

Clinical Supervision Instrument Development for Junior High School Teacher Based on Android

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Abstrak

The instruments currently used are still paper and pencil based. This development research aims to produce a clinical supervision instrument for android and junior high school teachers are valid and reliable. Data collection was done by interview and observation. Content validity was obtained through 4 expert judgments, analyzed using Aiken's V formula. The construct validity was analyzed by Exploratory Factor Analysis (EFA) and Intraclass Correlation Coefficient (ICC), and reliability with Alpha Cronbach with the help of IBM SPSS 24.0 software. The results showed that the validity value of all instruments in the preparation stage until the closing stage obtained a score > 0.5. The result of field test shows that there are some statement items that are in valid criteria with value of Factor Factor > 0, 5. Aspects with valid statement items include Preparation stages with 5 statements and Alpha Cronbach values obtained at 0.640, Learning Activity stages with 23 statements and Alpha Cronbach values obtained by 0.962, and Closing stages with 4 statements and Alpha Cronbach values obtained at 0.680. Based on the results of the study, it was found that supervisors and teachers were very appreciative with the instrument of android based clinical supervision and the supervisor felt easier to conduct clinical supervision activities to the subject teachers. The benefits of this research are supervisors can use the instrument in carrying out clinical supervision with practical, easy and valid while for teachers can be used as a reference in preparing learning activities.

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INTRODUCTION

Quality education will produce the next generation of quality nations. One effort to improve the quality of human resources is through the process of learning in school (Jasmani & Mustofa, 2016, p.15). Teachers, principals and supervisors are the three pillars in one unity that will determine the quality of education.

The success of education cannot be separated from the role of the principal as a supervisor in the field of education that seeks to find educational problems and always fix the weaknesses that occur. One dimension of the principal according to Permendiknas number 13 of 2007 is the dimension of supervision, is supervising the work done by educational personnel in step increasing professionalism of teachers. As a leader and supervisor, the principal has authority and responsibility in the development and fostering of education, relating to teaching and learning and the curriculum with all its implementation (Tatang, 2016, p.90). This reinforces the results Ndapaloka Veronika (2016) that stated that the Leadership Principal da n a significant positive effect on the construct of teacher's achievement with a contribution of 60% which is included in the high category. This suggests that the principal leadership variable has a positive and significant influence on the motivation of teacher's achievement.

Professionalism of teachers can be developed by doing proper supervision, planned and the right system so as to create a harmonious atmosphere. Basically, supervision is an integral part of the entire educational administration process aimed primarily at developing the effectiveness of the performance of school personnel related to the main tasks of education. Supervision is an important factor as an effort to improve the quality of education through activities undertaken by educational supervisors in this case the education supervisor and principal in the formal education unit.

Clinical supervision is continuous through the pre-observation stage, learning observation, and post- observation (Daryanto & Rachmawati,

2015, p 246). According to Lukman (2016) Clinical Supervision is a professional guidance of principals to teachers who want to improve their skills or competence. Therefore, its implementation must always be familiarized in every school institution. Therefore, the implementation must always be familiarized in every school institution either initiative coming from the teacher or programmed directly by the principal. Likewise, the theory conveyed by Ngaba (2017) that clinical supervision is a supervision technique performed by the supervisor (school) to provide professional assistance provided based on the needs of teachers concerned in overcoming the problems faced in the learning process through guidance intensive systematically organized for the purpose of improving teaching skills and improving the professionalism of teachers.

Based on preliminary study conducted at SMP in Kecamatan Kota Waikabubak, West Sumba Regency the Principal of SMP in Waikabubak City District comprised of SMP Negeri 5, 2 and 1 BC Private SMP P SATAP (Data Dapodik 2017) has conducted clinical supervision activities, but not maximal yet. Based on interviews with teachers at SMP Negeri 5 Waikabubak and teachers of SMP Negeri 1 Waikabubak said that there are fears from teachers who will supervise by supervisor because there is still a feeling that the teacher is not fully able to manage the learning activities well. According to the results of interviews with principal of SMP Negeri 4 Waikabubak stated that clinical supervision i used instrument is still based on paper and pencil (*paper and pencil*). The assessment indicator is not maximized. It is certainly very long time in conducting a study of the results of clinical supervision activities conducted so that the results have not been maximized. The school as a supervisor can not accurately analyze the results of the clinical supervision to find a way out if there are problems found in the implementation of clinical supervision activities. This is supported by research results Rahmayanti (2014) which states that the lack of time owned by the principal to

perform effectively associated affairs of the principal outside the school's internal affairs.

One solution to solve the problem of clinical supervision instrument, the researcher made a design in conducting the clinical supervision activity with the supervision indicator assessed in doing the clinical supervision and the researcher also planning an instrument of android based clinical supervision, not using paper media as the supervision sheet making it easier to fill in data and minimize errors in entering data into the instrument used. With the android-based clinical supervision instrument will assist the supervisor to conduct the clinical supervision activities systematically because the instrument used in the form of application so that the stages of supervision will run smoothly. This is supported by the results of research conducted by Ahmadi Farid (2010), which states that students and teachers need to do the update process science primarily concerned with the use of information technology.

METHODS

The development of clinical supervision instruments for android-based teachers through the steps of development of the instrument proposed by Mardapi (2016, p.132), which were originally ten steps which were then modified into seven (7) steps : 1) compiling the instrument specification; 2) review and validate the contents of the instrument; 3) conducting trial 1; 4) analyze the instruments; 5) improve instruments; 6) conducting trials 2 and 7) interpreting the results of the instrument. Modification is done because there are several stages / procedures are made into one entity into one particular stage as the stage determines the scale of the instrument and determine the scoring system has become a stage that is the stages determine the specification of the instrument. In addition, the stage of carrying out measurements has become one of the stages of conducting trials.

Research and development is done in seven junior high schools in the District Kota

Waikabubak ie SMP Negeri 1 Waikabubak, Junior High School 2 Waikabubak, SMP Negeri 3 Waikabubak, SMP Negeri 4 Waikabubak, SMP Negeri 5 Waikabubak, junior Christian Waikabubak and Catholic Junior High Waikabubak with a sample size 44 people. Sampling is done when the learning activity is in progress. This research becomes important as a study in the process of product development, efforts to assist the development of clinical supervision instruments for SMP learner eye teachers. The developed instrument is tested for validity (content and construct), test legibility, reliability, resulting in a usable product.

RESULTS AND DISCUSSION

The shape of this instrument is to produce an end product in the form of a clinical supervision instrument for junior high school teachers based on Android teacher and instrument use manual. Instruments that have been declared valid and reliable then included in an application that had previously been designed by researchers in the form of android based applications. Instruments that have been designed in the form of applications also get input from users related to the content of the application of clinical supervision instruments so that researchers then make small revisions to the application of the instrument so that it is easier in its use.

Based on expert validation from 30 grains of clinical supervision instruments for junior high school teachers show that all aspects of the study have Aiken coefficient (> 0.30) (see Table 1), it means that the initial instrument meets the desired validity number and can be used in field product trials.

Table1. Values of Expert Instrument Results

| Item Number | Aiken V | Criteria |
|-------------|---------|----------|
| 1 | 1,00 | Valid |
| 2 | 1,00 | Valid |
| 3 | 1,00 | Valid |
| 4 | 1,00 | Valid |
| 5 | 1,00 | Valid |
| 6 | 0,88 | Valid |
| 7 | 1,00 | Valid |
| 8 | 1,00 | Valid |
| 9 | 1,00 | Valid |
| 10 | 1,00 | Valid |
| 11 | 1,00 | Valid |
| 12 | 1,00 | Valid |
| 13 | 0,88 | Valid |
| 14 | 0,88 | Valid |
| 15 | 1,00 | Valid |
| 16 | 1,00 | Valid |
| 17 | 1,00 | Valid |
| 18 | 0,75 | Valid |
| 19 | 0,88 | Valid |
| 20 | 0,88 | Valid |
| 21 | 0,88 | Valid |
| 22 | 1,00 | Valid |
| 23 | 1,00 | Valid |
| 24 | 1,00 | Valid |
| 25 | 0,75 | Valid |
| 26 | 0,75 | Valid |
| 27 | 0,50 | Valid |
| 28 | 0,88 | Valid |
| 29 | 1,00 | Valid |
| 30 | 1,00 | Valid |

Based on the result of the instrument development done several steps, then resulted in a clinical supervision instrument for the valid junior high school teacher. Based on the study of experts, the 30 items of the clinical supervision instrument each value > 0.3 , means that the items in the instrument are able to represent or reflect the entire content or material that is tested or that must be mastered so that the developed instrument is relevant and can be used in field trials. This is in accordance with the criteria which is expressed by Azwar (2014, p.34) that if the validity coefficient $\geq 0,3$ means the grain can be said to be valid (otherwise) if the validity

coefficient ≤ 0.3 then the item is declared inadequate (invalid).

The comparison of results obtained by researchers with previous research conducted by Guntoro (2016, p.125) is to develop supervision-based supervision model e-supervision web-based used by utilizing the development of information and communication technology. The development is done to answer the problems of the needs of teachers and supervisors in the implementation of academic supervision. Previous research by Rugaiyah (2016) focuses on developing models of information-based and technology-based clinical supervision using video recording. Mathisen's research (2016) states that the use of tablets as a means of observation and supervision of teachers in the educational environment. The supervisor group conducted 14 practicum and focused how the use of tablets can affect the quality of supervision and influence on teaching, observation and supervision. As long as the supervision process, group members have used tablets to create and share text, pictures, and video recordings.

The research undertaken by Ugwuegbulam, Ph, & Ibrahim (2013) examines the comparison between old schools and schools that apply the use of ICT in supervising counselor training in Nigeria. The results of this research is the use of ICT is very helpful in conducting training to counselors in Nigeria, supervisors can assist the implementation of activities through video recording and continued with the analysis activities conducted by supervisors on the practice of counselor.

The results of construct validity for clinical supervision instruments for android-based junior teachers use the Exploratory Factor Analysis (EFA). The valid data is based on the explanatory factor analysis procedure, if the data qualifies the Keizer-Meyer-Olkin Measure of Sampling Adequacy (KMO MSA) > 0.5 and at Chi-Square the significance value < 0.05 then the data is feasible and can be continued to be tested validity. Based on field data of large-scale trials obtained value of KMO > 0.5 is 0.821 and Chi-

Square value of sig 0.000. The results of the test can be seen in Table 2.

Table 2. KMO Results Preparation Stage

| Stages and Item Statement | KMO | Bartlett's Test of Sphericity | Df | P |
|-----------------------------|------|-------------------------------|-----|-------|
| Preparation | .662 | 39.904 | 10 | 0.000 |
| Activities Learning Closing | .692 | 1400.449 | 253 | 0.000 |
| | .677 | 28.561 | 6 | 0.000 |

Based on the above results in accordance with the existing criteria that if the value of MSA greater than 0,5 then the grain is sufficient for further analysis, if there is an MSA value of the starting items less than 0.5 should be issued one by one from the analysis. If the KMO value is between 0.5 to 1 and the significance value of *Bartlett's Test Of Sphericity* is less than the significance level (α) used, it can be interpreted that the exact factor analysis is used (Bilson, 2005, p.123).

Table 3. Construct Validity Test Results

| Stages and Item Statement | Loadin g Factor | Alpha Cronbac h |
|---|-----------------|-----------------|
| Preparation | | |
| Book Curriculum (Standard Eligibility subjects) | .520 | .640 |
| Annual Program and Semester Program | .642 | |
| Syllabus and Assessment | .642 | |
| Scenario Learning | .712 | |
| Book Assessment load all bills that have been implemented , includes aspect cognitive , psychomotoric and affective | .802 | |
| Activities Learning | | |
| Readiness tools and instructional media | .757 | |
| Apperception and motivation | .743 | |
| Write topic learning | .807 | |
| Delivering Competence | .711 | |

| | | |
|---|------|------|
| Basic | | |
| Setting up teaching materials | .659 | |
| Mastery material | .744 | |
| Management class | .814 | |
| Methods/approaches vary | .521 | |
| Use tools/media learning | .829 | |
| The role of the teacher as facilitator/guidance to students | .693 | .962 |
| Technique asking | .774 | |
| Use Indonesian Good and correct | .632 | |
| Dig information from various source | .736 | |
| Process data information | .816 | |
| Solve problem/perform research | .733 | |
| Communicate lisa/written (speech/presentation and make up) | .749 | |
| Submitting ideas/questions creative/weighted | .710 | |
| Connect material learning with mind pekerti/teknologi/ kehidupan everyday/environment | .813 | |
| Take decision/pull conclusion | .852 | |
| Presence students | .539 | |
| Bring book Relevant lessons | .785 | |
| Book note neat Achievement | .691 | |
| competence basic and or indicator | .848 | |
| Closing | | |
| Implementation learning right time | .619 | |
| Give strengthening to material learning | .792 | .680 |

Give task for meeting .742
next
Close activities learning .711

CONCLUSSION

From the results of the factor analysis conducted on clinical supervision instrument some point statement on the criteria that are valid with the Loading Factor value > 0, 5. Aspects or dimensions with valid statement items include Preparation stages with 5 statements (items 1, 2, 3, 4 and 5) and the Cronbach Alpha values obtained by 0, 640, Learning Activity stages with 23 statements (points 6-28) and the Cronbach Alpha values obtained by 0, 962, and the Cover stage with 4 statements (29, 30, 31 and 32) and the Cronbach Alpha values obtained at 0, 680. Therefore, with this result it can be said that the grains of the instrument forming aspect/dimension of clinical supervision is a good point and can be used as instrument of clinical supervision and instrument reliability coefficient is in high and very high category so that instrument can be regarded as instrument consistent or reliable.

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