

The College Academic Self-Efficacy Scale (CASES); An Indonesian Validation to Measure the Self-Efficacy of Students

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Abstract: This study examines the inventory properties of the Indonesian version of The College Academic Self-Efficacy Scale (CASES) which is originally Western, and was developed by Owen, S. V., & Froman, R. D. in 1988 to determine the level of student self-efficacy. The multi-stage random sampling method was used with 342 students as participants in Indonesia. Furthermore, the validity was analyzed using Cronbach's alpha item analysis that shows the coefficient of $\alpha > .3$, and the data showed that 33 items of Indonesian CASES were valid. In addition, as regards reliability, Cronbach's alpha was also used for the analysis, and the result shows that reliability coefficient of the Indonesian version of CASES was .931. Furthermore, it was concluded that the validity of CASES was satisfying to measure students' self-efficacy, and the construct of Indonesian CASES can be helpful and applicable in understanding student self-efficacy and ready to be used in subsequent researches.

Keywords: self-efficacy scale; self-efficacy; student; Indonesian CASES

Abstrak: Penelitian ini bertujuan untuk melakukan validasi *CASES* versi bahasa Indonesia yang awalnya berasal dari barat, inventori ini dikembangkan oleh Owen, S. V., & Froman, R. D. pada tahun 1988 untuk mengukur tingkat efikasi diri siswa. Metode pengambilan sampel yang digunakan adalah *multi-stage random sampling* dengan 342 siswa di Indonesia. Selanjutnya, validitas dianalisis menggunakan analisis butir Alpha Cronbach yang menunjukkan koefisien $\alpha > 0,3$, dan data menunjukkan bahwa 33 butir *CASES* versi Bahasa Indonesia valid. Selain itu, dalam analisis reliabilitas, Alpha Cronbach juga digunakan, dan hasilnya menunjukkan bahwa koefisien reliabilitas *CASES* versi Bahasa Indonesia adalah 0,931. Dengan demikian, disimpulkan bahwa *CASES* valid dan reliabel dalam mengukur efikasi diri siswa, dan konstruk *CASES* versi Bahasa Indonesia dapat diaplikasikan dalam mengukur efikasi diri siswa serta siap digunakan dalam penelitian selanjutnya.

Kata kunci: skala efikasi diri; efikasi diri; murid; *CASES* versi bahasa Indonesia

INTRODUCTION

Self-efficacy is the belief in one's ability to organize and carry out a series of actions that are considered essential in achieving the desired result, and it was introduced by Albert Bandura in 1977 in social learning theory (Brouwer et al., 2010). It is a powerful factor in determining how a person will act, think and react when faced with unpleasant situations (Alavi, Zargham-Boroujeni, Yousefy, & Bahrami, 2017; Bandura, 1995; Downes, Kristof-Brown, Judge, & Darnold, 2017).

Self-efficacy is essential in developing student personality to facilitate their studying process (Fan & Williams, 2010; Roddenberry & Renk, 2010; Roush, 2016; Van Dinther, Dochy, & Segers, 2011). However, in terms of academic functioning, self-efficacy level refers to variations across different levels of tasks, such as increasing the complexity of math problems; generality pertains to the transfer of self-efficacy beliefs across activities, such as different academic subject matters. The strength of perceived efficacy is measured by degrees of certainty that one can perform given tasks (Brouwer et al., 2010). Students who have high self-efficacy tend to make persistent efforts, diligence, tenacity, and perseverance (Datu, Yuen, & Chen, 2017; Lightsey Jr, Maxwell, Nash, Rarey, & McKinney, 2011; Raqshin & Nirjar, 2012). Also, they usually target high scores, have a greater curiosity to learn, actively ask questions in class, love to read and review literature, not easily discouraged, and consider failure to be a positive motivation (Al Mutir, 2015; Shikalepoh, 2016). Meanwhile, students with lower self-efficacy are much more likely to feel shy and hesitant about their capabilities, consider complex issues to be a threat, silent, hopeless, more stressed, (Bariyyah, 2015), and depressed (Bandura, 1995).

In addition, students with higher self-efficacy are more capable of adapting to the challenges and pressures of life (Axford, 2007). Furthermore, research conducted in the military community with 700 youths (19–22 years) as participants found that self-efficacy significantly contributes to the resilience of the participants (Roberts, 2007).

To increase students' self-efficacy, professional counselors need data to identify students' initial self-efficacy level, which also serves as a preliminary study of those students (Gordon & Steele, 2015; Jiang, 2016; Kesici, 2015) using self-efficacy scale. For this reason, the scale of self-efficacy is one of the instruments needed by counselors for guidance and counseling services (Mullen et al., 2015; Sharf, 2016). Also, the information gathered from the results can be used in providing personal and social assistance (Chan & Thomas, 2015). When counselors have a good personal understanding of the students, they will be capable of providing adequate support.

Measurement is based on a good conceptual analysis of the domain performance (Kamkari et al., 2013). However, the scope of assessment arises when self-efficacy is measured by a component function to perform various capabilities rather than for its integrated execution (Bandura, 1997). On the other hand, the counselors' main problem is the difficulty in getting instruments for collecting student data (Gordon & Steele, 2015). This is due to the lack of understanding and the unavailability of appropriate instruments. Interviews with several counselors revealed that they have not been optimally implementing social and personal guidance to enhance this development in students due to the unavailability of instruments. These instruments are needed to identify the initial level of a student's self-efficacy before the counselors determine the follow-up services for development (Mullen et al., 2015) and the basis of training programs.

Unavailability of self-efficacy inventory in Indonesia has made researchers interested in adapting the self-efficacy scale developed by Owen & Froman (Owen & Froman, 1988) called The College Academic Self-Efficacy Scale (CASES). CASES Inventory is based on the great, general and strong components of self-efficacy by Bandura (Bandura, 1997). However, the adaptation of CASES from English into Indonesian was carried out in several stages to avoid being bias due to differences in language and culture (Canino & Bravo, 1999; Jones et al., 2001). This study discusses the CASES adaptation into Indonesian, besides the Indonesian CASES is expected to be employed as an alternative instrument for future researches.

METHOD

In the adaptation process, the CASES needs to go through the procedure of translation (Hambleton et al., 2004; Maxwell, 1996; Schweizer & DiStefano, 2016). This process is carried out to maintain the validity of the CASES, wherein the "meaning" of each item must be understood in the same context as in the original language (Geisinger, 1994; Hambleton et al., 2004). There are several translation procedures that can be used by researchers. However, it is necessary for this procedure to be carried out objectively, to avoid cultural biases (Canino & Bravo, 1999; Jones et al., 2001). The adaptation procedure implemented by the researchers was a combination of several methods (Lenz et al., 2017). The steps for the adaptation procedure were researchers' translation, committee approach, and back-translation. The

translated version of CASES was then tested on 342 students spread all across Indonesia. A sampling test was conducted using multi-stage random sampling. Obtained data were then analyzed to test the CASES' validity and reliability. The validity test was conducted using Alpha Cronbach item analysis (Csikszentmihalyi & Larson, 2014; Popović, 2011) to determine the contribution (correlation) of each item to the total score by criteria $\alpha \geq .3$ (Cronbach, 1951). This analysis is considered good to test the construct validity of an instrument if its items are "legitimate" or valid. In addition, the reliability test was performed by determining the CASES' internal consistency. It involved reanalyzing the items, without the eliminated items. The analysis was conducted twice with the same method, which did not include items with a coefficient below 3.

RESULTS

There were three phases of translation in this study. Firstly, each CASES' item was translated from English (the original language) to Indonesian by the researchers. This was carried out multiple times in order to provide various translations and to avoid being bias due to a lack of understanding of the language.

After that, three bilingual people were selected by the authors. These people have an adequate understanding of both languages. They were asked to give the most appropriate translation of each item and to provide feedback for the draft translation if they thought it was necessary. This procedure is a modification of the approach suggested by the Brislin committee (Brislin, 1980). According to Brislin, a committee approach requires a group of translators to translate an instrument from the original into the target language. The error from a committee member is likely to be known and can be fixed by others. This method is expected to attain an acceptable level of objectivity.

The results of the translation discussed by the translators and also the researchers who have performed an adaptation of the instrument and have expertise in the preparation of research instruments. This method is referred to as the second committee approach which aims to objective and optimal instrument adaptation. The results of the first and second committee approach are the second draft of the Indonesian version CASES.

The next stage is the second draft test. According to Prieto (1992), testing the instruments that have been translated into the target language is an important step to produce an accurate translation. The research sample in this study was 342 students spread all across Indonesia. They were asked to complete a second draft instrument in the form of a questionnaire. Additionally, interviews were conducted to obtain feedback on confusing items on the instrument and to determine whether respondents had similar understanding with the researchers. The result of these trials was analyzed using an analysis of the item validity and reliability.

For the validity analysis, the Indonesian version of CASES was tested by analyzing the precision degree of its ability to measure construct/indicators/variables. To know the instrument's validity, the researchers drew a comparison between score items and the total score. In other words, this was defined by the difference of each item's score to the total score. This analysis is effectively used in measuring the validity and reliability of the Likert scale. The obtained results are presented in table 1.

The results in table 1 show that the coefficient $\alpha > .3$ means all items were valid (Cronbach, 1951). This study used the internal reliability method to determine the instrument's reliability. Internal reliability can be determined by analyzing data from one testing. Table 2. shows the Indonesian version CASES' reliability using the formula of Alpha Cronbach.

The result of instrument analysis shows that all items are reliable with coefficient $\alpha .931$. The alpha formula was used because it can be applied to get the non-dichotomy score and only requires single-trial administration (Azwar, 2014).

Table 1. The Result of Validity Analysis

Item-Total	Corrected Correlation
1. Taking well-organized notes during a lecture	.334465971
2. Participating in a class discussion	.568831846
3. Answering a question in a large class	.595511207
4. Answering a question in a small class	.607536769
5. Taking “objective” tests (multiple-choice, T-F, matching)	.547320281
6. Taking essay tests	.605391466
7. Writing a high-quality term paper	.542465585
8. Listening carefully during a lecture on a difficult topic	.45909168
9. Tutoring another student	.551865698
10. Explaining a concept to another student	.584286889
11. Asking a professor in class to review a concept you don’t understand	.506403286
12. Earning good marks in most courses	.569749137
13. Studying enough to understand the content thoroughly	.613398857
14. Running for student government office	.467130187
15. Participating in extracurricular events (sports, clubs)	.440804021
16. Making professors respect you	.604518856
17. Attending class regularly	.370707104
18. Attending class consistently in a dull course	.370945014
19. Making a professor think you’re paying attention in class	.498162016
20. Understanding most ideas you read in your texts	.594945253
21. Understanding most ideas presented in class	.654702216
22. Performing simple math computations	.355512959
23. Using a computer	.422797728
24. Mastering most content in a math course	.547199858
25. Talking to a professor privately to get to know him or her	.539467257
26. Relating course content to material in other courses	.669507477
27. Challenging a professor’s opinion in class	.495178096
28. Applying lecture content to a laboratory session	.515047917
29. Making good use of the library	.568842655
30. Getting good grades	.458992182
31. Spreading out studying instead of cramming	.512886873
32. Understanding difficult passages in textbooks	.589809113
33. Mastering content in a course you’re not interested in	.516637513

Table 2. The Result of Reliability Analysis

Reliability Statistics	
Cronbach's Alpha	N of Items
.931	33

DISCUSSION

The results of the Indonesian CASES reliability test indicate that it comprises of 33 items, with a reliability coefficient of 0.931. It can thereby be concluded that the Indonesian CASES developed a high coefficient, indicating that the 33 items are valid and reliable. Validity is the extent to which an instrument

measures what it is intended to measure (Clifford et al., 2012). In addition, reliability is an essential characteristic of any good test: for it to be valid at all, a test must be reliable as a measuring instrument (Susanto, 2016). On the other words, the instrument can then be used in subsequent researches.

The next stage is to carry out the back translation for the third draft, from Indonesian into English. According to Brislin (1980), translation is the stage where researchers ask someone who is considered bilingual to translate the instruments from the target language (Indonesian) to the original language (English). This results in questionnaire translation CASES in English.

The final stage is to compare the quality of the original instrument in English to the translation results, which is also in English. Both of these instruments were compared using the language for each item. To avoid bias that might arise and get the aimed results, the researchers asked independent third parties to conduct the examination. By being independent, that means they had no idea about the previous stages. Based on the translation procedure from the fourth stage, the third draft instrument CASES adaptation in Indonesian was sufficiently accurate and reliable to be used as an instrument in this study.

CONCLUSION

The inventory of CASES translated from English (the original language of the instrument) into the Indonesian language (Bahasa), and then translated back into English to produce an accurate translation of the instrument. The results from validity and reliability analysis tested to 342 students spread across Indonesia shows that the items on Indonesian CASES, developed after an analysis, are valid and highly reliable. In addition, the construct validity of the CASES tested also showed 33 items are valid, and for this reason, this instrument can be used to collect data in a similar study in the future. It is concluded that the construct of the Indonesian CASES can help identify the self-efficacy of students in Indonesia.

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Factors Affecting the Wisdom of Counselors: Perceptions of Indonesian Pre-service Counselors

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Abstract: Early theoretical and empirical studies have recommended scholars to explore the factors affecting wisdom of counselors. To enact this void, the present study explores the factors affecting wisdom from the perspectives of Indonesian pre-service counselors (henceforth, participants). This study employed survey design to capture the participants' perceptions. Participants involved in this study were 517 sixth semester pre-service counselors from eleven Guidance and Counseling Departments in Indonesia. Data were collected using questionnaire of Counselor Wisdom Antecedents Scale in the form of Likert five-level scale. The data were then analyzed using descriptive statistics and exploratory factor analysis. The findings captured that there are six factors affecting wisdom of counselor from the perspectives of Indonesian pre-service counselors, namely: (1) social interaction and learning from experiences, (2) values and personality, (3) personal attributes, (4) meta-cognitive skills (critical and depth thinking skills), (5) context-facilitative, and (6) expertise/professionality. The results of this study recommend that counselor educators in the counseling education and supervision programs consider and optimize these factors to develop the wisdom of pre-service counselors.

Keywords: counselor education and supervision; factors affecting wisdom; guidance and counseling; pre-service counselor; wisdom

Abstrak: Kajian teoretik dan empirik terdahulu merekomendasikan untuk mengeksplorasi berbagai faktor-faktor kearifan konselor. Tujuan penelitian ini adalah mengeksplorasi berbagai faktor-faktor kearifan konselor menurut pandangan calon konselor Indonesia. Penelitian menggunakan metode deskriptif jenis survei. Partisipan penelitian berjumlah 517 calon konselor semester keenam dari sebelas Departemen Bimbingan dan Konseling di Indonesia yang dipilih menggunakan teknik *two stage random sampling*. Pengumpulan data menggunakan kuesioner Skala Faktor-faktor Kearifan Konselor yang berbentuk skala lima jenjang. Teknik analisis data menggunakan statistik deskriptif dan analisis faktor eksploratoris. Hasil penelitian menunjukkan terdapat enam faktor kearifan konselor menurut pandangan calon konselor Indonesia, yaitu: (1) interaksi sosial dan belajar dari pengalaman; (2) nilai-nilai dan kepribadian; (3) atribut pribadi; (4) kecakapan metakognitif; (5) konteks-fasilitatif; dan (6) kepakaran. Implikasinya, pendidik konselor dalam program pendidikan dan supervisi konselor perlu memerhatikan dan mengoptimalkan keenam faktor tersebut untuk mengembangkan kearifan calon konselor konselor.

Kata kunci: pendidikan dan supervisi konselor; faktor-faktor yang memengaruhi kearifan; bimbingan dan konseling; calon konselor; kearifan

INTRODUCTION

Counselor's wisdom is one of the most essential and appealing issues to be studied in the context of a pluralistic and multicultural society. In counseling, wisdom plays a crucial role as the fundamental quality of personality and the ultimate competence of effective multicultural counselors (Hanna, Bemak, & Chung, 1999; Hanna & Ottens, 1995; Osterlund, 2014, 2016; Phan, Rivera, Volker, & Maddux, 2009). The counselor's wisdom is also seen as important and can influence the effectiveness and efficacy of counseling (Germer & Siegel, 2012). In multicultural counseling, wisdom is defined as "a set of specific cognitive and affective traits that are directly related to the ownership and development of life skills and understanding needed for a better life, fulfilment of life needs, effective adjustments, and insights on the nature of self, other people, environment, and interpersonal interactions" (Hanna et al., 1999; Hanna & Ottens, 1995). The wisdom of multicultural counselors includes cognitive and affective dimensions and awareness. Cognitive dimensions include dialectical reasoning, efficient coping skills, tolerance of ambiguity, sharpness of view, problem finding and alleviation, and metacognition. Meanwhile, affective and awareness dimensions include empathy, concern, feeling recognition, de-automation, and ingenuity.

In order to become an effective multicultural counselor and multicultural clinical psychotherapist, wisdom is seen as more important than intelligence (Hanna et al., 1999; Levitt & Piazza-Bonin, 2016). A study found that 14% of multicultural counseling competencies are influenced by the counselor's own wisdom (Phan et al., 2009). Various studies report that wisdom is a personal characteristic of an effective counselor, contributing significantly between 5–12% of the counseling outcomes (Green, Barkham, Kellett, & Saxon, 2014; Laska, Smith, Wislocki, Minami, & Wampold, 2013; Nissen-Lie, Havik, Høglend, Monsen, & Rønnestad, 2013; Owen & Hilsenroth, 2014; Saxon & Barkham, 2012) the recovery rate of counselee in individual counseling ranges from 23.5 to 95.6% (Saxon & Barkham, 2012). Conversely, multicultural counselors who only have intelligence without wisdom cannot protect themselves and will only be trapped into "foolishness" behaviour as opposed to "wise" behavior, namely unrealistic optimism, egocentrism, invulnerability, omnipotence, and omniscience (Aczel, 2019; Sternberg, 2005, 2019; Sternberg, Reznitskaya, & Jarvin, 2007) which can jeopardize and frustrate multicultural counseling processes, alliances and outcomes. Ineffective counselors proved to contribute 12.6% to the dropout from the counseling session and 10.1% decline in the psychological well-being of the counselee (Saxon, Barkham, Foster, & Parry, 2017).

Expert belief that wisdom is a form of virtue in counseling that develops dynamically and can be developed in the education and supervision of counselors (Tukiainen, 2010). Theoretical and empirical studies of the factors that influence wisdom in other fields have been carried out by experts and researchers in the international world. Experts who are members of the Berlin Wisdom Paradigm (Baltes, Glück, & Kunzmann, 2002; Kunzmann & Baltes, 2005; Stange & Kunzmann, 2008; Staudinger, 1999; Staudinger & Glück, 2011) grouped factors that influence wisdom into (1) context-facilitative factors, such as age, gender, social interactions, education, religion, and culture, (2) expertise factors, including: mentors/role models, experiences of sustainable practice, professional education and training, and life experience, and (3) personal factors, including: intelligence, personality traits, emotional skills, and motivation. Laypeople conceptions (Glück & Bluck, 2011) report that wisdom is influenced by positive and negative experiences, learning from wise people, experiences facing negative events, studying philosophy, confronting death, confronting uncertainty, growing old, religious/spiritual experiences, and following spiritual guidance gradually. Meanwhile, other research found eight facilitative conditions that influence wisdom according to the views of educators who were nominated wisely, namely: work experience, life experience, social interactions, observation, education in the family, professional development, religion, and reading (Chen, Wu, Cheng, & Hsueh, 2011). This means that participants' backgrounds can cause a variety of views about the factors that influence wisdom.

On the other hand, studies of the factors that influence the counselor's wisdom the perspectives of pre-service counselors are still scant. Thereby, this study can contribute to develop the wisdom from the perspectives of pre-service counselors in the education program and counselor supervision in Indonesia. Based on this rationale, this research is focused on the exploration of the factors that influence the wisdom of counselors from the perspectives of Indonesian pre-service counselors. The research question posed is: What factors influence the wisdom of counselors from the perspective of Indonesian pre-service counselors?

METHOD

This study employed survey design to explore various facts, opinions, attitudes, and certain behaviors factors that influence the wisdom of counselors according to the Indonesian pre-service counselors' perspectives. Participants involved were 517 Indonesian pre-service counselors who were sixth semester students from eleven Department of Guidance and Counseling in Indonesia. They were selected using a two stage random sampling technique. The characteristics of the participants were presented in table 1. Several aspects were highlighted such as the column on religious affiliation, M = male; W = Woman; I = Islam; CC = Catholic Christianity; PC = Protestant Christianity; H = Hindu.

Data in this study were collected using the Skala Faktor-faktor Kearifan Konselor (Counselor Wisdom Factor Scale) (SAKK) developed by researchers. This scale was developed based on the construct of the Berlin Wisdom Paradigm theory (Baltes et al., 2002; Kunzmann & Baltes, 2005; Stange & Kunzmann, 2008; Staudinger, 1999; Staudinger & Glück, 2011) and Laypeople conceptions (Glück & Bluck, 2011). This scale measures 28 counselor wisdom factors, namely: religion, age, ethnicity, educational context (level and educational institutions), social interactions, professional training, sustainable practices, counseling competence, studying philosophy, learning dialectic thinking, learning using the Socratic dialogue method, experiential learning; learning through self-awareness techniques, meditation practice, life experience, role models, transformation of experience, learning to deal with uncertainty, spiritual guidance, attend the death ceremony, gender, intelligence, personality, motivation, value orientation, worldviews, and moral scales. SAKK is in the form of a rating scale with five levels, namely: 1 = highly irrelevant, 2 = not relevant, 3 = quite relevant, 4 = relevant, and 5 = very relevant.

The analysis of instrument quality (validity and reliability) was carried out as a prerequisite for obtaining valid research data. The results of the item validity analysis using item-total correlation showed that all items are valid with a index of rit = .497–0.624. The reliability analysis results using Alpha Cronbach obtained .909 (very high). That is, instruments are feasible to use to collect research data.

The data collection was carried out by using a paper and pencil questionnaire by visiting pre-service counselors in eleven Department of Guidance and Counseling according to the schedule agreed by the researcher, the Chair of the Department, and participants. The researchers asked for willingness and

Table 1. Research Participants

No.	Institution	Demography								Total
		Sex		Age		Religion				
		M	W	≤ 20 Years	> 20 Years	I	CC	PC	H	
1	Universitas Negeri Semarang (UNNES)	7	33	14	26	40	0	0	0	40
2	Universitas Negeri Yogyakarta (UNY)	10	54	23	41	59	0	5	0	64
3	Universitas Negeri Malang (UM)	17	34	6	45	46	2	2	1	51
4	Universitas Negeri Jakarta (UNJ)	13	59	33	39	69	0	3	0	72
5	Universitas Negeri Makassar (UNM)	15	53	27	41	67	1	0	0	68
6	Universitas Pendidikan Ganesha (UNDIKSHA)	6	22	4	24	6	0	0	22	28
7	Universitas Muhammadiyah Prof. Dr. Hamka (UHAMKA)	18	40	22	36	58	0	0	0	58
8	Universitas Ahmad Dahlan (UAD)	33	47	22	58	80	0	0	0	80
9	Universitas Katolik Indonesia Atmajaya	5	16	0	21	1	15	5	0	21
10	Universitas Kristen Indonesia (UKI)	4	7	2	9	0	0	11	0	11
11	Universitas Sanata Dharma (USD)	7	17	6	18	1	16	7	0	24
	Total	135	382	159	358	427	34	33	23	517

submitted a guarantee of data confidentiality to the participants before filling out the SAKK. Participants were then asked to fill in SAKK according to the filling instructions. After the data were collected, the data were then verified, processed, and analyzed.

Descriptive statistical analysis and exploratory factor analysis (EFA) were used to analyze the collected data (average and standard deviation) and. In this study, the EFA was used to explore and extract factors that influence the wisdom of counselors from the perspective of pre-service Indonesian counselors.

RESULTS

The results showed that there were 28 factors affecting the wisdom of counselors with an average score ranging from 2.8–4.6 on a scale of 1–5. The participants rated 17 factors as highly relevant for developing wisdom with an average score ranging from 4.1–4.6. The seventeen factors are: personality, counseling experience, motivation, social interactions, learning from wise people (counselor educators, mentors, role models, parents), professional training, learning through experience (the experiential learning), worldviews, learn from life experiences, intelligence, moral scales, experience transformation (internalization, integration, and reflection of experience), counseling competence, level of education, religion, value orientation, and learning through self-awareness techniques.

Table 2. Factors Affecting the Wisdom of Counselors based on Indonesian Pre-service Counselors

No.	Factors Affecting the Wisdom of Counselors	M	SD
1	Personality	4.6	.6
2	Counseling experience	4.5	.7
3	Motivation	4.4	.7
4	Professional development	4.4	.8
5	Learning from wise people	4.4	.7
6	Social interaction	4.4	.7
7	Intelligence	4.3	.7
8	Worldviews	4.3	.7
9	Moral reasoning	4.3	.7
10	Counseling competence	4.3	.8
11	Learning from experiences (ELT)	4.3	.7
12	Learning from life experiences	4.3	.7
13	Internalization, integration, reflective experience	4.3	.7
14	Religion	4.2	.7
15	Value orientation	4.2	.8
16	Level of education	4.2	.8
17	Learning from self-awareness	4.1	.8
18	Education institution	4.0	.9
19	Learning to deal with uncertainty	3.9	.8
20	Learning using Dialog Socratic method	3.8	.8
21	Learning to employ dialectic thinking	3.7	.8
22	Doing meditation	3.7	.9
23	Age	3.6	.9
24	Learning philosophy	3.6	.9
25	Spiritual counseling	3.5	1.0
26	Ethnic	3.4	1.1
27	Sex	3.1	1.1
28	Attending burial ceremony	2.8	1.2

The participants also assessed ten relevant factors in affecting the development of counselor's wisdom with an average score ranging from 3.5–4.0. The ten factors are: educational institutions, learn to deal with uncertainty, learn to use the Socratic dialogue method, meditation practice, learning dialectic thinking, studying philosophy, getting older, gradual spiritual guidance (e.g., Sufi traditions), ethnicity, and gender. Meanwhile, the factor of attending the burial ceremony was considered quite relevant in affecting the development of the counselor's wisdom. Detailed research results are presented in table 2. In table 2, M is the means, and SD is the standard deviation.

In this study, EFA was also carried out using the Principal Component Analysis (PCA) extraction method of PCA and orthogonal rotation (varimax) to summarize 28 factors into several factors of the counselor's wisdom. Verification of the adequacy of the sample is done through the Kaiser-Meyer-Olkin (KMO) test, while the correlation test between items is carried out using the Barlett's test of Sphericity. The test results show a KMO value of .904, which means great because it far exceeds the minimum

Table 3. EFA Test Result of Indonesian Pre-service Counselors' Perceptions of Factors Affecting Counselors' Wisdom

Factors of Counselors' Wisdom	Anteseden					
	1	2	3	4	5	6
Social interaction	.722					
Learning from life experiences	.694					
Experience transformation	.644					
Learning from self-awareness technique	.599					
Experiential learning (ELT)	.591					
Learning from wise men	.553					
Learning from uncertainty	.515					
Values		.725				
Motivation		.720				
Life views		.672				
Personality		.610				
Moral reasoning		.593				
Sex			.802			
Age			.719			
Ethnic			.648			
Attending burial ceremony			.538	.472		
Spiritual guidance			.460	.429		
Religion						
Learning philosophy				.757		
Learning dialogic thinking				.728		
Doing Meditation				.527		-.0401
Learning using Socratic dialogue				.481		
Professional development					.762	
Educational institution					.639	
Intelligence		.435			.536	
Level of education					.433	.407
Counseling competence						.713
Working experiences					.439	.539
Value of Eigen	8.47	2.38	1.64	1.38	1.20	1.09
% Variance	30.26	8.48	5.85	4.92	4.29	3.91

acceptable value of .5 (Field, 2009; Kaiser, 1974). The result of Barlett's Test of Sphericity $\chi^2(517) = 5530.517$; $p < .001$) indicated that the correlation between items is large enough and sufficient to carry out PCA analysis. This means that the data is sufficient for the EFA to test the wisdom factors in the view of prospective Indonesian counselors.

EFA test results using the PCA extraction method and orthogonal rotation (varimax) obtained six factors of wisdom counselors who have an Eigen value > 1 with a total variance obtained by 57.70%. Variance that can be explained by factors 1 is 30.26%, factors 2 of 8.48%, factors 3 of 5.85%, factors 4 are 4.92%, factors 5 equal to 4.29%, and factors 6 were 3.91%. Scree plots show inflection to maintain justification for six antecedents. Considering the large sample size and the convergence of the Scree Plots and Eigenvalue criteria, then 28 factors can be assigned to six factors for the counselor's wisdom in the view of prospective Indonesian counselors.

Table 3. shows the factor load after rotation. Factors that are grouped on the same factor are made into one main factor. In this test, there was one factor that was removed because it had a factor load of $< .40$, that factor was religion. In addition, there are six factors that experience cross-loading, namely: attending a death ceremony, spiritual guidance gradually, meditation practice, intelligence, level of education, and counseling experience.

Table 3. presents six factors for the counselor's wisdom according to the views of Indonesian pre-service counselors. The naming of these factors refers to the results of theoretical studies and relevant empirical findings. The first factor is called social interaction and learning from experience, which consists of social interaction, learn from life experiences, experience transformation (reflection, internalization, integration of experience), learning through self-awareness techniques, experiential learning, learn from wise people, and learning to deal with uncertainty. The second factor is called values and personality, which include values, motivation, and worldviews, personality, and moral scales. The third factor, called personal attributes, includes gender, age, ethnicity, attending the burial ceremony, and gradual spiritual guidance. The fourth factor is called metacognitive skills (critical and deep thinking) which consist of learning philosophy, learning dialectic thinking, meditation practice, and learning by the Socratic dialogue method. The fifth factor is called facilitative context which consists of: professional training; educational institutions, intelligence, and education level. The sixth factor is called expertise (professionalism), including level of education, counseling competence and counseling experience.

DISCUSSION

Geared under an implicit theoretical approach, this study found six of the 28 factors that influence the wisdom of counselors from the perspective of prospective Indonesian counselors. The six factors are social interaction and learning from experience, values and personality, personal attributes, metacognition, context-facilitative, and expertise (professionalism). The results of this study confirm the Berlin Wisdom Paradigm theory (Baltes et al., 2002; Stange & Kunzmann, 2008; Staudinger, 1999; Staudinger & Glück, 2011) that factors (antecedents) influence wisdom; include: (1) context-facilitative factors, such as: age, gender, social interactions, education, religion, and culture, (2) expertise factors, including mentors/role models, experience of ongoing practice, professional education and training, and life experience, and (3) personal factors, namely: intelligence, personality traits, emotional skills, and motivation. The results of this study also confirm the Laypeople conceptions study (Glück & Bluck, 2011) which reports that wisdom is influenced by positive and negative experiences, learning from wise people, experiences negative events, studying philosophy, confronting death, confronting uncertainty, growing old, religious/spiritual experiences, and following spiritual guidance gradually.

The results of the study also support previous empirical findings about facilitative conditions that influence wisdom according to the views of educators who are nominated wisely, namely: work experience, life experience, social interaction, observation, education in the family, professional development, religion, and reading (Chen et al., 2011). This study also confirms previous findings about the factors that influence the wisdom of counselors from the perspective of prospective ethnic Javanese counselors, as well as the consensus of counselors and counselor educators (Herdi, Kartadinata, & Taufiq, 2018a, 2018b, 2018c; Herdi, Kartadinata, & Taufiq, 2017).

Social Interaction and Learning from Experiences

Factors of social interaction and learning from experience include social interaction, learning from life experiences, experience transformation (reflection, internalization, and experience integration), learning through self-awareness techniques, experiential learning, learning from wise people, and learning to deal with uncertainty. The results showed that 30.26% of social interaction factors and learning from experience contributed to the development of the counselor's wisdom in the view of Indonesian pre-service counselors. The results of this study are relevant to the opinions of experts and previous findings. A meta-analysis study reports that social interaction and mentorship/role models are important predictors of wisdom (Baltes et al., 2002; Baltes & Staudinger, 2000; Kunzmann & Baltes, 2005; Stange & Kunzmann, 2008; Staudinger, 1999). Recent studies using the Social Ecological Approach also found that wisdom can be developed through social interactions and transactions (Igarashi, Levenson, & Aldwin, 2018). This is because the concept of wisdom comes from mutual agreement (Staudinger & Baltes, 1996) which often manifests itself in social situations (Jeste & Oswald, 2014; Montgomery, Barber, & McKee, 2002) and is aimed at achieving public benefit, social harmony and peace. In the tradition of Sufism also emphasized the importance of the role of a mentor (sheikh and dervish) in guiding the murshid to develop and reach the level of ma'rifat (Frager, 2013).

A study of the Experience Corps model reports that wisdom can be activated through experience, reflection, and dialectics in intergenerational social interactions - counselor educators and prospective counselors (Parisi et al., 2009). Through mentorship, counselor educators can formulate alternative and interesting solutions to reflect prior knowledge and experience so as to be able to consider the complexities of life in a more comprehensive and meaningful way. Counselor educators can be role models who are capable of reflective and wise thinking. If wisdom develops and can be developed throughout life, there is a possibility that early life experiences will help in developing the quality of wisdom.

An empirical study found that the key factors that influence the development of wisdom, is learning from experience through reflection, integration, and transformation of experience (Brown, 2004). The development of wisdom requires transcendence and projections that can be obtained through self-awareness, self-testing, and reflection on behavior, interactions, and lifelong experiences (Ardelt, 2009; Ardel & Oh, 2010; Levitt, 1999; Staudinger, 1999). The results of this study are also relevant to the research findings which state that the factors that influence wisdom are: learning from life experiences, social interactions, and education in the family (Chen et al., 2011), life experience, mentorship, and parenting as a context-facilitative factor (Baltes et al., 2002; Baltes & Staudinger, 2000; Kunzmann & Baltes, 2005; Stange & Kunzmann, 2008), mentorship in overcoming life problems (Baltes & Staudinger, 2000; Staudinger, 1999; Staudinger & Glück, 2011). Results of a meta-analysis study (Baltes & Staudinger, 2000) found that 26% of wisdom variability was influenced by general life experience and specific professional experience. Similar research shows that the learning factor from experience contributes 46.7% to the wisdom of prospective counselors from the counselor's perspective (Herdi et al., 2018c), 28.8% from the perspective of prospective ethnic Javanese counselors (Herdi et al., 2017), and an average of 4.5 on a scale of 5 from the perspective of counselor educators (Herdi et al., 2018b).

In order to become a wise counselor, pre-service counselors need to be given the opportunity to reflect, ask questions, internalize, and integrate their personal and professional experiences (Hanna et al., 1999). Empirical studies show the transformation of experience (reflection, internalization, and integration of experience) and self-awareness contribute 28.94% to the development of counselor's wisdom from the counselor's perspective (Herdi et al., 2018a). Wisdom depends on the ability of prospective counselors to integrate and reflect lifelong experiences and utilize these experiences in everyday life (Baltes & Staudinger, 2000) as well as using it in counseling practices in authentic scenes.

Values and Personality

The values and personalities given are values, motivation, life judgments, personality, and moral scales. The results showed that 8.48% of values and personality contributed to the development of the counselor's wisdom in the view of prospective Indonesian counselors. Theoretical and empirical studies of the findings of cultural values (Le, 2008), values of openness (Le, 2011), openness to experience (Mickler & Staudinger, 2008; Staudinger, Dörner, & Mickler, 2005), and personality (affective, value

orientation, motivation, and inter-personality) (Kunzmann & Baltes, 2003) is an ontogenesis factor of wisdom. Personality (openness to experience) contributes 21% to wisdom-related knowledge and scales (Baltes & Staudinger, 2000) and 14% of wisdom-related performance (Staudinger, Maciel, Smith, & Baltes, 1998). Another study reported that personality factors (need of nurturance) had a significant positive correlation in the strong category ($r = .68$) and contributed 46.7% to the wisdom of prospective counselors (Herdi et al., 2018c), 28.8% according to the view of prospective ethnic Javanese counselors (Herdi et al., 2017), and an average of 4.5 on a scale of 5 according to the counselor educator's view (Herdi et al., 2018b).

Personal Attributes

The results showed that 5.85% of personal attributes (gender, age, ethnicity) and spiritual guidance contribute to wisdom according to the views of prospective Indonesian counselors. Empirical studies show that gender and age have a significant positive effect on overall wisdom and on the cognitive, reflective, and affective dimensions (Cheraghi, Kadivar, Ardel, Asgari, & Farzad, 2015). Other studies (Hollingworth, Sánchez-Escobedo, Graudina, Misiuniene, & Park, 2013) indicated that gender contributes 52% to the variation in wisdom of adolescents aged 15–18 years in Latvia, Lithuania, Mexico, Korea, and the USA. In adolescent boys, 34.7% of variation in wisdom is explained by factors of personality, responsibility, goal orientation, and creativity. In women, 38.3% of variation in wisdom is explained by factors of social influence, responsibility, goal achievement, and creativity. Other studies show that specifically women have the highest score on the affective dimension, while men on the cognitive dimension (Ardelt, 2009). Other results also show that men's wisdom experiences are more cognitively oriented and related to professional life, while women's wisdom experiences are related to events in the family, illness, or death (Glück, Strasser, & Bluck, 2009).

In psychosocial theory, wisdom is seen as the culmination of human development and one of the important positive outcomes of aging (Etezadi & Pushkar, 2013; Parisi et al., 2009) in old age the virtue of success facing a crisis of integrity against disunity (Erikson & Erikson, 1998; Erikson, Erikson, & Kivnick, 1994; Erikson, 1959). This view is supported by the fact that the majority of ordinary people that wise individuals average age above 60 years (Orwoll & Perlmutter, 1990). A cross-sectional study found that age has a significant positive relationship with wisdom (Pasupathi, Staudinger, & Baltes, 2001) and showed significant differences in wisdom (affective and reflective dimensions) in the five participant age groups (Asadi, Amiri, Molavi, & Noaparast, 2011). Middle and late adult individuals have significantly higher wisdom (affective and reflective dimensions) than young adult individuals and students (Ardelt, 2010; Webster, Bohlmeijer, & Westerhof, 2014; Webster, Westerhof, & Bohlmeijer, 2012). General wisdom tends to increase with age and experience (Jeste & Oswald, 2014; Thomas & Kunzmann, 2013). This fact is in line with the theory of crystallized intelligence that develops dynamically with age.

Religion, Spirituality, and Wisdom

A meta-analysis study shows that religion/spiritual is one of the context-facilitative factors of wisdom (Kunzmann & Baltes, 2005) and the source of wisdom concepts (Brezina & Van Oudenhoven, 2012; Önal, 2010). Empirical studies show that religious affiliation, religious/spiritual experience, and spiritual guidance can gradually influence the development of wisdom in the eyes of the general public (Glück & Bluck, 2011) and educators who are nominated wisely (Chen et al., 2011).

Metacognition

Metacognition factors, including: studying philosophy, learning dialectic thinking, meditation practice, and learning with Socratic dialogue. The results showed that 4.92% of metacognition factors (critical and deep thinking) contributed to the development of counselor's wisdom from the perspective of prospective Indonesian counselors. Previous experts and researchers view that metacognition is one of the main components of wisdom. Counselors with metacognitive skills will have concern for the limitations and estimates of knowledge, awareness of awareness, knowing about knowing, thinking about thinking, and intuitive knowledge (Hanna et al., 1999; Hanna & Ottens, 1995). Metacognition is also characterized by critical thinking skills that are directly related to wisdom (Barris & Ruff, 2011).

Context-Facilitative

Context-facilitative factors, including: professional training, educational institutions, and education levels. The results showed that in the view of prospective Indonesian counselors 4.29% context-facilitative contributed to the development of counselor's wisdom. The results of this study are relevant to expert opinions and previous empirical findings that one of the context-facilitative factors that influence wisdom is education and professional training (Baltes et al., 2002; Baltes & Staudinger, 2000; Chen et al., 2011; Staudinger, 1999). Education and / or experience have a strategic role in developing wisdom (Frantz, 2014).

Other experts propose and find ways to develop wisdom on campus, through practice, reflection, and integration of practical experience (Brown, 2004). This can be done by creating four facilitative conditions for the development of wisdom, namely: orientation towards learning, experience, interaction with others, and a conducive environment. Even Balance Theory of Wisdom experts suggested the importance of designing and implementing an infused curriculum to develop students' wisdom (Karelitz, Jarvin, & Sternberg, 2010; Sternberg, 2005, 2019; Sternberg, Jarvin, & Reznitskaya, 2008; Sternberg, 1998, 2005; Sternberg, Jarvin, & Grigorenko, 2009).

Expertise

Expertise factors (professionalism), including: counseling competence and counseling experience. The results showed that in the view of prospective counselors 3.91% expertise (professionalism) contributed to the development of counselor's wisdom. Expert studies and previous empirical findings also report that expertise factors such as experience of sustainable practice (Kunzmann & Baltes, 2005; Stange & Kunzmann, 2008) influence wisdom.

CONCLUSION

Indonesian pre-service counselors view that there are six factors that influence the counselor's wisdom, namely: (1) social interaction and learning from experience; (2) values and personality; (3) personal attributes; (4) metacognitive skills (critical and deep thinking); (5) context-facilitative; and (6) expertise (professionalism). Suggestions are addressed to various parties involved. First, pre-service counselors are expected to develop personal wisdom by: (1) increasing social interaction and learning from personal experiences and wise people (e.g. counselor educators, counselors, mentors, role models, and wise parents); (2) learning and practicing optimizing metacognitive skills (e.g., studying philosophy and learning dialectic thinking); and (3) follow authentic experience-based education and training to increase expertise (professionalism) in counseling. Secondly, counselor educators in the department of Guidance and Counseling and administrators of the Indonesian Guidance and Counseling Association (Asosiasi Bimbingan dan Konseling (ABKIN)) are expected to provide facilitative educational and supervisory supervision programs for the development of the wisdom of pre-service counselors. The intended counseling education program includes: (1) curriculum content containing content for developing wisdom, both specifically in the counselor's personal development course and integrated in each subject; (2) learning strategies can use experiential learning models in authentic scenes, Socratic dialogue, self-awareness techniques, meditation practice, spiritual guidance gradually; (3) evaluation of learning based on authentic assessment; and (4) counselor educators present themselves as wise individuals and counselors for pre-service counselors, both in the learning process and in everyday life. Third, the researcher is then expected to be able to study the factors that influence wisdom in the view of counselor and counselor educators, examine various variables of wisdom counselor consequences, and develop and test various learning strategies to develop the wisdom of pre-service counselors.

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The Development of Peace Counseling Model (PCM): Strategy of School Counselor to Reduce Students' Aggressive Behavior

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Abstract: This study aimed to develop a counseling model to reduce students' aggressive behavior, namely Peace Counseling Model (PCM). This counseling model uses the basic theory of peace education that is specifically implemented in counseling. This study adapted the research and development model formulated by Borg & Gall. The research used quantitative descriptive analysis. There was a strong agreement between experts and practitioners on the feasibility of the product being developed to be implemented by school counselor. The results of this study should be a reference to further research to test the effectiveness of PCM to reduce students' aggressive behavior.

Keywords: aggressive behavior; peace; peace counseling

Abstrak: Penelitian ini bertujuan mengembangkan sebuah model konseling untuk mereduksi perilaku agresif siswa, yaitu *PCM*. *PCM* dikembangkan menggunakan teori dasar pendidikan kedamaian yang secara spesifik terimplementasikan dalam konseling. Penelitian ini mengadaptasi model penelitian dan pengembangan yang dirumuskan oleh Borg & Gall. Teknik analisis data menggunakan analisis deskriptif kuantitatif. Ahli dan praktisi yang dilibatkan dalam proses pengembangan *PCM* menyatakan bahwa model konseling ini layak untuk diimplementasikan oleh konselor sekolah. Hasil penelitian ini seyogyanya dapat menjadi rujukan bagi peneliti selanjutnya agar menguji keefektifan *PCM* untuk mereduksi perilaku agresif siswa.

Kata kunci: perilaku agresif; kedamaian; konseling kedamaian

INTRODUCTION

One of the leaders of world peace, Mahatma Gandhi, once stated that to achieve peace, we must start with children (Johnson & Johnson, 2010; Khan, 2011). His statement shows that the building of peace of mind in children is one of the significant efforts that should be carried out; one of the attempts is through education (Hilker, 2011; Smith, 2010; Spaaij & Jeanes, 2013). Building peace of mind through an education process is called peace education (Zembylas & Bekerman, 2013). The building of peace of mind in children can support the success of education in minimizing conflict and acts of violence occurring, especially in schools.

Peace can be divided into two forms, namely, negative peace and positive peace (Galtung & Fischer, 2013). Negative peace is the emergence of a peaceful situation that is only limited to the absence of war. In contrast to negative peace, positive peace is a condition of ultimate peace. Positive peace is the peace

that is not only when there is no war, but also the absence of social injustice, impoverishment, and even humiliation of human dignity. Positive peace can be achieved through long cooperative processes and one of them through the educational process (Hilker, 2011; Smith, 2010). Educational efforts that are passed through must involve various components so that the educational goal of achieving positive peace is achieved.

In Indonesia, positive peace is something that all Indonesians want to achieve (Capie, 2016; Hutabarat, 2018). The statement was stated in the opening of the 1945 Constitution. This case proves that the aspirations of the Indonesian people to participate in maintaining order and world peace have been declared from the beginning. Therefore, peace of mind in every Indonesian citizen, including students who are studying in school, needs to be encouraged. One of the parties who have strong competence to help students develop the peace of mind is the school counselor through guidance and counseling services, even if examined in more detail, the school counselor does not specifically have a program in building a culture of peace in students.

Building peace of mind in children through education turns out to be inversely proportional to the problems that occur in students in schools, especially vocational high schools. Vocational high school students are in the adolescent development phase. This phase is the crisis phase and in a transition phase from children to adults. In the adolescent phase, there is also a search for self-identity that might trigger various problems. Understanding adolescents about their identity can encourage adolescents to behave better and is not easily influenced by the environment to prevent adolescents from negative self-identity (Sumiati, 2012). The research results showed that the finding phase for adolescent identity was significantly correlated to juvenile delinquency (Paramitha, 2013). Aggressive as one form of juvenile delinquency is physical or verbal behavior that has the purpose of intentionally hurting others (Myers & Smith, 2015). Aggressive behavior arises to respond to threats (according to perception or really exist) originating from other individuals or groups outside the group (MacLaren, Best, & Bigney, 2010).

Several studies have shown that aggressive behavior is one of the problems that need the attention of many parties. A study conducted at a junior high school in Yogyakarta showed that 1% of students had very high aggressiveness; 13% of them had high aggressiveness; 37% of them had moderate aggressiveness; 43% of them had low aggressiveness; and 6% of them had very low aggressiveness (Alhadi, Purwadi, Mulyana, Saputra, & Supriyanto, 2018). Subjects in the research conducted at the junior high school level specifically had different levels of development from vocational students but still had similarities, namely the subjects were in the adolescent phase. When viewed from gender, there was no difference in the level of aggressiveness between female students and male students (Saputra, Hanifah, & Widagdo, 2017).

The conditions described in the previous paragraph indicate that there is still a gap between expectation and reality in the field. If the problem of aggressiveness among students is not immediately resolved, a culture of bullying for example, will have a negative impact on the comfort of students in school (Nickerson, Singleton, Schnurr, & Collen, 2014) and students' involvement in learning (Cornell, Shukla, & Konold, 2016; Einarsen, Skogstad, Rørvik, Lande, & Nielsen, 2018; Mehta, Cornell, Fan, & Gregory, 2013). The culture of bullying that occurs among students is one of the predictors of a high level of dropout in students (Cornell, Gregory, Huang, & Fan, 2013). The school climate which is not conducive due to the emergence of various aggressive behaviors also ultimately has an impact on the decline in academic achievement of students (Kosciw, Palmer, Kull, & Greytak, 2013; Milam, Furr-Holden, & Leaf, 2010; O'Malley, Voight, Renshaw, & Eklund, 2015; Wang et al., 2014).

One effort to build a conducive climate in schools is by building peace of mind in students through education, commonly known as the concept of peace education (Harris, 2010; Harris & Morrison, 2012; Salomon & Cairns, 2011). The essence of peace is in the human mind (Anand, 2014). Therefore, the school counselor should take extra efforts to build peace in every student's mind at school. Peace education, based on the study results, can be applied in Indonesia (Saputra, 2016; Saputra, Widiyanti, & Dina, 2016).

Specifically, peace education implemented to reduce aggressive behavior is conducted in counseling settings through peace counseling. Peace counseling is developed using basic theories of peace education that can encourage the awakening of awareness about non-violence, anti-justice, anti-environmental

concerns, and other values of peace (Galtung & Fischer, 2013; Navarro-Castro & Nario-Galace, 2010). Peace education arises to respond to the many problems of violence, such as physical and non-physical wars resulting in casualties (Navarro-Castro & Nario-Galace, 2010).

Peace counseling is also compatible to be implemented in Indonesia (Saputra & Handaka, 2017b). One of the goals of peace counseling is to develop students 'peace of mind' so that counseling becomes students' mediators to reduce their aggressive behavior. Until now, the concept of peace counseling has not been specifically developed, especially in Indonesia. Peace counseling is also not yet popular and has no form, so this is the basis for this development research. Specifically, this study aimed to develop PCM that can be used to help students reduce their aggressive behavior.

METHOD

This research used research and development design with the Borg & Gall pattern. This research and development was limited to three stages of development, namely: (1) identification of the level of aggressive behavior that forms the basis of PCM development, (2) preparation of a hypothetical draft PCM product to reduce aggressive behavior, and (3) an assessment by one expert and one practitioners to assess the feasibility of the PCM that has been developed (Gall, Borg, & Gall, 2003).

In detail, the activities carried out at the three stages of research and development were: (1) identifying the level of students' aggressive behavior by distributing instruments in the form of a scale of aggressive behavior to students at Muhammadiyah Vocational High School of Yogyakarta, especially class XI. The scale of aggressive behavior consists of 38 items, which after testing the validity, was declared valid. The reliability test results showed a coefficient of 0.823 categorized as having a high level of reliability (Saputra & Handaka, 2017a). The population involved in this study amounted to 298 students. This study applied stratified random sampling, and the samples were 160 students; (2) Preparing an initial draft of PCM to reduce the students' aggressive behavior. This draft was prepared by looking at the characteristics of students' aggressive behavior problems and also based on the concept of peace education theory; (3) carrying out a feasibility assessment by experts and practitioners, namely a department of guidance and counseling lecturer from Universitas Ahmad Dahlan with innovation expertise in guidance and counseling and a school counselors that have the expertise to provide counseling services to promote behavioral change from counselees, especially aggressive behavior. Experts and practitioners involved were asked to assess by filling out the product feasibility assessment sheet developed. The expert and practitioner assessment sheets consist of three aspects, namely a general description of the product, product usability, and product accuracy.

This study employed descriptive qualitative techniques with percentages. This data analysis was carried out to describe the level of aggressive behavior of students in Muhammadiyah Vocational High School of Yogyakarta so that it would be known the percentage of students who had aggressive behavior in the very high, high, moderate, low, and very low categories. In addition, the analysis of the inter-rater reliability (IRR) coefficient of Cohen's Kappa describes the level of feasibility of the product being developed, namely PCM, to reduce the students' aggressive behavior.

RESULTS

Based on the formulation of the problem and the purpose of the study, the research results describe three main parts. First, the data on the level of aggressive behavior of vocational school students in Yogyakarta were divided into several categories, namely: very high, high, moderate, low, and very low. Second, a hypothetical draft of the product was presented, namely, PCM, to reduce the students' aggressive behavior. Third, the product feasibility data was presented, namely, PCM, to reduce the students' aggressive behavior.

Students' Aggressive Behavior Level

Identification of vocational high school students' aggressive behavior level in Yogyakarta was conducted by using an aggressive behavior scale (Saputra & Handaka, 2017a) that was then analyzed statistically and descriptively by using SPSS. The analysis results are presented in Table 1. Based on the analysis results presented in Table 1., the score range was obtained for categorization of aggressive

Table 1. Descriptive Statistics

	N	Range	Minimum	Maximum	Sum	Mean	Std. Deviation
VAR00001	160	76	39	115	12596	78.7250	13.33834
Valid N (listwise)	160						

Table 2. Score Range of Categorization of Aggressive Behavior Scale

Category	Score Range
Very low	58.74–39
Low	58.75–72.04
Moderate	72.05–85.34
High	85.35–98.62
Very high	98.63–115

Table 3. Aggressive Behavior Level

Category	The number	Percentage
Very high	7	5%
High	42	26%
Moderate	64	40%
Low	34	21%
Very low	13	8%

behavior scale, as shown in Table 2. Based on Table 2., the percentage of aggressive behavior level is presented in Table 3. Table 1 displays that the number of samples involved to fill the scale of aggressive behavior was 160 students in Muhammadiyah Vocational High School of Yogyakarta. The highest score of the level of aggressive behavior was 115, and the lowest score of the level of aggressive behavior was 39, with a standard deviation of 13.33834. Furthermore, in table 2, the range of score data in the category of aggressive behavior in the very low category was 58.74–39; low category of 58.75–72.04; medium category of 72.05 - 85.34; high category of 85.35-98.62; and the very high category was 98.63-115. Based on table 3, it is known that the data on the level of aggressive behavior of students in Muhammadiyah Vocational High School of Yogyakarta: 5% of them were in the very high category; 26% of them were in the high category; 40% of them were in the moderate category; 21% of them were in the low category; and 8% of them were in the very low category (Saputra & Handaka, 2018).

Draft of PCM Hypotetic to Reduce Students' Aggressive Behavior

PCM was developed based on the concept of peace education to reduce conflicts that lead to peace of heart, both intrapersonal and interpersonal. The peace counseling model developed included the following stages: (1) the rational peace counseling model, (2) exploring the root of the problem of violence, (3) reflection of violent phenomena from various perspectives, (4) teaching finding alternative violent behavior, (5) looking for different forms of violence and eliminate them, and (6) evaluation and follow-up. The peace counseling model stages were carried out for six counseling session with a duration of about 35 minutes per session. The stages were undertaken to help students reduce their aggressive behavior. The six steps of peace counseling are illustrated in Figure 1.

Feasibility of PCM to Reduce Students' Aggressive Behavior

The product developed, namely PCM to reduce aggressive behavior, was assessed as feasible by one expert and one practitioner. The results of the product feasibility assessment by experts and practitioners are presented in table 4. The assessment of the feasibility of a product in the form of a PCM to reduce aggressive behavior was carried out by experts who were lecturers as well as researchers

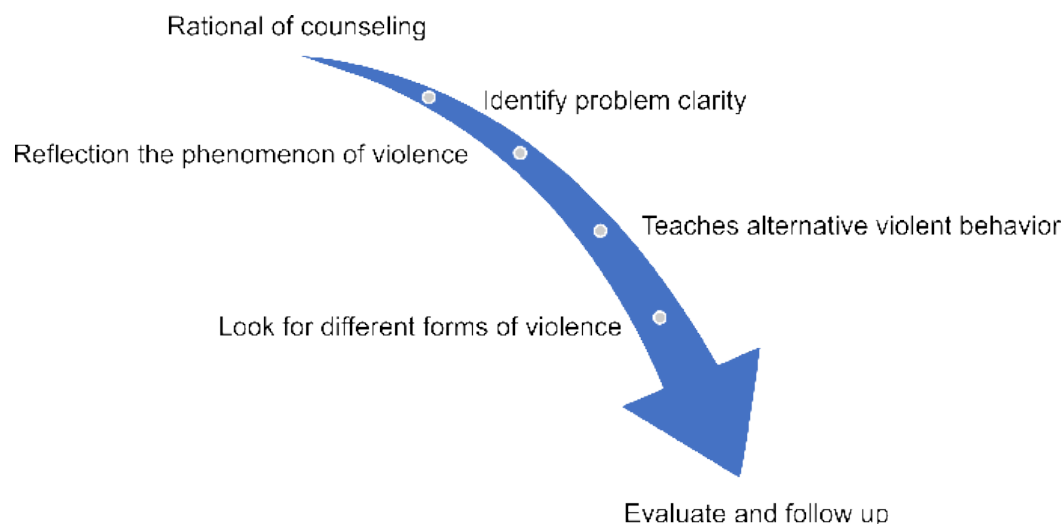


Figure 1. Stages of PCM

Table 4. Results of Expert and Practitioner's Assessment to Feasibility of PCM

No	Aspects	Mean of Score
1	General description of PCM	3.1
2	The accuracy of PCM to reduce aggressive behavior	3
3	The benefits of PCM for a counselor to reduce students' aggressive behavior	3.6
	Mean	3.2

Table 5. Analysis of Cohens's Kappa Coefficient

		Symmetric Measures			
		Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.
Measure of Agreement	Kappa	0.856	0.052	10.127	0.000
N of Valid Cases		137			

a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.

who studied innovation of guidance and counseling. The product was also assessed by practitioners who worked as professional school counselors in vocational high schools. The average rating given by experts and practitioners to PCM to reduce aggressive behavior was 3.2. After being assessed by experts and practitioners, the feasibility of PCM to reduce aggressive behavior was identified by using the inter-rater reliability (IRR) of Cohen's Kappa coefficient on the agreement of the assessment undertaken by these experts and practitioners. The results of the analysis using SPSS software are presented in Table 5.

Based on table 5, it is known that the IRR, the Cohen's Kappa coefficient shows the inter-rater reliability of $K = 0.856$. These coefficients are included in the strong category. The value of Cohen's Kappa coefficient means that there was a strong agreement between experts and practitioners about the feasibility of the product being developed. Asymp Std. Errors indicate standardized measurement errors, which means that the small magnitude of this coefficient indicates the more reliable measurement results were made. The significance value of 0.000 was smaller than the significance level used by 5% ($0.000 < 0.05$), which means that there was a significant agreement between experts and practitioners at a significance level of 5% for the product being developed.

DISCUSSION

The first findings in this study indicated that the data on the level of aggressive behavior of vocational students in Yogyakarta was 5% of the students were in very high level of aggressive category; 26% of the students were in the high category; 40% of them were in the moderate category; 21% of them were in a low category, and 8% of them were in the very low category (Saputra & Handaka, 2018). The results of this study showed that aggressive behavior was still a problem that has not been alleviated to the maximum and could affect students' self-actualization in learning at school. One of the effects of aggressive behavior that arose among students was the poor climate of the students' school and the effect on students' achievement (Mehta et al., 2013; Milam et al., 2010; O'Malley et al., 2015; Wang et al., 2014).

This research was supported by other studies that identified the level of aggressive behavior of students in Yogyakarta, which concluded that 1% of students had very high aggressiveness; 13% of them had high aggressiveness, 37% of them had moderate aggressiveness, 43% of them had low aggressiveness, and 6% of them had very low aggressiveness (Alhadi et al., 2018). However, that study identified the level of aggressive behavior of junior high school students in Yogyakarta with a cluster random sampling technique, while this study investigated the level of aggressive behavior of vocational students in Yogyakarta with stratified random sampling technique.

Other research on the profile of students' aggressive behavior conducted based on aspects of physically hurting others, hurting others verbally, and damaging or destroying property showed that 35.32% of students physically hurt others, 41.30% of them verbally hurt others, and 30.42% of them destroyed or damaged goods (Hidayat, Yusri, & Ilyas, 2013). However, that study was limited to 94 class XI students of Public Senior High School 5 Padang, while in this study involved all students in Muhammadiyah Vocational High School of Yogyakarta with a total sample of 160 students taken by stratified random sampling technique.

The first research findings that described the data on the level of aggressive behavior of students in Muhammadiyah Vocational High School of Yogyakarta, became the basis for the development of a hypothetical PCM draft to reduce students' aggressive behavior. This product was developed with the roots of the peace education theory, which, in essence, seeks to create an essential peace, that is positive peace (Cremin & Bevington, 2017; Fitz-Gibbon, 2010; Shields & Rissler, 2016). Positive peace actually attempts to oppose the concept of negative peace by providing resistance to physical and psychological violence that leads to the emergence of aggressive behavior and conflict, and education of peace tries to rise to meet that challenge (Fitz-Gibbon, 2010).

PCM applied in counseling services had six main stages. The first stage was a rational PCM. At this stage, the counselor explained why aggressive behavior needs to be reduced, and one of his efforts was by using PCM. The second stage was exploring the root of the problem of violence. At this stage, the counselor seeks to explore the location and root of the problem of aggressive behavior by students. The third stage was the reflection of the phenomenon of violence. At this third stage, the counselor explored the forms of aggressive behavior based on the counselee's perspective. The fourth stage was to teach looking for alternatives to violent behavior. At this fourth stage, the counselor educated and provided examples of counsees to find alternatives to aggressive behavior. The fifth stage was looking for different forms of violence. At this fifth stage, the counselor facilitated the counselee to find a form of behavior which was different from what was usually done (behaving aggressively). The sixth stage was evaluation and follow-up. At this sixth stage, the counselor strived to identify the internalized values in the counselee and plans for further meetings (Saputra & Handaka, 2018a).

Furthermore, the third finding from this study showed that there was a strong agreement between experts and practitioners regarding the feasibility of the product being developed, namely PCM, which could be applied by school counselors to reduce students' aggressive behavior. The emergence of this product can be an opportunity for counselors to be more proactive in helping the counselee to reduced their aggressive behavior.

The findings of this study were supported by other studies which stated that sustainable peacebuilding through educational efforts could be used to promote anti-violence schools (Bickmore, 2011). That study used a qualitative approach that had a high subjectivity from researchers, while this study employed a quantitative approach with more objective results. In addition, the emphasis of Bickmore's (2011) research on peacebuilding was still limited to education efforts in general, not

yet conical in its implementation in counseling sessions. Peacebuilding, through counseling efforts, provided a great opportunity for counselors to directly intervene changes in students' behavior and not only at the cognitive level (mind).

Other research supporting this research reported that peace education programs could help students promote their empathy. That research was limited to the implementation of peace education in general in developing students' empathy. In addition, this research was limited to the development of students' empathy and had not yet led directly to real behavior, especially reducing aggressive behavior, although if empathy is traced based on previous studies, it is related to aggressive behavior (de Wied, Gispens-de Wied, & van Boxtel, 2010; Eisenberg, Eggum, & Di Giunta, 2010; Van der Graaff, Branje, De Wied, & Meeus, 2012). Based on these studies, the higher students' empathy level, the lower the aggressive behavior that arose. Conversely, the lower the students' empathy, the higher aggressive behavior that appeared in students.

Efforts to implement peace education through counseling settings (or what we call PCM) are not without obstacles. This condition is similar to a study in Kenya, which showed that the implementation of peace education had obstacles, including these efforts, which could not be done in all subjects and the emergence of proper coordination among school personnel (Mary, 2016). Such problems certainly also had the potential to arise in Indonesia in the implementation of PCM in schools. This condition certainly had a negative impact on the effectiveness of the implementation of peace education.

Research that developed PCM to decrease aggressive behavior had several limitations. First, this study used a research and development design that only reached the feasibility of testing a PCM tangible product to reduce aggressive behavior. This research has not yet reached the stage of testing the effectiveness of the product being developed, so the level of product effectiveness has not yet been identified empirically. The second limitation in this study was that the product produced was still restricted to the peace counseling model in general and was not linked to local wisdom at the place where the research took place. Local wisdom has a significant meaning in this peace counseling model, primarily to expedite the counseling process undertaken. The assumption, students will be able to easily accept certain information if the information has an element of cultural similarity with students.

CONCLUSION

Aggressive behavior is a problem that is still the responsibility of many parties. Various forms of aggressive behavior appear and have an impact on the emergence of perceptions of the school climate that are not conducive to students. This perception will be related to the level of students' academic achievement. One effort that needs to be done is that the counselor applies a form of counseling model to build a peace of mindset in students. The counseling model developed to develop this peace of mindset is called PCM. Based on the feasibility assessment, it can be concluded that there was a significant agreement between experts and practitioners that PCM is appropriate to be used in reducing aggressive behavior. This research recommends further research to test the effectiveness of PCM to reduce aggressive behavior and also try to integrate it with local wisdom.

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The Effect of Social Support on Single Mothers' Subjective Well-Being and Its Implication for Counseling

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Abstract: The present study aimed to discover the effect of social support on single mothers' subjective well-being. This study employed a correlational approach. One hundred fifty nine single-mothers in Bantul regency, Special Region of Yogyakarta, Indonesia were involved in this study, determined using quota sampling. The data were collected using social support and subjective well-being scales. Simple linear regression was used to analyze the data. The present study exhibited that social support significantly affects single mothers' subjective well-being. This study can be used as a reference proving that social support is much needed by a single-mother to obtain subjective well-being. Therefore, a service in the form of a psychoeducational group is required in the community to enhance social support on single-mother. It can also be in the form of psychoeducational group and counseling services for single-mother to enhance her subjective well-being.

Keywords: social support; subjective well-being; single mother

Abstrak: Penelitian ini bertujuan untuk mengetahui pengaruh dukungan sosial terhadap *subjective well-being* ibu tunggal. Penelitian ini menggunakan pendekatan korelasional. Subjek dalam penelitian ini adalah 159 ibu tunggal di Kabupaten Bantul, Daerah Istimewa Yogyakarta, Indonesia. Pemilihan subjek ditentukan menggunakan *quota sampling*. Data dikumpulkan dengan menggunakan skala dukungan sosial dan skala *subjective well-being*. Analisis data yang digunakan yaitu regresi linier sederhana. Penelitian ini menunjukkan bahwa dukungan sosial secara signifikan memengaruhi *subjective well-being* ibu tunggal. Studi ini dapat digunakan sebagai referensi yang membuktikan bahwa dukungan sosial sangat dibutuhkan oleh seorang ibu tunggal untuk mendapatkan *subjective well-being*. Oleh karena itu, layanan dalam bentuk kelompok psikoedukasi diperlukan di masyarakat untuk meningkatkan dukungan sosial pada ibu tunggal. Kelompok psikoedukasi dan layanan konseling, juga dapat digunakan untuk meningkatkan *subjective well-being* ibu tunggal.

Kata kunci: dukungan sosial; subjective well-being; ibu tunggal

INTRODUCTION

Happiness is everyone's goal, and everyone attempts to reach it. An individual is happy when they gain what they want, and is sad when they face obstacles or fails to gain what they want. This makes some individuals are discontented with their life. Happiness can be equivalent to subjective well-being (Diener & Chan, 2011; Diener & Seligman, 2002; Kaveeva, Ishkineeva, Ozerova, & Ahmetova, 2019; Neira, Lacalle-Calderon, Portela, & Perez-Trujillo, 2019). According to society, a good life is characterized by happiness, health, and long life (Diener & Chan, 2011). Subjective well-being refers to others' judgment on life satisfaction, evaluation of feelings, including the state of mind and emotion. An individual with a high level of subjective well-being can control their emotion and cope with various phenomena in their life, whereas those with a low level of subjective well-being view their life worthless,

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and they view the problems they face as heart-rending properly. Accordingly, an individual with a low subjective well-being often experiences negative emotion such as restlessness, depression (Rottenberg, Devendorf, Panaite, Disabato, & Kashdan, 2019; Wood & Joseph, 2010; Yüksel & Bahadir-Yilmaz, 2019), and anger (Haase, Seider, Shiota, & Levenson, 2012; Phillips, Henry, Hosie, & Milne, 2006; Weathersby, King, Fox, Loret, & Anderson, 2019).

Following the Indonesian Central Bureau of Statistics (Badan Pusat Statistik (BPS)), the growth of Indonesia's happiness index, based on marital status, is divided into four dimensions (BPS, 2017). The highest index emerged from an unmarried citizen (71.53%), and the lowest index emerged from the widowed and not remarried citizen (67.83%). For the affective dimension, the highest index comes from those who are married (69.05%), and the lowest index was found in divorced citizens (64.19%). For the life satisfaction dimension, the highest index was found in married citizens (71.38%), and the lowest ones emerged from a divorced citizen (68.14%). Regarding the dimension of life meaning, unmarried posed the highest index (74.93%) while the widowed citizen posed the lowest index (68.83%). This finding proves that divorced and widowed citizens possess a lower level of subjective well-being than unmarried and married citizens to do.

The increasing numbers of divorce result in more single-parent in countries around the world, including Indonesia. This phenomenon affects the vast role of a single parent in educating and raising a child. 12.34% of women are a widow, and 3.4% of men are widower, showing that there is more widow than widower (BPS, 2017). Indonesian Central Bureau of Statistics noted that 18.84% of Indonesian women choose not to become a single mother. Single mother refers to a woman left by her spouse due to divorce or lost her spouses and not remarried, who prefers to raise her child alone (Papalia, Olds, & Feldman, 2008). However, a single mother also wants to be like other families, i.e., having hope to reach life well-being and happiness. Such hope is challenging to realize, and often contains obstacles leading to failure. Problems inhibiting a single mother from reaching subjective well-being are diverse, such as social (Crosier, Butterworth, & Rodgers, 2007; Smoleva, 2017), economic (Crosier et al., 2007; Smoleva, 2017), psychological (Taylor, Larsen-Rife, Conger, Widaman, & Cutrona, 2010), and health factors (Scharte & Bolte, 2013).

For a single mother, social support is the primary need to enhance self-confidence in solving their life. Social support is one of the factors affecting one's subjective well-being. Lack of social support is a problem that often faced by a single mother. Lack of social support can be seen by the lack of interaction with society and family. The broad and satisfactory social relationship is usually found in a happy individual. Otherwise, an unhappy individual is found to have a dissatisfactory social relationship (Diener & Seligman, 2002). Individuals need a supportive, positive, and complementing relation to maintain their happiness.

Previous studies show that social support affects subjective well-being in older adults, students, people in general, and Chinese college students (Goudarz, Foroughan, Makarem, & Rashedi, 2015; L. Tian, Zhao, & Huebner, 2015; Q. Tian, 2016). Based on the background of the problem and review of previous studies, the present study intends to discover the effect of social support on single mothers' subjective well-being in Bantul Regency, Special Region of Yogyakarta. This study can be used as a reference proving that social support is much needed by a single mother to obtain subjective well-being. Therefore, a service in the form of a psychoeducational group is required in the community to enhance social support on single mother. It can also be in the form of psychoeducational group and counseling services for single mother to enhance her subjective well-being.

METHOD

This study employed correlational approach. Single mothers in Bantul regency were involved in this study, determined using quota sampling. The sample criteria in the study that has been carried out are women who have been single mothers for less than fifty years, have children at least one children, and willing to be the subjects in the study. The subjects were categorized based on educational level, occupation, time of being single mother, numbers of children, and monthly income. Following the data, the majority of the subjects are graduated from junior high school or equivalent, work as unskilled labor, having 1-2 children, being a single mother for 0–5 years on average, and having an average income of IDR 300.000 - IDR 500.000. The subject was selected according to Krejcie and Morgan Table (Krejcie

& Morgan, 1970). Out of population of 277 single mothers, 159 of them were selected to participate in this study. The data were collected using social support and subjective well-being scales. The social support scale consists of 19 items with a validity coefficient $> .3$ and an alpha coefficient of $.876$. The subjective well-being scale consists of 38 items with a validity coefficient $> .3$ and an alpha coefficient of $.863$. Simple linear regression analysis was used to analyze the data.

RESULTS

Before a simple linear regression analysis is performed, it is necessary to do a classic assumption test, which includes a normality test and a linearity test. The classic assumption test results can be seen in Table 1. (normality test) and Table 2. (linearity test). Based on Table 1, it can be seen that the value of sig. (p) social support $.219$ ($p > .05$) and subjective well-being $.777$ ($p > .05$). This means that social support and subjective well-being are normally distributed. Based on Table 2., it can be seen the calculated F value in the linearity test between social support - subjective well-being of $.929$ with sig. (p) in the amount of $.595$ ($p > .05$). The linearity test results can be interpreted that there is a linear relationship between social support variables and subjective well-being. The data meet the requirements in the classical assumption test, so that it can be further analyzed using simple linear regression.

The collected data were analyzed using simple linear regression, aiming at finding out the effect of social support on the subject's subjective well-being. Table 3. and Table 4. show the result of the regression analysis. Table 3. shows that at a 5% level of significance, the F count value is 172.157 , and the significance value of $.000$ ($< .05$). Based on the F value and significance value, it can be said that the variance of an independent variable can account for the dependent variable. Table 4 shows the DW value of 1.937 . This value is compared with the dL and dU values obtained from the Durbin-Watson table regarding the sample size of 159, independent variable 1, and a significance level of 5% to determine the existence of autocorrelation. Based on the Durbin-Watson table, the value of $dL=1.720$, and $dU=1.746$.

Table 1. Normality Test Results

No	Variable	Kolmogorov-Smirnov	p
1	Social Support	1.119	.164
2	Subjective Well-Being	.660	.777

Table 2. Linierity Test Results

Variable	F	p
Social Support - Subjective Well-Being	.929	.595

Table 3. Anova The Effect of Social Support on Single-Mother's Subjective Well-being

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	5362.821	1	5362.821	172.157	.000 ^b
	Residual	4890.663	157	31.151		
	Total	10253.484	158			

a. Dependent Variable: Y (Subjective Well-Being)

b. Predictors: (Constant), X (Social Support)

Table 4. Model Summary The Effect of Social Support on Single-Mother's Subjective Well-being

Model Summary ^b						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson	
1	.723 ^a	.523	.520	5.58128	1.937	

a. Predictors: (Constant), X (Social Support)

b. Dependent Variable: Y (Subjective Well-Being)

This means that the DW value of 1.937 is between the value of $dU=1.746$ and the value of $4-dU=2.254$ ($1.746 < 1.937 < 2.254$), so that it can be said that there is no autocorrelation in the regression model. Next, the coefficient of determination in Table 4 (R^2)= .523. It means that the independent variable can account for the dependent variable by 52.3%, while the rest is accounted for by other variables. Therefore, it can be said that social support contributes by 52.3% to the subject's subjective well-being.

DISCUSSION

The purpose of the study was to discover the effect of social support on single mothers' subjective well-being. Statistical analysis using simple linear regression indicated that social support significantly affects the subject's subjective well-being. The hypothesis testing shows that the significant hypothesis was accepted; in other words, social support significantly affects single mothers' subjective well-being in Jetis subdistrict, Bantul, Regency, Special Region of Yogyakarta, Indonesia. Social support contributes to the single mothers' subjective well-being by 52.3%, while the other 47.7% was affected by other factors.

High social support may affect single mothers' subjective well-being. Social support refers to comfort, attention, self-esteem, or help provided by an individual or a group for another individual (Sarafino & Smith, 2014). Social support as the provision of help, attention, and affection for an individual (Høybye et al., 2010), these are obtained from a warm social relation so that an individual may feel being loved and worth. Social support can be in the form of physical and emotional support. Social support can be provided by individuals such as family, child, husband, wife, close friend, neighbor, colleagues, and others.

This is in line with the result of the study stating that social support and acceptance significantly affect student's subjective well-being (Tian et al., 2015). A study found that social support positively affects Chinese college students' subjective well-being (Xi, Wang, & Jia, 2017). The result of the study conducted on older adults and old exhibits that social support holds a significant association with subjective well-being, meaning that high social support leads to better subjective well-being (Goudarz et al., 2015; Tian, 2016). Accordingly, social support is meaningful for a single mothers since it may enhance her subjective well-being and improve life hope.

Theoretically, social support is associated with subjective well-being due to various reasons. Social support may take a role as a supporter in coping with stress, contribute to the decrease of the adverse effect of psychological stress, and other stressful life phenomena (Pugliesi, 1989). A study found that family support stands the highest effect in determining stress level, and peer support highly contributes to affect psychological problem symptoms (Wang & Castañeda-Sound, 2008). Chao (2011) states that social support may help an individual in improving well-being since it is capable of reducing his/her stress level. Some related studies state that individuals with low social support are prone to unhealthy behavior like alcohol consumption, sleep disorder, and fatigue (Thorsteinsson & Brown, 2009).

Single mothers faces not only economic and health problems, but also social problems. In social life, a single mothers are often alienated due to the stigma attached to her. They are often considered a threat to other married women since they think that their husband may cheat her with a single mothers. Society does not trust single mothers to take a role in an organization. Mockery and insult subjected by single mothers make them isolated and find it challenging to develop themselves. These problems make single mothers unhappy, dissatisfied, and angry with their condition. Accordingly, they often blame themselves or others, feel restless, become pessimistic with their life, and sad.

The purpose of social support is to enhance well-being, existence, and provide help, support, assistance, and attention toward an individual (Tarigan, 2018). With social support, an individual knows that they are loved, cared, respected, and have the desired part of his environment. An individual is happy due to the support they gains from their family, friends, or community. Accordingly, it makes they feel more confident and meaningful. An individual becomes happy when they accepted by the community. Therefore, social support is pivotal for single mother so that they can live her life happily.

The present study also indicates that an individual's well-being is affected by other factors besides social support. Although an individual is in an unstable condition, when they can adequately adapt to the environment, it can make them feel better. An individual with good adaptive skills can cope with life events better, eventually, it makes them possess better subjective well-being.

Subjective well-being is crucial to be studied because positive value and mental health help individuals identify what is missing from individual life. For a single mothers, psychological stress may result in various negative emotions and thought. Psychological stress is associated with anger and stress (Diong et al., 2005). Further, psychological stress also holds a positive correlation with physiological disease. Therefore, psychological stress does not only affect one's psychological health but also their physiological health. An individual with a low level of subjective well-being tend to feel unhappy, dissatisfaction, have low self-esteem, and possess a higher level of depression (Flouri & Buchanan, 2003). One's subjective well-being tends to make him needs less self-evaluation, which significantly affects their happiness and life satisfaction (Wilkinson, 2004).

Subjective well-being is a crucial indicator in studying an individual's psychological condition. By studying a single mothers' subjective well-being, a counselor can help single mother to do self-evaluation, understand her characteristics, and do many things to obtain subjective well-being. The present study assists counselors by providing a depiction that subjective well-being is affected by social supports, among others. Counselors may establish a good relationship and provide social support in a single mothers' environment. Counselors may collaborate with any related parties to build a pleasant climate of social support for single mothers.

Counselors can form a psychoeducational group in society. The psychoeducational group focuses on skill development to prevent problems (DeLucia-Waack, 2006). Through a psychoeducational group, a counselor could attempts to improve and forms social support in the form of physical, mind, or emotional for single mothers. Counselors can build an understanding of the members of the psychoeducational group that single mothers need social support to obtain better subjective well-being and life standard. Counselors also could explain adverse effects when a single mothers do not obtain social support. Psychoeducational groups employ group-based educational and developmental strategies, particularly role-playing, problem-solving, decision making, and communication skills training (DeLucia-Waack, 2006).

A psychoeducational group can also consist of a group of single mothers. In this group, counselors make preventive and developmental attempts to maintain single mothers subjective well-being. Those attempts can be in the form of developing single mother's self-confidence, stress management skills, emotion management skills, interpersonal skills, and other attempts. This is in line with DeLucia-Waack (2006), who states that the psychoeducational group teaches specific skills and coping strategies to prevent problems. Such skills and strategies might include anger management, social skills, self-esteem, assertiveness, and making friends.

Besides, counselors can conduct counseling with single mothers as a curative attempt, either in individual or group settings. Counseling may help single mothers obtaining a new understanding of their life, leading to the achievement of subjective well-being. One of the types of counseling that suits for a single mother in reaching subjective well-being is family counseling. Family counseling refers to a process to encourage family growth, instill mental health, and excellent communication (Noor, 2014). Every family member holds the right to express their feeling regarding the problems they are facing. Therefore, single mothers who have lack family support need help from professional counselor to obtain subjective well-being. This professional help is in the form of family counseling, among others. Family counseling is effective in overcoming family problems compared to individual counseling.

CONCLUSION

The present study exhibited that social support significantly affects single mothers' subjective well-being. This study can be used as a reference proving that social support is much needed by a single mothers to obtain subjective well-being. Therefore, a service in the form of a psychoeducational group is required in the community to enhance social support on single mothers. It can also be in the form of counseling services to enhance single mothers' subjective well-being.

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Efficiency of Students' Needs Assessment Application Facilitated by Text Communication Media

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Abstract: Needs assessment is the main thing performed by school counselors as a basis for developing a guidance and counseling service program. In conducting needs assessment, problems that frequently occur are related to ratios, feasibility and practicality of instruments, as well as needs assessment procedures. One solution that can be used to overcome these problems is the use of application analysis needs of students based on text communication media. This research aims to determine the efficiency of students' needs analysis application based on text communication media on vocational high school students. The research method used was experiment with the one-group pretest-posttest design technique. The research population was 45 vocational high school counselors in Kediri city. The percentage of random sampling was 25% of the total population, so the number of subjects was 11 people. The research instrument was the Students' Needs Efficiency Assessment Questionnaire by the school counselor and interviews. The research data were analyzed in descriptively and comparative tests. Based on the analysis results, the needs assessment of text-based media communication is to improve the efficiency of students' assessment declared efficient.

Keywords: application; needs analysis; text communication; efficiency

Abstrak: *Assessment* kebutuhan merupakan hal pokok yang dilakukan konselor sekolah sebagai dasar dalam menyusun program layanan bimbingan dan konseling. Dalam pelaksanaan *assessment* kebutuhan, kerap terjadi masalah terkait rasio, kelayakan dan kepraktisan instrumen, maupun prosedur *assessment* kebutuhan. Salah satu solusi yang dapat digunakan untuk mengatasi masalah tersebut adalah penggunaan aplikasi analisis kebutuhan siswa berbasis media komunikasi teks. Penelitian ini bertujuan untuk mengetahui efisiensi aplikasi analisis kebutuhan siswa berbasis media komunikasi teks pada siswa sekolah menengah kejuruan. Metode penelitian yang digunakan adalah eksperimen dengan teknik *one-group pretest-posttest design*. Populasi penelitian adalah konselor sekolah menengah kejuruan se-kota Kediri yang berjumlah 45 orang. Persentase pengambilan sampel secara acak sebesar 25% dari total populasi, sehingga jumlah subjek sebesar 11 orang. Instrumen penelitian menggunakan Kuisiometer Efisiensi Assessment Kebutuhan Siswa oleh konselor sekolah dan wawancara. Data penelitian dianalisis secara deskriptif dan uji beda. Berdasarkan hasil analisis, *assessment* kebutuhan berbasis media komunikasi teks untuk meningkatkan efisiensi *assessment* siswa dinyatakan efisien.

Kata kunci: aplikasi; analisis kebutuhan; komunikasi teks; efisiensi

INTRODUCTION

Assessment is an evaluation method to better comprehend individual characteristics, the environment, and other matters (Hays, 2014). By conducting a needs assessment first, we can develop an effective program (Cohen & Angeles, 2006). Likewise, in the preparation of a guidance and counseling service program, school counselors need to conduct an assessment to be able to make an effective program (Gysbers & Henderson, 2012). In the implementation of guidance and counseling, assessment of students' needs is an integral component in the development and implementation of guidance and

counseling programs at schools (Thompson et al., 2003). The needs assessment can also be used by school counselors to meet the students' needs according to their developmental tasks and guide them towards optimal and mature development (Yusuf, 2009).

Needs assessment is not an easy and rapid activity to do. Facts on the ground show that students who are the responsibility of a school counselor exceed the ideal ratio (Hanggara et al., 2018). In addition, another problem in conducting the assessment is the instrument limitations (Thompson et al., 2003). The limitations are in the form of the appropriateness of the instruments owned, understanding, and knowledge related to the use of the instrument and its administration skills. In administering and analyzing instruments, constraints are frequently encountered due to time, thought, energy, and cost. This makes school counselors tend to conduct needs assessment carelessly or even missed. Some school counselors at vocational high schools in Kediri city complain about the needs assessment process. They consider that the needs assessment process is a saturating activity. Needs assessment process consuming a lot of time, thought, and energy because the number of school counselors and students is imbalanced. The imbalance is feared to make the analysis results of students' data to be inaccurate and do not reflect students' real condition, which can lead to errors in the selection of guidance and counseling service strategies.

The imbalanced ratios may also reduce the analysis accuracy conducted by school counselors. In order to minimize inconsistencies in assessment caused by the counselor's subjectivity, it needs adequate resources (Sebok & MacMillan, 2014), and other solutions. Another solution offered is the use of technologies that can make procedures and analyzes to be consistent and objective. One of these technologies is the application assessment of students' needs facilitated by text communication media.

At the beginning of its development, applications that were tested for effectiveness were developed focusing on using Short Message Service (SMS). Based on the acceptance test results, the application is in the excellent category (Hanggara et al., 2018), the use of simple text communication media has a minor but important role by catalyzing communication lines (Jones et al., 2009). Then, in the development process, it gets many suggestions to suit the development and communication trends by using WhatsApp, Google form, and Facebook messenger. Researchers continue to revise according to various suggestions so that the value of this application is increasingly sophisticated and feasible to use. The next development process is testing the effectiveness of applications in limited groups to get further feedback. In the effectiveness test, it will be obtained various information related to the effectiveness of the application and information that is certainly useful for further improvements before it is widely used.

Based on the urgency written in the previous paragraph, the objectives of this research are: (1) determining the efficiency of assessment implementation on vocational students without using text-based needs analysis applications; (2) determining the efficiency of assessment implementation on vocational students using text-based needs analysis applications; (3) determining the level of effectiveness of text-based students' needs analysis applications in improving the efficiency of assessment implementation on vocational students.

METHOD

The research method used was experiment. The independent variable was students' needs assessment application facilitated by text communication media while the dependent variable was the efficiency of students' needs assessment implementation conducted by the school counselor. Specifically, the experimental technique used in this research was the one-group pretest-posttest design. This design was part of the pre-experimental group. There were three steps in implementing this design, namely: (1) conducting a pretest to measure the dependent variable; (2) applying treatment; and (3) provide a posttest to re-measure the dependent variable. The success of the treatment was determined by comparing the results of the pretest and posttest (Borg & Gall, 1983; Darmadi, 2011).

One-group pretest-posttest design was used, because generally the system at schools or certain institutions does not allow any other different treatment for the research subjects, the omission of this control group is not a serious thing that can threaten internal validity (Borg & Gall, 1983). This can be minimized by controlling extraneous variables that can interfere with internal validity, such as history, maturity, testing, instrumentation, statistical regression, differential selection, mortality, and selection-maturation interactions (Borg & Gall, 1983; Darmadi, 2011; Sukmadinata, 2012).

In this research, several methods used to control extraneous variables were by arranging similar but not the same pretest and posttest instruments. The instrument was developed from the same indicator but the statements between the pretest and posttest questionnaires were made differently. This was intended to minimize the threat of extraneous validity for the instrumentation section. Then, the researcher examined that less efficiency in conducting the assessment of students' needs was a phenomenon experienced by open research subjects because researchers' subjectivity. It was important to select treatment/ intervention really needed by the research subject.

The research subject was school counselors who were incorporated into the Association of Vocational High School Counselor (MGBK). The sampling technique used was simple random sampling with a percentage of 25% of the total population. The population was 45 vocational high school counselor in Kediri city, so the number of subjects was 11 people.

The instrument used was the Efficiency Assessment Questionnaire for Students' Needs by the Counselor and interview guidelines. The questionnaire was compiled based on indicators formulated from expert opinions, namely: selecting, administering, scoring, and reporting assessment results (Hays, 2014; Watson & Flamez, 2014; Whiston, 2012). The validation process of the 21 items questionnaire was performed through an expert test involving two competent Guidance and Counseling lecturers. Then, it was tabulated and analyzed using the specified inter-rater agreement method (Gregory, 2011). Expert tests were conducted to obtain validation of the product being developed. The validity used in this research and development was content validity. Content validity measurement was performed to measure whether the elements in the instrument were relevant to the research variables. The three criteria used in the expert test index were unfavorable/ inadequate in the range of 0.00–0.33, quite good/ quite decent in the range of 0.34–0.66, and good/ decent in the range of 0.67–1.00. The appraisers were two competent Guidance and Counseling lecturers. Based on the test results, it was obtained expert test index by 1. The results of this calculation were included in the first criteria in the range of values from 0.67–1.00. Thus, according to the assessment of the Guidance and Counseling lecturers, the instrument was declared as good/ worthy of acceptance/ suitable to use. This questionnaire was used to explore the efficiency of students' needs assessment data by school counselors before and after using the tested application. Qualitative data obtained from interview subjects were used to complement the research results.

In this research, calculations were performed using Paired Samples Test (parametric statistics); if the data were normal and homogeneous, if the data were abnormal and not homogeneous, then the Wilcoxon Sign Rank Test was used (non-parametric statistics). The decision-making provisions in the hypothesis test were if the significance was less than 0.05, then the null hypothesis was rejected, whereas if the significance score was more than 0.05, then the null hypothesis was accepted. Qualitative data would be described and it would be concluded from the description, to provide a clear picture of the aspects being assessed.

RESULTS

The results of the pretest and posttest are presented in Table 1. Based on Table 1, it is known that before the intervention, five subjects had an understanding categorized as low criteria (L), five subjects had an understanding categorized as high criteria (H), and one subject was categorized as very high (VH). After an intervention in the form of providing materials and practices using Text Communication Media Based Needs Analysis Application, from the data obtained, the assessment efficiency of students' needs increased. Seven subjects obtained high criteria (H), and four subjects obtained very high criteria (VH). Then, the prerequisite test including normality test and homogeneity test to determine the hypothesis test, was performed using parametric or nonparametric statistics.

Normality test results show a significance score of 0.504, and it be seen that the data are normally distributed because the significance score is higher than 0.05. Homogeneity test results show a score of 0.871, which means homogeneous data because the significance score is greater than 0.05. Because the data is normally distributed and homogeneous, the hypothesis test uses parametric paired sample test statistics. The calculation results using the paired sample test are presented in Table 2, which shows that the significance score of the paired samples test is 0.000. Based on the magnitude of the score, it can be

Table 1. Recapitulation of Pretest and Posttest Results

No.	Name	Pretest Score	Criteria	Posttest Score	Criteria
1	LEP	38	L	53	H
2	NAK	42	L	48	H
3	FM	42	L	47	H
4	VT	38	L	50	H
5	MAR	51	H	59	VH
6	JNW	43	H	56	VH
7	DIW	46	H	51	H
8	ENH	54	VH	58	VH
9	FFA	48	H	48	H
10	MRI	39	L	49	H
11	BST	49	H	57	VH

Table 2. Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Posttest - Pretest	7.818	4.423	1.334	4.847	10.790	5.862	10	.000

seen that the hypothesis is rejected and the alternative hypothesis is accepted because the significance score of 0.000 is smaller than 0.05. Then, the use of text communication media-based needs analysis applications to improve the efficiency of students' assessment can be stated as efficient.

DISCUSSION

Research results show that text communication media can be combined with computer programs (Graham et al., 2012; Olaleye et al., 2013). In line with this research, Ms. Excel can be combined with text communication media. It is concisely performed with DAST (Display, Answer, Send and Transfer). In the display stage, the counselor displays the answer format and the problem/instrument needs to be worked on. School counselors can package assessment instruments in the form of statements or questions that must be answered by students in the form of Ms. PowerPoint, so it is more efficient (paperless).

Then, the students answer according to the specified answer format. After finishing to answer and all items are confirmed, they send it to the counselor via text communication media. The choice of text communication media types, namely: SMS, WhatsApp, Facebook Messenger, and Google Form, depends on the counselor and student agreement and the availability of the media used. Then, it ends with transferring the students' answers to this application by the counselor. It can be automatically analyzed without having to count manually. By this application, the counselors do not need to input so many students one by one data that can lead to psychological saturation in the needs assessment process.

The novelty element of the application of students' needs assessment facilitated by this text communication media is the application used by school counselors to facilitate the process of vocational students' needs assessment, especially to administer and analyze students' data. This application was developed by creating logical formulas in the Ms. Excel by the researchers. Software like Ms. Excel offers a concrete way to explore abstract concepts from mathematical calculations (Chaamwe & Shumba, 2016). Everyone can create their own formulas by manipulating and combining built-in formulas to suit the analytical procedure and the objectives that want to be achieved.

Computerization in counseling and guidance services has grown in recent years (Sumarwiyah & Zamroni, 2017). Therefore, this application is used to facilitate the use of computerization in guidance and counseling services. Text communication-based media assessment application has the advantage

that the data of students' needs transferred to the application will be automatically analyzed with the output in the form of statistical presentations, charts, and profile scales related to students' needs both in terms of personal and group. Referring to the analysis results, school counselors can provide follow-up by choosing appropriate guidance and counseling service strategies.

Referring to the results of expert tests in previous research of Hanggara et al., (2018), text communication-based media assessment application is appropriate to be used as an instrument for assessing students' needs. With some improvements and developments, this application is tested for effectiveness. Based on this research results, it can be seen that the use of students needs assessment application facilitated by text communication media to improve the efficiency of students' assessment can be said to be effective. Based on interview data with the research subjects after using the application, it is obtained information that using the application can speed up the tabulation process. The results of automated needs analysis can be seen. It can also shorten the length of students' needs series assessment processes. The use of various kinds of text communication media (SMS, WhatsApp, Google Form, and Facebook Messenger) is an interesting innovation.

From the four types of text communication media, the research subjects are very interested in WhatsApp and Google Form. They are interested in WhatsApp because it is the most often used. Interest in Google Form is related to the novelty of this type of media when it is used in the needs assessment process. The weakness of this application is that if some numbers/ items that have not been selected, it is difficult to detect so it must be re-checked from the beginning. The solution offered for further product improvement is to isolate the tenth of the tabulated data in the excel analysis sheet.

The benefits of this application in improving the efficiency of needs assessment implementation can also be seen from the sincerity of the research subjects in following the instructions and practices. In conducting research, the research subjects show high enthusiasm. The research subjects' enthusiasm is one indicator that changes in the pretest and posttest scores, which are the results of the research conducted. The research subjects' enthusiasm is also one of the research results because the topic examined is important in the guidance and counseling service activities, which is about assessing students' needs that must be met by school counselors. Needs assessment is important because it determines the quality of the guidance and counseling program implementation (Anni, 2012). The guidance and counseling program will be effective if it is based on real needs and objective conditions of student development (Kurniawan, 2015). With the importance of a topic such as assessment and analysis of students' needs, it tends to be followed with enthusiasm.

The research subjects' sincerity is also due to the use of information technology that can ease the task of school counselors in conducting needs assessment. The utilization of information technology is an important factor in guidance and counseling services (Triyono & Febriani, 2018). This is also supported by research showing that increasing the technological competency and information of school counselors can make the administration of guidance and counseling to be more time saving, especially in the analysis of assessment results (Cahyawulan et al., 2019).

Generation Z uses information and communication technology with high intensity (Bakti & Safitri, 2017). Under these circumstances, educational media suitable for Generation Z is technology media, including in the needs assessment activities. Information technology is used as a means to obtain, process, store, and also disseminate information in guidance and counseling services (Setiawan, 2016). By utilizing a needs assessment, regarding the application that uses technology and accommodates existing information and communication to these students, this needs analysis application becomes more efficient.

Students' needs analysis application can be used paperlessly. Besides being efficient and economical, this application also educates to be more environmentally friendly. The use of cellphones as answer sheets and power points or e-book formats as question sheets makes the implementation of needs assessment as paperless and environmentally friendly guidance and counseling service.

The assessment implementation using this application seeks to accommodate the various stages of guiding and counseling assessment implementation, as mentioned by Hays, (2014); Watson & Flamez, (2014); and Whiston, (2012) namely: selecting administering, scoring, reporting assessment result. The clear stages and flow of the needs assessment using this application make the assessment to be more effective and scientifically responsible.

The needs analysis application of vocational students was developed by creating a logical formula in the Ms. Excel program. This program is noted for its toughness in data analysis and processing, as well as displaying results quickly. Ms. Excel can indeed display data visually and develop results reports to demonstrate accountability in the implementation of counseling services (Brott, 2006). Therefore, the application development of Ms. Excel makes the data analysis and display to be more practical and efficient. Its ability to analyze data automatically in accordance with the combined logical formula makes the analysis of students' needs to be more effective and efficient.

CONCLUSION

Text communication media-based needs analysis application utilization to improve students' assessment efficiency can be stated as efficient. In order to simplify the process of assessing the students' needs, school counselors can utilize text communication media-based needs analysis application. Because based on the results of this research using the application, the implementation of students' needs assessment can be made more efficient.

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