugiyono, 2019; Hamzah, 2019; Setyosari, 2020). The development of the E-module produced through a feasibility test or validation process and test its effectiveness in a training. The procedure used in this research is the collaboration of the Sugiyono development model up to stage 9, the ADDIE model for e-module development and the Kirkpatrick evaluation model up to level 2. The procedure or the first stage of the Sugiyono model stage is the potential and the problem. With the collaboration of the ADDIE model in the analysis stage, potential and problems were found in the implementation of the program for building healthy child leaders. At this stage, the answer to the question "How is the implementation of the BHCL program at FC?" It can be seen that there was a positive potential to support program implementation such as the FC curriculum, the number of children in the village, support from parents, support from the PESAT Foundation in the form of routine and non-routine funds, providing mentors and mentoring for this program. This fact is in accordance with what was stated by Sugiyono that potential is defined as the development of everything that has the capacity to provide added value (Sugiyono, 2019; Hamzah, 2019). Through the analysis of the ADDIE model, it was found the weaknesses in the implementation of BHCL in FC as well as finding the needs needed to support the implementation of the BHCL program, namely the need for training materials that enable them to learn independently and the need for BHCL training so that they have the necessary insight, skills and competencies. The description of the weaknesses presented above becomes the answer "What are the weaknesses of the implementation of the BHCL program?" as well as the starting point for e-module development.

Data collection in the second stage through literature study and previous research provided a solid theoretical and implementation basis for the plan to make the BHCL training e-module. Relevant analysis of previous theories and findings made use of Miles and Huberman's analysis which included reducing all data obtained, presenting data by grouping based on the main problem to be answered and verifying the truth and accuracy of the data (Herminayu & Sulasmono, 2020; Yu et al., 2021; Kim et al., 2021; Astalini et al., 2019). Data collection techniques through triangulation both techniques and sources were very helpful in verifying and checking the truth of the data obtained. The data collection was taken into consideration for the preparation of the BHCL training e-module design as a solution to meet the needs. This step had three functions, namely 1) to provide an explanation; 2) to make forecasts or predictions; and 3) carry out a control or control over the incident (Sugiyono, 2019; Hamzah, 2019). The third stage was to design a BHCL training e-module for mentors. A systematic and purposeful design will help participants, not only understand but be able to implement it (Sugihartini & Jayanta, 2017; Prasetya, 2021; Perdana et al., 2017; Richard et al., 2019).

The fourth stage was validation of the e-module design with the aim of knowing the level of feasibility of the e-module design made. A product is said to be very good if the product meets the feasibility aspect so that it can be used as training or learning material (Lestari & Parmiti, 2020; Yulando et al., 2019; Fadieny & Fauzi, 2021; Perdana et al., 2017). There were 3 expert validators who provide an assessment of the module, namely design expert validator, IT expert and material expert. The e-module validation by expert validators was an internal test of the e-module design (Sugiyono, 2017a; Hamzah, 2019). The assessment of the expert validator was based on a predetermined grid and in the form of a statement on Google Form using a Likert scale. Based on the results of the research, the design expert validators gave an assessment of the design aspects (93.4%), syllabus (94%) and scenarios (86%) which indicated that the design, syllabus and scenario aspects were at the level of the "Very Eligible" criteria. The IT expert validator gave an assessment of learning aspects (85%), visual communication (90%) and software (86.7%) which indicated these aspects were in the "Very Eligible" criteria. The material expert validator gave an assessment of the aspects of the e-module (93.4%), material (97.2%) and the display of language use (100%) so that these three aspects were also included in the "Very Eligible" Criteria. Based on the three validators, the e-module design made "Very Valid" means that the research instrument used was valid because it has very high validity and there is a match between the content and construction of the e-module (Arikunto, 2019; Puspoko et al., 2019; Trilestari & Almunawaroh, 2021; Sofyan et al., 2019).

The fifth stage of the research and development procedure was the revision of the e-module design based on input and suggestions from expert validators. Revision of the e-module design is needed to correct the weaknesses and shortcomings according to the validator's view so that the making of the e-module as an initial product is better (Puspoko et al., 2019; Hidayat et al., 2017; Herminayu & Sulasmono, 2020; Simamora et al., 2019). The use of the Flip PDF Corporate application in developing the BHCL training e-module was based on the ease of use and the many interesting and functional features that made the e-module an interesting and interactive material, both for independent learning and as training material. For publishing purposes, the researcher used the hosting "domainNesia which is included in the type of "cloud based hosting" and the domain "bhcl.site." The purpose of hosting is to store data and information on BHCL training e-modules for mentors that

have been made in html format. While the domain serves as the address of the website so as to provide convenience in searching on data search engines. The researcher understanding and thoughts was based on the needs analysis in the previous stage that learning in training needed to utilize the internet so that trainees could learn and repeat material "anytime and anywhere" (Cholifah, 2020; Astalini et al., 2019; Vanorika et al., 2016; Susanti & Sholihah, 2021). In addition, previous research provides inspiration related to the use of technological developments. Technological developments as part of the 4.0 revolution were used: 1) to integrate lesson plans so that the quality of learning can be improved; 2) provide a pleasant learning experience; 3) increase the effectiveness of the use of e-modules and e-assessments as opportunities to develop education; 4) integrate training electronically to increase the capacity of principals; 5) make learning take place interactively and smartly; and 6) increasing the self-efficacy of the e-training participants to do something according to the goals set (Mohebi & Meda, 2021; Fadieny & Fauzi, 2021; Astalini et al., 2019; Al-Hamad et al., 2020; Almekhlafi, A.G. and Abulibdeh, 2018; Zainab et al., 2017). In addition to preparing the initial product, namely the BHCL training e-module, the researcher also conducted validity and reliability tests on test items (pretest and posttest). Validity test is needed to determine the accuracy of a measuring instrument (test questions) so that the measured variable is the actual variable in the study. Reliability testing is needed to obtain accountable instructions as a tool for collecting data and revealing actual data during trials (Winingsih & Sulistiono, 2020; Wang et al., 2020). Based on the results of the study, of the 50 questions that were tested on 42 respondents, only 35 questions met the validity and reliability tests, meaning that the 35 questions met the aspect of accuracy in determining the size function and became a reliable instrument for collecting data during trials (Garg & Sharma, 2020; Winingsih & Sulistiono, 2020; Wang et al., 2020).

The sixth stage is a limited trial to 30 STAK students as potential mentors and the eighth stage is a user trial to 40 PESAT foundation mentors. As explained earlier, research and development is a type of research that is focused on designing and manufacturing products as well as conducting feasibility and effectiveness tests. (Cholifah, 2020; Astalini et al., 2019; Trilestari & Almunawaroh, 2021). The feasibility and effectiveness test of the e-module in a training was conducted in two trials, namely a limited trial and a user trial. In both e-module trials, researcher used the experimental design method "one group pretest and posttest" with one experimental class as the subject without a comparison class (Herminayu & Sulasmono, 2020; Perdana et al., 2017). The considerations for choosing an experimental method without a comparison class because the researcher only wanted to know the effectiveness of using e-modules without comparing it with other methods. The effectiveness of the e-module was shown from the results of the hypothesis using the Paired T Test in both the limited trial and the user who concluded that the use of the e-module in both classes had a significant, strong and positive effect. And by analyzing the results of questionnaires, interviews and observations, it was found that the quality of the e-modules (Very Good) as well as the training provided was "Very Effective". The final result of the research and development process in the form of a BHCL training e-module for mentors met the criteria for validity and effectiveness. This is in line with the results of Rahmatsyah and Susanti & Sholihah's research which showed the validity and effectiveness of using e-modules could be the basis for the use of e-modules for training or learning. (Rahmatsyah & Dwiningsih, 2021; Susanti & Sholihah, 2021). In addition to conducting trials on e-modules, the revisions carried out in the seventh and ninth stages also determined the quality and effectiveness of e-module. Revisions can be in the form of corrections or improvements or additions to functions and features.

The product results in the form of e-modules showed that the BHCL training materials by utilizing technological developments through the corporate flip pdf application were very feasible and very effective both in terms of the quality of the e-modules and the training held as product trials. This was in accordance with the results of Sofyan's research which showed "very good" criteria to make e-modules suitable for use in learning. Maria Erna, et al also conveyed the results of research which stated that e-modules that meet the feasibility aspect reduce students' misconceptions about the material provided (Sofyan et al., 2019; Erna et al., 2021). Through interactive e-modules utilizing technological developments, participants' responses to e-modules were positive because e-modules made them more enthusiastic to repeat and prepare for the next lesson due to various interesting features such as music, pictures, videos, exercises, and quizzes. The quizzes presented will encourage students to learn because the progress of mastery of the training material can be known by the participants. The response of the training participants indicated the need for application-based e-module usage was very high in the midst of digitalization (Cholifah, 2020; Fadieny & Fauzi, 2021). In addition, e-modules that was designed to involve training participants to discuss in groups or individually to reflect on what is in the leadership material contributed to increasing the understanding of the trainees in building healthy child leaders.

Overall, the "Buildig Healthy Child Leaders" training e-module was rated "Very Valid" and "Highly Effective" to be used as training material for mentors. The validity and effectiveness of e-modules is important in the feasibility of using e-modules. The effectiveness and feasibility of the e-module will increase the ability of the trainees in terms of knowledge, skills and attitudes so that the goals to be achieved in the organization can be achieved. This happens because the e-module increased interest in learning so that the level of understanding and

implementation of the content of the e-module could increase (Hamid et al., 2020; Angriani et al., 2020; Sofyan et al., 2019). And related to children's leadership development, the role of mentors who have been empowered and enhanced their competence will affect efforts to build children's leadership). The results of this e-module training will improve the understanding of the mentor (Fox et al., 2015; Herwinesastra, 2019) in building healthy child leaders by developing and integrating holistic goals, dynamic processes and deliberate design. Training e-module "Building Healthy Child Leaders" which was integrated with the Flip PDF Corporate application created independent and interactive learning because the features used allow trainees to learn interactively. The features in the e-module were a combination of several learning media such as text, images, videos, audio, links and quizzes that can create a two-way interaction between the e-module and the user. This advantage provided an opportunity for users who have auditory and visual learning styles as well as kinesthetics to be motivated to actively and creatively study independently (Huernatahaean & Harini, 2019; Susanti & Sholihah, 2021; Agustin et al., 2021). Thus, e-modules can be used as learning media and training in the digital era.

4. CONCLUSION

The BHCL training e-module for mentors as a solution was given to the problem of implementing the BHCL program which had not been maximized, it had gone through research and development procedures. Through a procedure that collaborated with the Sugiyono model, ADDIE and the evaluation of the Kirkpatrick model, the BHCL training e-module has met the feasibility test or validation and module effectiveness test. The results of the feasibility test showed that the e-module was at the "Very Valid" level and the effectiveness test showed the e-module at the "Highly Effective" level. Thus, the BHCL training e-module can be used as training material to build healthy children's leadership independently or simultaneously in a planned training.

5. REFERENCES

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