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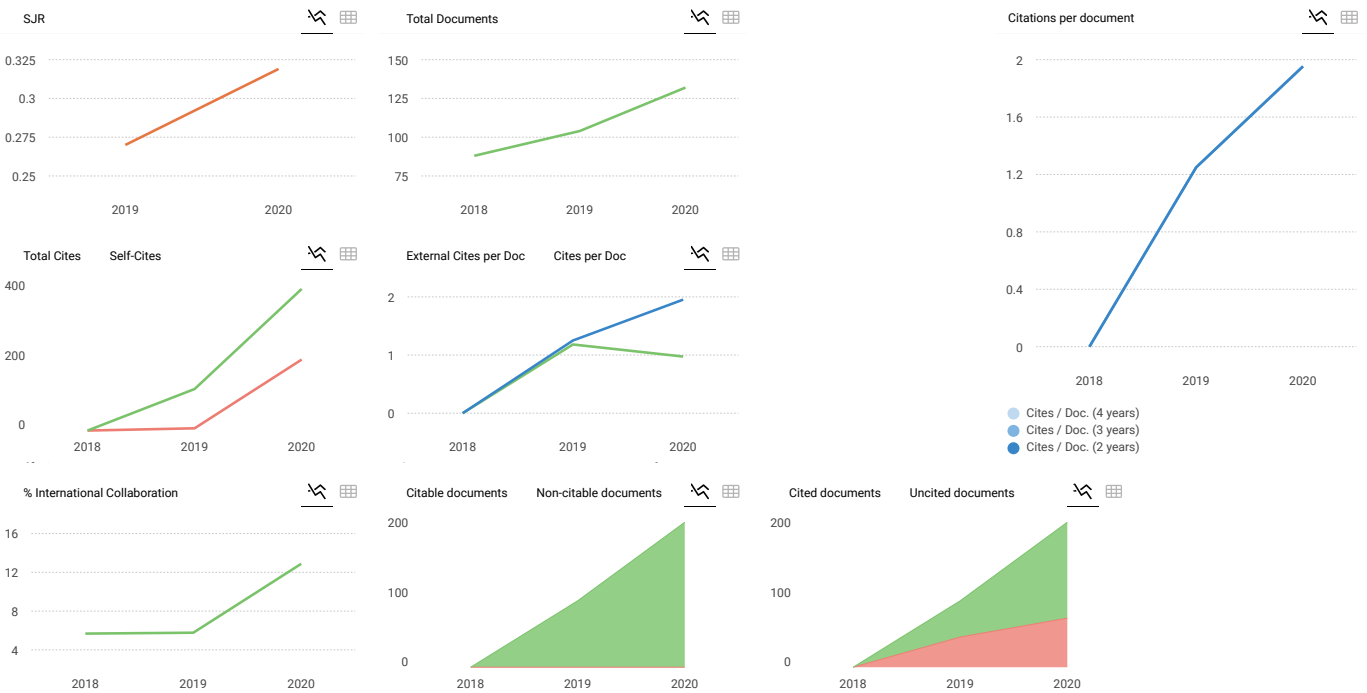
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Erif Ahdhianto* - INDONESIA, Marsigit - INDONESIA, Haryanto - INDONESIA, Novi Nitya Santi - INDONESIA

(the-effect-of-metacognitive-based-contextual-learning-model-on-fifth-grade-students-problem-solving-and-mathematical-communication-skills)

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Canan Demir-Yildiz* - TURKEY, Ramazan Samil Tatik - TURKEY

(impact-of-flexible-and-non-flexible-classroom-environments-on-learning-of-undergraduate-students)

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Teaching and Learning Bucket Model: Experimented with Mechanics Baseline Test (teaching-and-learning-bucket-model-experimented-with-mechanics-baseline-test)

Kizito Ndiokubwayo  , Pascasie Nyirahabimana , Théophile Musengimana




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
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610 (teaching-and-learning-bucket-model-experimented-with-mechanics-baseline-test)



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 VIEW ARTICLE (teaching-and-learning-bucket-model-experimented-with-mechanics-baseline-test)

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Agreement Levels of Kindergarten Principals and Teachers to Determine Teaching Competencies and Performance (agreement-levels-of-kindergarten-principals-and-teachers-to-determine-teaching-competencies-and-performance)

Dyah Retno Fitri Utami  , Yuli Kurniawati Sugiyo Pranoto, Lita Latiana, Sunawan





10.12973/eu-jer.10.2.537 (https://doi.org/10.12973/eu-jer.10.2.537)

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502 (agreement-levels-of-kindergarten-principals-and-teachers-to-determine-teaching-competencies-and-performance)

 ABSTRACT ()

 VIEW ARTICLE (agreement-levels-of-kindergarten-principals-and-teachers-to-determine-teaching-competencies-and-performance)

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Lecturers' Aptitudes, Attitudes and Professional Development in Higher Education at University of Cuenca (lecturers-aptitudes-attitudes-and-professional-development-in-higher-education-at-university-of-cuenca)


Guillermo Pacheco  , María-Isabel Espinoza, Sandra Cabrera-Arias, Patricio Cabrera-Tenecela




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Model of Holistic Education-Based Boarding School: A Case Study at Senior High School (model-of-holistic-education-based-boarding-school-a-case-study-at-senior-high-school)

Ida Rianawaty  , Suyata, Siti Irene Astuti Dwiningrum, Bagus Endri Yanto



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 ABSTRACT ()

 VIEW ARTICLE (model-of-holistic-education-based-boarding-school-a-case-study-at-senior-high-school)

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Mathematics Learning Interest of Students Based on the Difference in the Implementation of Model of Thematic Learning and Character-Integrated Thematic Learning (mathematics-learning-interest-of-students-based-on-the-difference-in-the-implementation-of-model-of-thematic-learning-and-character-integrated-thematic-learning)

Agustan Syamsuddin  , Rosleny Babo, Sulfasyah, Sutriani Rahman





10.12973/eu-jer.10.2.581 (https://doi.org/10.12973/eu-jer.10.2.581)

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415 (mathematics-learning-interest-of-students-based-on-the-difference-in-the-implementation-of-model-of-thematic-learning-and-character-integrated-thematic-learning)


 ABSTRACT ()

 VIEW ARTICLE (mathematics-learning-interest-of-students-based-on-the-difference-in-the-implementation-of-model-of-thematic-learning-and-character-integrated-thematic-learning)

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Teacher's Language Input for Recognizing the Cognitive Abilities of Autistic Student in Classroom Interaction (teachers-language-input-for-recognizing-the-cognitive-abilities-of-autistic-student-in-classroom-interaction)


Trisna Andarwulan   Abdul Syukur Ibrahim, Suparno, Martutik



10.12973/eu-jer.10.2.593 (https://doi.org/10.12973/eu-jer.10.2.593)

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👁 628 (teachers-language-input-for-recognizing-the-cognitive-abilities-of-autistic-student-in-classroom-interaction) 📄 527 (core.php?ajax=count&link=EU-JER_10_2_593.pdf)


 ABSTRACT ()

 VIEW ARTICLE (teachers-language-input-for-recognizing-the-cognitive-abilities-of-autistic-student-in-classroom-interaction)

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Elementary and Middle School Students' Perception of Homeland through Metaphors (elementary-and-middle-school-students-perception-of-homeland-through-metaphors)


Özcan Palavan, Çiğdem Kozaner Yenigül  



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👁 218 (elementary-and-middle-school-students-perception-of-homeland-through-metaphors) 📄 291 (core.php?ajax=count&link=EU-JER_10_2_607.pdf)


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 VIEW ARTICLE (elementary-and-middle-school-students-perception-of-homeland-through-metaphors)

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Effectiveness of Digital and Paper-Based Identification Keys for Plants with Slovenian Pre-service Teachers (effectiveness-of-digital-and-paper-based-identification-keys-for-plants-with-slovenian-pre-service-teachers)


Gregor Torkar  



10.12973/eu-jer.10.2.619 (https://doi.org/10.12973/eu-jer.10.2.619)

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👁 144 (effectiveness-of-digital-and-paper-based-identification-keys-for-plants-with-slovenian-pre-service-teachers) 📄 337 (core.php?ajax=count&link=EU-JER_10_2_619.pdf)

 ABSTRACT ()

 VIEW ARTICLE (effectiveness-of-digital-and-paper-based-identification-keys-for-plants-with-slovenian-pre-service-teachers)

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Exploring ELT Students' Professional Identity Formation through the Perspectives of Critical Incidents (exploring-elt-students-professional-identity-formation-through-the-perspectives-of-critical-incidents)

Müfit Şenel  


10.12973/eu-jer.10.2.629 (https://doi.org/10.12973/eu-jer.10.2.629)

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👁 342 (exploring-elt-students-professional-identity-formation-through-the-perspectives-of-critical-incidents) 📄 400 (core.php?ajax=count&link=EU-JER_10_2_629.pdf)


 ABSTRACT ()

 VIEW ARTICLE (exploring-elt-students-professional-identity-formation-through-the-perspectives-of-critical-incidents)

 FULL TEXT PDF (core.php?ajax=count&link=EU-JER_10_2_629.pdf)


Ethics of Communication as an Important Component of Teacher Self-Branding in the Settings of the Digital Environment (ethics-of-communication-as-an-important-component-of-teacher-self-branding-in-the-settings-of-the-digital-environment)


Kateryna H. Trybulkevych   Tatyana L. Shchegoleva, Tamila L. Gruba, Larisa V. Gula, Yaroslav B. Zoriy



10.12973/eu-jer.10.2.641 (https://doi.org/10.12973/eu-jer.10.2.641)

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👁 241 (ethics-of-communication-as-an-important-component-of-teacher-self-branding-in-the-settings-of-the-digital-environment) 📄 294 (core.php?ajax=count&link=EU-JER_10_2_641.pdf)


 ABSTRACT ()

 VIEW ARTICLE (ethics-of-communication-as-an-important-component-of-teacher-self-branding-in-the-settings-of-the-digital-environment)

 FULL TEXT PDF (core.php?ajax=count&link=EU-JER_10_2_641.pdf)


Development of Handbooks of Guidance and Counseling to Enhance Elementary School Teachers' Competence in Cultivating Students' Creativity (development-of-handbooks-of-guidance-and-counseling-to-enhance-elementary-school-teachers-competence-in-cultivating-students-creativity)


Maryam Rahim   Wenny Hulukati



10.12973/eu-jer.10.2.657 (https://doi.org/10.12973/eu-jer.10.2.657)

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👁 190 (development-of-handbooks-of-guidance-and-counseling-to-enhance-elementary-school-teachers-competence-in-cultivating-students-creativity) 📄 260 (core.php?ajax=count&link=EU-JER_10_2_657.pdf)

 ABSTRACT ()

 VIEW ARTICLE (development-of-handbooks-of-guidance-and-counseling-to-enhance-elementary-school-teachers-competence-in-cultivating-students-creativity)

 FULL TEXT PDF (core.php?ajax=count&link=EU-JER_10_2_657.pdf)

Research Article

Development of Handbooks of Guidance and Counseling to Enhance Elementary School Teachers' Competence in Cultivating Students' Creativity


Maryam Rahim , Wenny Hulukati




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 Cite

Abstract

Central to the creativity development in elementary schools are competent teachers. Enhancement of teachers' competence could be done through the provision of guidance handbooks for the teachers. As based on the problem statements, this research was aimed at developing handbooks of guidance and counseling that could improve teachers' competence in providing quality guidance and counseling services; the handbooks were expected to help teachers in cultivating the creativity of elementary school students. In this research and development study, the designed handbooks consisted of book 1 Guidance and Counseling Implementation Plan, Book 2 Service Materials, Book 3 Teachers' Guideline, and Book 4 Evaluation Guideline. The effectiveness of the handbooks was examined using a quasi-experimental method with one group pre-test and posttest. According to the results of experimental data analysis, the t_{count} and t_{table} arrived at 7.665 (significance level of 0.05 (14)) and 1.76, respectively, meaning that $t_{count} > t_{table}$. This result signified that the handbooks were practical to build teachers' competence in providing quality guidance and counseling services, which was helpful in assisting the teachers in instilling the creativity of elementary school students. In brief, the handbooks are recommended to be used by teachers in promoting the creativity of elementary school students.

Keywords: *Guidance, counseling, teachers' competence, creativity, handbooks.*

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Development of Handbooks of Guidance and Counseling to Enhance Elementary School Teachers' Competence in Cultivating Students' Creativity

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Abstract: Central to the creativity development in elementary schools are competent teachers. Enhancement of teachers' competence could be done through the provision of guidance handbooks for the teachers. As based on the problem statements, this research was aimed at developing handbooks of guidance and counseling that could improve teachers' competence in providing quality guidance and counseling services; the handbooks were expected to help teachers in cultivating the creativity of elementary school students. In this research and development study, the designed handbooks consisted of book 1 Guidance and Counseling Implementation Plan, Book 2 Service Materials, Book 3 Teachers' Guideline, and Book 4 Evaluation Guideline. The effectiveness of the handbooks was examined using a quasi-experimental method with one group pre-test and posttest. According to the results of experimental data analysis, the *t*-count and *t*-table arrived at 7.665 (significance level of 0.05 (14)) and 1.76, respectively, meaning that *t*-count > *t*-table. This result signified that the handbooks were practical to build teachers' competence in providing quality guidance and counseling services, which was helpful in assisting the teachers in instilling the creativity of elementary school students. In brief, the handbooks are recommended to be used by teachers in promoting the creativity of elementary school students.

Keywords: *Guidance, counseling, teachers' competence, creativity, handbooks.*

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Introduction

Every person, including elementary school students, has the potential to be creative. This notion is in line with what Steve Curtis has explained that all people are born creative (DePorter & Hernacki, 2000). Being born with creativity means that everyone has the potential to become a creative person. The possibility of individuals to be creative could be obtained through learning and continuous development.

Children's creativity should be cultivated, given the privilege of creative individuals who are not only capable of improving self-development but also contributing to other people and the nation. Creativity refers to a skill that leads to invention and is essential paramount to society (Young, 1985, as cited in Vasudevan, 2013). Further, creativity is regarded as one of the advancement pillars in the economy and social landscapes (Creative Economy Report, 2008; Directorate-General for Education and Culture, 2006). It should be noted that creative people (Kirton, 1976) are the crucial resources in limited numbers. Communities, organizations, and companies that do not acknowledge creativity as the key element of advancement will stagnate development and even setbacks.

Creativity is a product of creative behaviors, which can be developed through education. On that ground, good education systems are expected to stimulate students' creativity, specifically elementary school students (Sahlberg, 2009). This is because, in elementary school ages, the stimulation underpins the next stages of student development. Schools are, therefore, urged to conduct creativity cultivation programs to accelerate the students' development further as effectively as possible.

The Regulation of Minister of Education and Culture of the Republic of Indonesia Number 111 of 2014 has stipulated that teachers shall perform guidance and counseling services graduated from the department of guidance and

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counseling (Minister of Education & Culture of the Republic of Indonesia, 2014). However, this regulation is yet to be actualized. Homeroom teachers or other teachers of other subjects are still responsible for guidance and counseling services at elementary schools. By that, elementary school teachers should possess the skills of guidance and counseling services for the impactful development of student potentials.

An interview with several teachers of elementary school reported that many educational institutions, specifically elementary schools in the city of Gorontalo, are yet to integrate creativity development programs in either their classroom activities or guidance and counseling services. Other data obtained were based on the results of interview with 10 elementary school teacher, which were strengthened by the results of document study conducted at 10 elementary schools in Gorontalo city, reveals the absence of specific guidelines on implementing guidance and counseling sessions, which can direct the teachers in promoting students' creativity in elementary school.

This situation suggests the necessity of developing guidance and counseling programs to help teachers in producing creative students.

Developing handbooks of guidance and counseling that can improve teachers' competence in providing quality guidance and counseling services; the handbooks were also expected to help teachers cultivate elementary school students' creativity.

Literature Review

Basic Concepts of Creativity

In a broader sense, the term creativity is described as how an individual demonstrates flexibility, originality, and fluent thinking skills in their works. The concept of creativity, in the context of the present study, refers to creative thinking skills. Potur and Barkul (2009) points out that creative thinking skills encompass cognitive, original, and problem-solving skills. According to Treffinger and Isaksen (2005), creative thinking are the salient trait skills are novelty, originality and imagination, fluency of ideas, as well as flexibilities and fluency in information elaboration. Lucas (2016) develops five creativity models, namely imaginative, inquisitive, persistent, collaborative, and discipline.

Creative thinking should not be confused with artistic talents (Meintjes & Grosser, 2010). Drawing upon the opinions by several scholars (Arends, 2009; McWilliam & Dawson, 2008; Nolan, 2004; Papalia et al., 2008), Meintjes and Grosser (2010) view creativity as a cognitive function that produces new ideas and concepts, and the ability to think divergently and productively in an academic domain, problem-solving that demonstrates initiative measures, and develops, applies, and produces new ideas. In the present study, indicators of creative thinking skills involve (1) fluent thinking skill, (2) flexible thinking skills, (3) original thinking skills, (4) attention to detail and elaboration, (5) evaluation skill, (6) curiosity, (7) imaginative, and (8) adventurous (in responding to advancement) (Munandar, 1995, as cited in Hawadi et al., 2001).

The Role of Competent Teachers in Developing Students' Creativity

From this day onwards, teachers' roles in education are still important, and any sophisticated technology cannot replace them. As an important figure in the education system, teachers are urged to master some competencies. This notion has been stipulated in the Law of the Republic of Indonesia Number 14 of 2005; the law classifies four competencies of a teacher: pedagogical, personality, social, and professional.

Burke (2005) opines that consisting of the areas of knowledge, ability and skill, competencies function to increase an individual's effectiveness with the world. Goleman (1999) further defines competencies as skills, authorities, power, or abilities. Competence is best described as a complex combination of knowledge, skills, understanding, values, attitudes, and desire, leading to effective, embodied human action in the world, in a particular domain (Crick, 2008; European Commission, 2013). Competence is therefore distinguished from skill, which is defined as the ability to perform complex acts with ease, precision, and adaptability (European Commission, 2013).

From the above definitions, one can say that competencies represent the abilities or skills needed in performing a particular activity or task, thus allowing a person to attain the stated objectives.

The focus of the research is to enhance teachers' professional competence in developing student creativity based on several indicators, namely (1) possessing a complete understanding of the developed aspects of creativity; (2) having the capability to create a design of creativity development programs or services; (3) having the capability to implement the counseling and guidance programs for creativity development, and; (4) having the capability to evaluate students' creativity after the completion of guidance and counseling programs.

Characteristics of the Developed Handbook

A handbook is among the concerns in activities performed by a group of people with different backgrounds. The handbook provides a clear description of what is being done, the purpose of an activity, how to carry out the activity,

and how to measure the activity's success. Simply put, the handbook is impactful on common perceptions and actions, although the activity is performed by different people. This notion has underpinned the development of the handbooks through this research.

The said handbooks are based on the principles of guidance and counseling, which is purposed to the optimum development of individual potential (Mortensen & Schumuller, 1976), promoting self-reliance (Stenberg, 2003), promoting and enhancing student learning (Campbell & Dahir, 1997; National Middle School Association, 2003), and is performed using various strategies, namely classical guidance, group guidance, and individual counseling. In general, these strategies consist of the preliminary stage, main stage, and final stage (Gibson & Mitchell, 1995; Gladding, 1995; Hackney & Cormier, 2001; Thompson et al., 2014).

The components of the handbooks comprise: (1) Guidance and counseling implementation plan, containing service implementation plans, which describes the topics, targets, strategies, methods/techniques, and evaluations of the guidance and counseling services; (2) Teacher guideline, which explains teacher's activities based on the plan in Guidance and Counseling Implementation Plan; (3) Material of services, containing eight indicators of student creativity development, and; (4) Evaluation guideline, which states the evaluation procedures of student creativity development. Detailed descriptions in the handbooks are expected to boost teachers' competence in undertaking guidance and counseling services for the creativity development of elementary school students.

The selection of the guideline components is adapted from the model by Dick and Carey (1990); the stages of the model include: conduct instructional analysis, identify entry behavior and characteristic, write performance objectives, develop criterion-referenced test items, develop instructional strategy, develop and select instructional materials, design and conduct formative evaluation, design and conduct the summative evaluation. The model of Kemp (1985) is also used as the reference; its components are learning needs, goals, priority/constraints, topics-job purposes, learners characteristics, subject content and tasks analysis, learning objectives, teaching-learning activities, instructional resources, support services, learning evaluation, and pre-test.

Methodology

Research Goal

Employing qualitative method, this research and development paper was aimed at developing handbooks of guidance and counseling that could improve teachers' competence in providing quality guidance and counseling services. The handbooks were expected to help teachers in cultivating the creativity of elementary school students.

Sample and Data Collection

Subjects of the research consisted of: (1) four experts (developmental psychology expert, guidance and counseling expert, teaching-learning material expert, and Indonesian language expert), and (2) nine elementary school teachers participated in the small-scale trial. Determining the respondent numbers was based on the principle of Dick & Carey (1990) that the ideal size for a small group is 9 to 12 respondents. (3) A total of 15 elementary school teachers of SD Laboratorium Universitas Negeri Gorontalo participated in the large-scale experiments. Such a number of experiment subjects correspond to the idea by Sevilla et al. (1984) that a minimum sample size of experimental research is 15 people.

The examined indicator is the teachers' professional competence, which is limited to the sub-competence of performing guidance and counseling services for student creativity development. Indicators of the sub-competence involved: (a) understanding of the characteristics of creativity, service strategies, methods or techniques of service, and evaluation procedures; (b) classical guidance implementation competence, (c) competence of method or technique implementation, and (d) evaluation implementation competence. The determination of all of the above indicators is based on the Regulation of the Ministry of Education and Culture number 27 of 2008 Concerning the Standard Competence and Qualification of Guidance and Counseling Teachers (counselors).

All data were retrieved from (1) expert validation sheets developed by the researcher, which have been peer-validated; these sheets were used to generate expert validation data regarding the developed handbook, and (2) closed questionnaires developed by the researchers and have been peer-reviewed. The questionnaires collected data regarding teachers' comprehension of the creativity traits, service strategies, methods or techniques of services, and evaluation procedures. (3) Counselor competence assessment instruments, for assessing Classical Guidance Implementation Competence. The Department of Counseling and Guidance developed the counselor competence assessment instruments, Faculty of Education, Universitas Negeri Gorontalo; it should be noted that the permit to use the instrument has been granted to the researcher. Further, counselor competence assessment instruments serves to generate data of several competencies, namely (b) service strategy implementation, (c) method or technique implementation, and (d) evaluation implementation.

Analyzing of Data

A quantitative analysis was employed in analyzing the data; this was conducted by calculating the mean of expert validation and small-scale trial data. Further, a dependent t-test, using the SPSS 20 program, was performed to examine the experimental data (large-scale experiment). This study employed the research and development model by Sugiyono (2016). In this research, however, only nine out of the ten steps of the research and development model were applied. All steps were: (1) analysis of potential and problems, (2) data collection, (3) designing the products, (4) expert validation, (5) revision of products, (6) small-scale trial, (7) product revision, (8) large-scale trial, and (9) producing final products.

Further, a normality test was carried out to determine whether or not the data are normally distributed. The study employed a *Kolmogorov-Smirnov* test with the significance level at $\alpha = 0.05$. The examined statistical hypotheses are as follows:

H_0 : The sample is normally distributed

H_1 : The sample is not normally distributed

The test criterion asserts that H_0 is refuted if the significance is lower than $\alpha = 0.05$. An application named SPSS 20 was used in analyzing the test. The pre and post-test results are in the following table.

Table 1: Normality Test of Pre-test and Post-test

Test	Kolmogorov-Smirnov ^a		
	Statistic	Df	Sig.
Pre-test	0.135	15	0.200*
Post-test	0.179	15	0.200*

In Table 1, the *sig.* value of pre-test and post-test gets 0.200*. According to the test criteria, if the *sig. value is greater than* 0.05, H_0 is not refuted (accepted). This result clarifies that the research data are normally distributed. On that ground, the stage proceeds to the paired t-test (dependent t-test).

Since the test results confirm that the data are normally distributed, parametric statistics were applied to test the hypothesis. This means that the hypothesis test employed one-sample t-test. Procedures of the test are as follows:

a. Formulating Research Hypotheses

H_0 : The developed handbooks of guidance and counseling are not effective in improving teachers' competence in cultivating elementary school students' creativity.

H_1 : The developed handbooks of guidance and counseling are sufficient to improve teachers' competence in cultivating elementary school students' creativity.

b. Statistical Hypothesis

H_0 : $\mu_1 \leq \mu_2$

H_1 : $\mu_1 > \mu_2$

c. Test Criteria

H_0 is refuted if $t_{\text{count}} \geq t_{\text{table}}$, or p-value in the column of Sig. (2-tailed) < level of significant (α)

H_0 is not refuted if $t_{\text{count}} < t_{\text{table}}$, or p-value in the column of Sig. (2-tailed) > level of significant (α)

Table 2: T-test

Learning Outcome	t-test for Equality of Means		
	t	df	Sig. (2-tailed)
Post-test – Pre-test	7.655	14	0.000

As seen in Table 2, the comparison results of the value of t_{count} with t_{table} at the significance level (α) = 5% for db (N-1) is 14. Based on the value of t_{table} at the significance level 5%, the t_{count} of pre and post-test is 7.655. If compared to the t_{table} at 1.761, the t_{table} is greater than t_{count} . Since the result corresponds to the rationale of decision-making, H_0 is thereby refuted. Similarly, by comparing the p-value in the sig. (2-tailed) a column with the significance level of (α), the significance of 2-tailed is lower than 0.05, indicating the rejection of H_0 . On that ground, the developed handbooks of guidance and counseling effectively improve teachers' competence in cultivating the creativity of elementary school students.

Results

In this R&D study, the designed handbooks consisted of four books: Book 1 Service Materials, Book 2 Teachers' Guideline, Book 3 Service Materials, and Book 4 Evaluation Guideline Results of each stage are discussed in the following sections.

Step I. Analysis of potential and problem

According to the data of an interview with several teachers of elementary school reported that many educational institutions, specifically elementary schools, have yet to provide a well-structured guidance and counseling program. To worsen, specific guidelines on the implementation of guidance and counseling sessions, which can direct the teachers in promoting students' creativity in elementary school, are unavailable. Such situations underpin the necessity to design a guideline for creativity development programs for elementary school students.

Step II. Data collection

This step focuses on examining a number of studies and relevant literature that discuss creativity and its development through guidance and counseling services. This activity is done to obtain materials in order to develop the initial product design so that the resulting product is genuinely supported by the results of a literature review.

Step III Creating initial product design

Procedures in this step revolve around the development of the initial draft of the handbook as a medium of creativity development, which encompasses several topics, namely (a) service programs (Guidance and Counseling Implementation Plan), (b) creativity development material, (c) teachers' guidelines, and (e) evaluation guideline.

Step IV. Expert validation

This step began by developing a tryout instrument of character evaluation that had been designed. Following this step was a validation process by experts, involving (1) evaluation expert, (3) character education expert, and (4) Indonesian linguist. The result of the validation serves as the basis for product revision. The data of the validation results are as follows.

Table 3: The Validation Results of Book 1 by Guidance and Counseling Expert Guidance and Counseling Implementation Plan

No.	Assessment Component	Guidance And Counseling Implementation Plan Score								Need Revision	
		1	2	3	4	5	6	7	8	Yes	No
1.	Determining guidance and counseling topics	10	10	10	10	10	10	10	10		√
2.	Establishing the field of guidance and counseling	10	10	10	10	10	10	10	10		√
3.	Determining the type of guidance and counseling services	10	10	10	10	10	10	10	10		√
4.	Determining the function of guidance and counseling services	10	10	10	10	10	10	10	10		√
5.	Determining the objectives of the guidance and counseling services	10	10	10	10	10	10	10	10		√
6.	Determining the strategies of the guidance and counseling services	10	10	10	10	10	10	10	10		√
7.	Determining the methods/techniques of the guidance and counseling services	10	10	10	10	10	10	10	10		√
8.	Clarity of the description of each activity	10	10	10	10	10	10	10	10		√
9.	Determining material of the guidance and counseling services	10	10	10	10	10	10	10	10		√
10.	Determining the media	10	10	10	10	10	10	10	10		√
11.	Assigning the administrator of the guidance and counseling services	10	10	10	10	10	10	10	10		√
12.	Appointing stakeholders	10	10	10	10	10	10	10	10		√
13.	Determining assessment plan	10	10	10	10	10	10	10	10		√
14.	Determining Follow-up	10	10	10	10	10	10	10	10		√
Average		10	10	10	10	10	10	10	10		√

Table 3 reveals that the average validation score of Book 1 Service Programs (Guidance and Counseling Implementation Plan) is 10, very good category. Simply put, revising all aspects in Book 1 is unnecessary.

Table 4: The Validation Results of Book 2: Teacher's Guideline by Guidance and Counseling Expert

No.	Assessment Component	Score	Need Revision	
			Yes	No
1.	Clarity of descriptions	10		✓
2.	Clarity of the expected objective formulation	10		✓
3.	Clarity of the component of the guidance and counseling services	10		✓
4.	Clarity of the description of strategies of the guidance and counseling services	9		✓
5.	The clarity of the description of the media and facilities	10		✓
6.	Clarity of the description of the evaluation	10		✓
AVERAGE		9.83		✓

According to Table 4, the average validation results of Book 2 Teacher's Guide by Guidance and Counseling Expert is 9.83, very good category. In other words, revising all aspects in Book 2 is unnecessary.

Table 5 : The Validation Results of Book 3: Material of Services by Guidance and Counseling Expert

No.	Assessment Component	Score	Need Revision	
			Yes	No
1.	Relevance of the book with the creativity topic	9		✓
2.	Clarity of the description of each lesson	10		✓
3.	Relevance of the stated objectives	10		✓
4.	Promptness of training activities	9		✓
5.	Clarity of the description of each exercise	10		✓
6.	Overall description of each topic in the book	10		✓
AVERAGE		9.67		✓

Based on Table 5, the average validation results of Book 3 Teacher's Guide by Guidance and Counseling Expert is 9.67, very good category. By that, revising all aspects in Book 3 is not necessary.

Table 6: The Validation Results of Book 4: Evaluation Guideline by the Guidance and Counseling Expert

No.	Assessment Component	Score of Each Creativity Indicator								Need Revision	
		1	2	3	4	5	6	7	8	Yes	No
1.	Clarity of the stated objectives	10	10	10	10	10	9	10	10		✓
2.	Relevance of the stated objectives	10	10	10	10	10	10	10	10		✓
3.	Relevance of the topic to each activity	10	10	10	10	10	10	10	10		✓
4.	Clarity of the description of each exercise	10	10	10	10	10	10	10	10		✓
5.	Clarity of score descriptor	10	10	10	9	9	9	9	9		✓
6.	Clarity of score interpretation	10	10	10	10	10	10	10	10		✓
AVERAGE		10	10	10	9.83	9.83	9.83	9.83	9.83		✓

As seen in Table 6, the average validation results of Book 4 Evaluation Guideline by Guidance and Counseling Expert is 9.89, very good category. Thereby, revising all aspects in Book 4 is not necessary.

Table 7 : Data Validation by the Expert of Developmental Psychology

No.	Assessment Component	Average Score of the Book		Need Revision	
		Book 3: Material of Services	Book 4: Evaluation Guideline	Yes	No
1.	Relevance of the book with the creativity topic	9	9.25		✓
2.	Clarity of the description of each lesson	9	9.13		✓
3.	Relevance of the stated objectives	9	9.13		✓
4.	Relevance of the topic to each activity	9	9.13		✓
5.	Clarity of the description of each exercise	9	9.13		✓
6.	The relevance of the exercise with the student development (elementary school, fourth, fifth, and sixth grade)	9	9.13		✓
7.	Overall description of each topic in the book	9	9.13		✓
AVERAGE SCORE		9	9.15		✓

The above Table 7 reveals that the average validation results of Book 3, Material of Services, and Book 4, Evaluation Guideline, is 9 and 9.15, respectively. In other words, no aspects in Book 3 and Book 4 require a revision.

Table 8 : Data Validation by the Expert of Instructional Design

No.	Assessment Component	Average Score of the Handbook				Need Revision	
		Book 1: PLBK	Book 2: Teachers' Guideline	Book 3: Material of Services	Book 4: Evaluation Guideline	Yes	No
1	The design of the handbook is in line with the content	9	9	9	9		✓
2	The clarity of the design of the book in delivering the content	9	10	9	10		✓
3	Design of the handbook's cover	10	10	10	10		✓
4	Font size on the handbook's cover	7	7	7	8	✓	
5	Font type on the handbook's cover	7	7	7	8	✓	
6	Colors selection of the handbook's cover	8	8	8	9		✓
7	Font size in the handbooks	9	9	9	9		✓
8	Font type in the handbooks	10	10	10	10		✓
9	Design of the handbook's pages	8	8	8	8		✓
10	Dimension of the book	9	9	9	9		✓
11	Overall appearance of the handbooks	9	9	9	9		✓
Average Score		8.64	8.73	8.64	9		

In Table 8, the average validation results of Book 1 (Guidance and Counseling Implementation Plan) and Book 3 (Material of Services) is 8.64. While the average score of Book 2 (Teacher's Guideline) and Book 4 (Evaluation Guideline) is 8.73 and 9, respectively. Revision is essential for the aspects scored below 7.0 (in this case, the aspects requiring revision are font size and font model on books' covers).

Table 9: Data Validation by the Indonesian Linguist

No.	Assessment Component	Average Score of the Handbook				Need Revision	
		Book 1: PLBK	Book 2: Teachers' Guideline	Book 3: Material of Services	Book 4: Evaluation Guideline	Yes	No
1	Diction	9	9	9	9		✓
2	Coherence between sentences	9	9	8	9		✓
3	Coherence between paragraphs	9	8	8	8		✓
4	Clarity of each sentence	9	8	8	9		✓
5	Clarity of the main idea of the paragraph	9	9	8	9		✓
6	Capitalization	8	8	8	8		✓
7	Punctuation marks	8	8	7	8	✓	
8	Indonesian writing convention	8	8	7	8	✓	
9	Readability and comprehensibility of the handbooks	9	9	9	9		✓
Average Score		8.67	8.44	8	8.6		

In Table 9, the average validation results of Book 1 (Guidance and Counseling Implementation Plan), Book 2 (Teacher's Guideline), Book 3 (Material of Services), and Book 4 (Evaluation Guideline) is 8.67, 8.44, 8, and 8.6, respectively. Aspects that need revision are the punctuation mark and the Indonesian writing convention in Book 3.

Step V: Revision

In this step, revision on the initial product was performed based on the data by the validation experts. Revision is needed for the aspects scored below 7.0 (in this case. The output of this process is a guideline validated by the experts, i.e., guidance and counseling experts, developmental psychology experts, instructional design experts, and Indonesian language linguists. The guideline encompassed Book 1 Guidance and Counseling Implementation Plan, Book 2 Teachers' Guideline, Book 3 Service Materials, and Book 4.

Step VI. Small-scale trial

The first process was the development of the tryout instrument. The process was followed by a small-scale trial. As many as nine elementary school teachers were involved as its participants. Provided in Table 8 below are the results of the trial.

Table 10 : Results of a Small-scale Trial of Guidance and Counseling Implementation Plan

No.	Assessment Component	Comprehension		Implementation		Revision	
		Comprehensible (%)	Incomprehensible (%)	Comprehensible (%)	Incomprehensible (%)	Yes	No
1	Guidance and Counseling Implementation Plan 1	100	0	100	0		✓
2	Guidance and Counseling Implementation Plan 2	100	0	100	0		✓
3	Guidance and Counseling Implementation Plan 3	100	0	100	0		✓
4	Guidance and Counseling Implementation Plan 4	100	0	100	0		✓
5	Guidance and Counseling Implementation Plan 5	100	0	100	0		✓
6	Guidance and Counseling Implementation Plan 6	100	0	100	0		✓
7	Guidance and Counseling Implementation Plan 7	100	0	100	0		✓
8	Guidance and Counseling Implementation Plan 8	100	0	100	0		✓

The results of the small-scale trial of Guidance and Counseling Implementation Plan reveal that the Guidance and Counseling Implementation Plan program is 100% comprehensible and practical. This data becomes the basis for no more revisions to the Guidance and Counseling Implementation Plan.

Table 11: Results of a Small-scale Trial of Material of Services

No.	Assessment Component	Comprehension		Implementation		Revision	
		Comprehensible (%)	Incomprehensible (%)	Comprehensible (%)	Incomprehensible (%)	Yes	No
a.	Fluent Thinking Skill						
1)	Description of each material	100	0	100	0		✓
2)	Objective formulation	100	0	100	0		✓
3)	Clarity of the description of each exercise	100	0	100	0		✓
b.	Flexible Thinking Skills						
1)	Description of each material	100	0	100	0		✓
2)	Objective formulation	100	0	100	0		✓
3)	Clarity of the description of each exercise	100	0	100	0		✓
c.	Original Thinking Skills						
1)	Description of each material	100	0	100	0		✓
2)	Objective formulation	100	0	100	0		✓
3)	Clarity of the description of each exercise	100	0	100	0		✓
d.	Elaboration Skills						
1)	Description of each material	100	0	100	0		✓
2)	Objective formulation	100	0	100	0		✓
3)	Clarity of the description of each exercise	100	0	100	0		✓
e.	Evaluation Skills						
1)	Description of each material	100	0	100	0		✓
2)	Objective formulation	100	0	100	0		✓
3)	Clarity of the description of each exercise	100	0	100	0		✓
f.	Curiosity						
1)	Description of each material	100	0	100	0		✓
2)	Objective formulation	100	0	100	0		✓
3)	Clarity of the description of each exercise	100	0	100	0		✓
g.	Imaginative						
1)	Description of each material	100	0	100	0		✓
2)	Objective formulation	100	0	100	0		✓
3)	Clarity of the description of each exercise	100	0	100	0		✓
h.	Adventurous (in responding to advancement)						
1)	Description of each material	100	0	100	0		✓
2)	Objective formulation	100	0	100	0		✓
3)	Clarity of the description of each exercise	100	0	100	0		✓

The handbook for the topic is 100% comprehensible and practical. This is based on the results of the small-scale trial of the Material of Services. Based on these data, it can be concluded that there is no need to revise the tested Material of Services.

Table 12: Results of a Small-scale Trial of Teachers' Guideline

No.	Assessment Component	Comprehension		Implementation		Revision	
		Comprehensible (%)	Incomprehensible (%)	Comprehensible (%)	Incomprehensible (%)	Yes	No
1)	Description	100	0	100	0		√
2)	Expected objective formulation	100	0	100	0		√
3)	Description of the component of the guidance and counseling services	100	0	100	0		√
4)	Description of the strategies of the guidance and counseling services	100	0	89	0		√
5)	Description of the media and facilities	100	0	100	0		√
6)	Description of evaluation	100	0	100	0		√

According to the results of the small-scale trial, the teachers' guideline aspect is 100% comprehensible and practical. These data indicate that there is no need for revisions to the tested teachers' guideline.

Table 13: Results of a Small-scale Trial of Evaluation Guideline

No.	Assessment Component	Comprehension		Implementation		Revision	
		Comprehensible (%)	Incomprehensible (%)	Comprehensible (%)	Incomprehensible (%)	Yes	No
1)	Formulation of the expected objectives	100	0	100	0		√
2)	Clarity of the description of each exercise	100	0	100	0		√
3)	Clarity of score descriptor	100	0	100	0		√
4)	Clarity of score interpretation	100	0	100	0		√

Based on the results of the small-scale trial, the evaluation guideline aspect is 100% comprehensible and practical. This data forms the basis for not revising the piloted evaluation guideline.

Step VII. Revision

This step involves the revision of the product. All of the processes in this step are based on the data of the small-scale trial. From the result of the trial, it is concluded that the product does not need to be revised.

Step VIII. Large-scale trial

This experimental research involved 15 elementary school teachers. It employed a pre-experimental design with one group pretest and posttest design. Provided in Table 12 are the descriptions of the pre-test and post-test results.

Table 14: Description of Research Data

Sources of Data	N	Min. Score	Max. Score	Mean	Variance
Pre-test	15	50	88	73.00	129.286
Post-test	15	72	98	86.67	44.238

According to Table 14, the minimum and maximum score of pre-test and post-test are significantly different (pre-test 50 minimum and 88 maximum, post-test 72 minimum and 98 maximum). Such results contribute to the difference in the mean score of pre-test and post-test (73.00 and 86.67, respectively). The variance score of pre-test is 129.286 and the post-test is 44.238.

Step IX. Final Revision

This step involves the revision of the product. All of the processes in this step are based on the data of the large-scale trial. One should note that revision is not necessary for this step since the handbooks are practical to elevate teachers' competence in providing quality guidance and counseling services and cultivating the creativity of elementary school students.

Discussion

Competent teachers play a significant role in the creativity development of elementary school students. A comprehensive guideline for teachers of guidance and counseling is needed, considering the differences in the teachers' competencies. The guideline, in addition to providing reference for teachers, is helpful to draw the students' involvement in creativity development programs.

In this research, a total of four handbooks are designed: Book 1 Guidance and Counseling Implementation Plan, Book 2 Teachers' Guideline, Book 3 Service Materials, and Book 4 The effectiveness of the handbooks in enhancing teachers' guidance and counseling competence, specifically about the improvement of student creativity, is further examined. This test was performed through an experiment on one group of teachers who have used the handbooks. Aslan and Aybek (2019) have examined the effectiveness of the experiment method on one group.

Experiment results reveal that the handbooks are fruitful in enhancing teachers' competence in providing quality guidance and counseling services and cultivating elementary school students' creativity. The handbooks' effectiveness is also evident from the handbooks' main characteristics, i.e., providing detailed, comprehensible explanations regarding the components of services (i.e., service programs, teacher guidelines, service materials, and evaluation procedures), which are practical for teachers and students. The handbooks are designed based on: (a) practices and theories underpinning the guidance and counseling services, (b) principles of technology in learning and the notion of technology as a means to help teachers and students to comprehend and take advantage of the contents within the handbooks. On top of that, the handbooks are (c) written in proper Indonesian language writing convention, where (d) the design of the cover, font style, and color of the handbooks are appealing to the teachers and students.

The research results indicate the possibility of enhancing the teachers' competencies through pre-service training and in-service training. Since education quality relies on teachers' quality, conducting training programs for teachers is necessary (Mathew et al., 2017).

The handbooks' effectiveness in elevating teachers' competence can prove that the handbooks are applicable for elementary school teachers in providing quality guidance and counseling services and cultivating the creativity of elementary school students.

The effectiveness of the handbooks in boosting teachers' performance has been confirmed in some previous studies. For instance, a study by Hulukati and Rahim (2018) finds that quality handbooks improve teachers' competencies in teaching Gorontalo language for young learners. In the same tune, Rahim and Puluhalawa (2018) report that a systematically-written handbook guarantees the enhancement of teacher's competence in providing guidance and counseling programs for shaping students' creativity.

Teachers are getting more and more complex tasks (Brante, 2009). With that being said, they are urged to improve their competencies continuously; this is also to optimize student development. Teacher competence enhancement is of paramount importance, and it is one of the critical elements in improving students' achievement. Thereby, teachers are demanded to continuously develop their competencies in facing the ever-changing world (European Commission, 2013). Such a notion is also in line with the idea by Berliner (1991) and Bromme (1992); they propose that students' maximum learning outcome can be achieved if the teachers continuously develop their professional competencies. Competence development and its transformation have been conceptualized as a part of performances; these aspects are determined by the individuals, situations, and social conditions embedded in professional contexts (Blömeke & Kaiser, 2017). Professional development for teachers is central to school's advancement and reformation (Rahim et al., 2015). By that, continuous and effective professional development programs are required for better teaching performances and students' learning (Rock & Wilson, 2005). Continuing professional development or CPD is considered a professional duty for teachers in 24 European countries or regions. In France, Lithuania, Romania, and Slovenia, taking part in CPD is a prerequisite for career advancement and salary increases. Ten countries provide teachers with financial allowances for obtaining further CPD qualifications (European Commission, 2013).

A similar policy has drawn the Indonesian government's attention; the policy has been implemented in various activities, either program managed by the board of education and culture or internal training and motivation program for teachers. The developed handbooks are expected to be useful resources for elementary school teachers in performing independent professional development programs. Wibowo (2019) has identified one of teachers' professional competence, i.e., undertaking continuous, independent professionalism development.

The present study's product, or the handbooks, is essential for elementary school teachers in enhancing their competencies in instilling students' creativity. Instilling elementary school students' creativity demands a competent teacher to ensure maximum outputs.

Conclusion

The present study generated the following conclusions. Firstly, in this research and development study, the designed handbooks consisted of four books for enhancing teachers' competencies in cultivating students' creativity. Secondly, the handbooks are fruitful in enhancing teachers' competence in providing quality guidance and counseling services and cultivating elementary school students' creativity. Thirdly, the handbooks should be used by elementary school teachers in instilling students' creativity, given that not all schools have adequate resources, such as the handbooks. Fourthly, the handbooks are, without doubt, beneficial for the regional and central government in promoting creativity among the society as the asset of the nation's sustainable development.

Recommendation

Based on the results of the research and development that has been done, then the future studies are expected to focus on R&D research, which emphasized designing handbooks for student creativity development at higher education levels. Future studies serve an important effort to develop student creativity on an ongoing basis, in the sense that efforts to develop student creativity are carried out at the elementary school level and need to be continued at the next level of education. Thus, student creativity's potential will be manifested in creative works that are beneficial to themselves and society.

Limitation

The limitations of this study are: (1) The first limitation is the experiment sample size, or 15 teachers, and the consideration of selecting a single group design. (2) The research subjects only comprise teachers of SD Laboratorium Universitas Negeri Gorontalo; this is because of the covid-19 pandemic. (3) Guidance and counseling services are limited to classical guidance since the handbooks are developed for elementary school teachers who are not prepared to provide guidance and counseling services (counselors).

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