

## Authentic Assessment Development Skill Aspect in Class IV SD

Dwi Priyanti<sup>1\*</sup> Deny Setiawan<sup>2\*</sup> Asih Menanti<sup>2</sup>

1. Magister Pendidikan Dasar, Universitas Negeri Medan, Jalan Willem Iskandar Pasar V Medan 20221, Provinsi Sumatera Utara, Indonesia

2. Lecturer Pendidikan Dasar, Universitas Negeri Medan, Jalan Willem Iskandar Pasar V Medan 20221, Provinsi Sumatera Utara, Indonesia

### Abstract

This study aims to find an assessment instrument that can be used in carrying out the authentic assessment of skills aspects in the fourth grade of elementary school. This research is included in the type of research development (research & development) is a research process used to produce the product in the form of an authentic assessment of aspects of skills in the fourth grade of elementary school. The subjects in this study were students and teachers of fourth grade at SD Percobaan Medan City, and validation experts as many as 5 people who have criteria as: (a) PPKn material experts, (b) IPS material experts, (c) Indonesian material experts D) Indonesian experts, and (e) design experts. As the object of research is the development of an authentic assessment instrument of student skills aspects. The result of the initial analysis of the fourth grade teacher book and the theme book of 7 Cita-Citaku Element with the subtheme of Me and Cita-Citaku, My Ideal Pursuit, and Gain Achieved the Idea, that there is no detailed instrument of skill assessment on each subtheme of learning. Based on the acquisition of validation scores from each expert the average score score on the study material PPKn 92.85% with the category is very valid, the average score score in the study of the material of social studies 78.57% with valid category, the average score on the score 94,64% of Indonesian subjects with highly valid category, average score on linguistic study 93,75% with very valid category, and average score score in 85.93% design study with very valid category. The results of trial 1 and trial 2 acquired an average grade of 94.53% with very valid categories. Based on an authentic assessment instrument questionnaire the aspects of the 2013 curriculum skills provided to teachers have no difficulty using the instrument, so the authentic assessment instrument of the skill aspect is valid and usable.

**Keywords:** Authentic Assessment, Aspect, Instrument Appraisal.

### 1. Background

The process of teaching and learning in the classroom begins with preparing the facilities and infrastructure, one of which is to plan the learning activities, one of the aspects that must exist in the planning is the goal or competence as the target to be achieved. Based on the plans and objectives that have been established then carried out learning activities. At the time of the learning activities took place appeared a few questions that arise, what goals to be achieved, how far students can receive the subject matter, and have effective lessons received by students. The question can be answered after the assessment.

Changes in standard content elements in the 2013 curriculum make teachers who have been using traditional judgments to change how they are judged to be authentic judgments based on curriculum demands. Authentic assessment of the 2013 curriculum is as stated Mulyasa (2013: 66) from the focus on knowledge through output assessment (outcome) to be based on capability through the assessment process, portfolio and assessment of the output as a whole and comprehensive.

The concept concept of the Curriculum 2013 is an authentic assessment based on the assessment of the Minister of Education and Culture of the Republic of Indonesia Number 104 of 2014 on the assessment of learning outcomes by educators in primary and secondary education, Authentic assessment is a form of assessment that requires learners to display attitudes, using knowledge and Skills gained from learning in performing tasks in real situations. When applying authentic assessments to find out the learners' learning outcomes and achievements, teachers apply criteria relating to knowledge construction, observation and try activities, and the value of out-of-school achievement.

Retnawati (2016:43) conclude:

Based on this research results and the results of other researchers' researches, the keywords of the teachers' difficulties are the lack of teachers' comprehensive understanding of Curriculum 2013, including the implementation of assessment, such as planning, conducting and reporting the result of students' achievements.

The results show that teachers have difficulty understanding the Curriculum 2013. The difficulties encountered are applying such assessments as planning, implementing and reporting student learning outcomes. The same thing is also explained by Setyowati (2013: 320) that the assessment of Curriculum 2013 which implemented is quite complicated because it consists of three aspects that are assessed the assessment of attitudes, knowledge and skills. Of these three aspects are further elaborated in several indicators. The teacher finds difficulties with the number of indicators that need to be assessed, especially on aspects of attitude

assessment. Teachers assess attitude assessment through observation sheets in the classroom while in the classroom teachers should also focus on the teaching process, which means the teacher's work so increased to be an observer for learners. Another perception that the teacher expressed was about the limitations of the age that is not young again and the lack of ability in the field of technology.

The convenience gained by teachers to carry out authentic assessments is that of the 2013 curriculum teacher book as a guide for teachers to carry out authentic assessments, there are several assessment formats for assessment of aspects of knowledge, attitudes and skills. In line with the teacher book for teachers, there are also student books to assist students in learning activities.

Student books contain learning materials and student learning activities that can develop students' creativity in learning activities. Student books invite students to learn more learning information from the various learning activities that have been designed in the student book. Learning objectives have been achieved if teachers can use the teacher books and student books appropriately as a guide in conducting learning and assessment activities.

In accordance with the assessment guideline issued by the Ministry of Education and Culture in 2013, skills assessment can be done through portfolio assessment, performance appraisal, and project appraisal. Not all basic competencies can be measured by performance appraisals, project appraisals, or portfolios, the determination of assessment techniques is based on the skills competence characteristics to be measured.

Although authentic assessment is appropriate for assessing students' abilities especially on the skills aspect, but not all teachers understand the concept and implementation of authentic assessment. How can an authentic assessment be used for practical purposes in a learning activity if the teacher does not understand the concept. In accordance with the results of observations and initial interviews conducted by researchers on Monday, December 16, 2016, it is known that 20 of the 24 classroom teachers at SDN Experimental Medan stated that teachers carry out an authentic assessment of aspects of skills based on a limited understanding of the guidelines contained in Teacher books, skills assessment is still influenced by assessment on the cognitive aspect. Added also by the teacher that in the manual, teachers do not know in detail the assessment of skills so that it encourages teachers to assess skills similar to doing a cognitive assessment.

A lack of teacher's understanding of authentic assessment of skill aspects is not supported by examples of adequate appraisal instruments in the teacher's book as a teacher's guide for assessment. Based on preliminary analysis conducted by the researcher found in the book of class 4 teacher of theme 7 aspiration there are some skill competence where instrument of assessment generally only done by using checklist. In some assessments it is not equipped with an assessment rubric, for example on subtema 1 in Lesson 1 for basic competencies of PPKn (3.1), learning 4 Social Science competencies (3.7) and learning 5 basic Indonesian competence (3.2). Another constraint faced by teachers is the lack of in-depth material in the student book makes it difficult for teachers to assess authentic aspects of skills.

The format of the assessment contained in the teacher manual has not explained the skills aspect firmly and clearly, the limited understanding of the assessment makes the teacher mistaken in making an assessment that impact on learning outcomes that are not in accordance with the ability of students, it takes understanding and strategy in the assessment of skills aspect to be able Implemented effectively and teachers focus on managing learning. Therefore, to make it easier for teachers to understand the authentic assessment that suits the curriculum requirements of 2013 researchers feel the need to develop an authentic assessment instrument that can help teachers to assess especially on skill aspect, the researcher uses 4 D models according to Thiagarajan ( In Trianto, 2011: 189). The product developed in the form of an authentic assessment instrument guidance of the skills aspect in class IV theme 7 My ideals complement the assessment instruments in the 2013 curriculum teacher books.

Assessment done conventionally by teacher if done continuously will not give knowledge to teacher, that result of learning does not represent ability owned by student. Authentic assessment provides an opportunity for teachers to know the level of development in students. Authentic assessment can be used to improve the learning process in accordance with educational assessment standards. The researcher will conduct research and development entitled "Development of Authentic Assessment of Aspects of Skills in Class IV SDN Trial Medan"

## **2. Theoretical Framework**

### **2.1. Authentic Assessment**

Ridwan (2016: 23) describes authentic assessment as a type of assessment that leads learners to demonstrate the skills and competencies needed to overcome problems and situations encountered in the real world. In the meantime, Asih and Sani (2014: 48) assert that authentic assessment is a comprehensive assessment to assess from inputs, processes, and learning outputs, which include the areas of attitude, knowledge, and skills.

Ruby (2015;62) explain the authentic assessments used developed the communication skills of the learners like the use of interviews, debate, panel discussions and the like and the development of scientific skills was

found to be limited.

Kemendikbud in Teacher Training Material Curriculum Implementation 2013 SD Grade 4 (2013: 61) explains that the authentic term is a synonym of original, real, valid, or reliable. Kunandar (2014: 35) reveals that authentic assessment is an activity of assessing students who emphasize what should be assessed in real terms, both process and outcome with various assessment instruments tailored to the demands of existing competencies.

## 2.2. Authentic Assessment Characteristics

Kusmijati (2014: 56) explains that one of the elements of change in the 2013 curriculum is authentic. Authentic assessment is used on learning by scientific approach (scientific) Rule's in Keyser (2008:5) explain literature review of examples of authentic assessment in higher education concluded that there are four characteristics of authentic activities:

- 1) involve real-world problems that mimic the work of professionals;
- 2) include open-ended inquiry, thinking skills, and metacognition;
- 3) engage students in discourse and social learning; and
- 4) empower students through choice to direct their own learning.

Kirschner (2006:10) Newmann and Associates identified three key criteria characterising successful authentic and intellectual performance in most fields of work: construction of knowledge, disciplined inquiry, and value beyond school.

Based on some of the above opinions, the characteristics of an authentic assessment centered on the learner, integrated with learning, real, sustainable, and individual. The experiences experienced by students form the characters in learners such as the willingness to take risks, creative, develop high-order thinking and creative thinking, responsibility for task and sense of belonging. Learning activities provide an overview of the problems that occur in real life.

## 2.3. The Benefits of Authentic Assessment

Ridwan (2016: 28) describes related to authentic assessment in learning, some of the impacts are as follows:

1. Authentic assessment involves learners in learning, including using media or equipment preferred by learners.
2. Authentic assessment involves learners in synthesizing information and using critical thinking skills.
3. Authentic assessment involves learners learning while doing assessment.
4. Authentic judgments know how learners think, and not just know what they remember.
5. Authentic assessment helps learners to understand their academic abilities and helps teachers know how best to teach them.

Added Wiggins (1993:229) Authentic assessment provides many benefits for promoting deeper, more engaged learning:

a. It involves "ill-structured", unpredictable challenges and roles, and therefore helps students rehearse for the complex ambiguities of the "game" of working and professional life. b. It respects that there can be more than one answer.

a. It responds to the demands of external stakeholders (e.g. industry, the professions) for universities to offer more relevant experiences that enhance graduate employability, including the development of authentic graduate capabilities. c. It requires students to construct unique responses rather than to select responses from pre-existing options and focuses student activity on complex higher order thinking skills. d. It requires students to be aware of the criteria that will be evaluated, encouraging them to reflect on and assess their own work and effort. e. It is holistic and integrated, using work samples collected over time (sometimes to create a portfolio). f. It is useful for providing opportunities for creativity and personal reasoning and enables the development of specific graduate attributes. g. Its "test validity" depends upon whether the test simulates real-world "tests" of ability.

Based on the above opinion it can conclude the benefits of authentic assessment basically to know the progress of student learning since the beginning of learning activities that serve as a bait for students and teachers to achieve learning objectives so that the achievement of the effectiveness of learning

## 2.4. Skills

According to Suparno (200: 27). Skill is a science that is outwardly within human beings and needs to be studied in depth by developing the skills they possess

According to Bloom (1979) psychomotor domains associated with learning achievement achievement through manipulation skills that involve muscle and physical strength. Singer (1972) adds that psychomotor-related subjects are more movement-oriented subjects and emphasize physical reactions and hand skills. The skill itself shows a person's level of expertise in a particular task or set of tasks. Psychomotor domains include physical movement and coordination, motor skills and physical abilities. These skills can be honed if they do it often. The development can be measured angle of speed, accuracy, distance, way / technique of implementation. There are seven categories of psychomotor domains ranging from simple to complex levels, as follows:

## 2.5. Skills Assessment Techniques

According to Ridwan (2016: 233) skills assessment techniques are as follows:

### 1. The practice test

Practice tests are conducted to assess students' competencies in specific skills. The practice test can use observation sheets or use standardized equipment (Ridwan 2014: 229).

#### A. Characteristics of practice tests

Some points to consider in carrying out the practice test are as follows:

1. How to construct and administer practice tests should be the same for learners.
2. The test taker needs to be given a clear explanation of what should be prepared, including the time of the test.
3. Information submitted to learners of test participants should include what components will be assessed and how the assessment criteria. These criteria are used in rating scale, checklist, or anecdotal notes to be used by the assessment team.
4. Assessments tested can be done with the availability of room, equipment, cost, and time.

Here is an explanation of the checklist and rating scale instruments.

#### A. Checklist (check list)

Ahmadi and Amri (2014: 301) stating that checklists are a list of subjects and aspects to be observed, the teacher only checks on every aspect in accordance with the observations made. Added by Komalasari (2013: 154) states that in order to observe student performance, teachers can use checklists or rating scores. Here is an example of a checklist by Ridwan (2016: 238).

#### B. Rating Scale

Komalasari (2013: 155) explains that performance appraisals that use the scoring scale allow teachers to assign an intermediate value to the mastery of certain competencies. The rating scale is stretched from imperfect to perfect, eg: 4 = very good, 3 = good, 2 = enough, 1 = less. Furthermore, Ahmadi and Amri (2014: 301) state that the assessment scale instrument provides a solution to the shortcomings of checklists that are only able to record the existence of certain phenomena and can not measure the intensity of the phenomenon.

Based on some opinions above, it can be concluded that portfolio assessment is an assessment activity on the works of students at a certain period. Portfolio shows the progress of student learning progress through his work, for example, poetry, drawings, discussion results, essay, and so forth.

### 2. Project Assessment

Ridwan (2014: 235) describes Project learning is a learning task that must be completed by students in a certain time. The task can be a research, posters, artwork, and so on. Project appraisal is done related to the process and the resulting product. Added Komalasari (2013: 163) that project appraisal is an assessment activity against a task that must be completed within a certain time. Furthermore, Kurniawan (2014: 236) discloses that project appraisal is an assessment of the tasks that the students do in a given period of time.

Based on the opinions of the experts above, it can be stated that the assessment of the project is an assessment of the tasks completed by students individually or in groups

In the assessment of the project, there are at least three things to consider, namely as follows:

- 2.1. The ability of learners in choosing the topic, finding information and managing the time of project work or data collection, and report writing.
- 2.2. The relevance or relevance of the project to the subject, taking into account the teaching and skills in the lesson.
- 2.3. The authenticity of the project, which should be the work of the learners, taking into consideration the teacher's contribution in the form of guidance and support for the project's work.

### 3. Portofolio

According to Ridwan (2016: 291) portfolio is a collection of work results of learners for a particular theme that is completed within a certain time in an effort to achieve the goal of learning. Portfolio assessment is an authentic assessment that describes what a learner can do after understanding how. Furthermore, Kunandar (2014: 293) explains that portfolio assessment is an ongoing assessment based on a collection of information that indicates the development of a student's ability over a period of time.

The same opinion is also explained by Komalasari (2013: 165) which states that portfolio assessment is a continuous assessment based on a collection of information that indicates the development of students' skills within a certain period.

In addition to the need for assessment of learning outcomes and skills, the portfolio can be utilized to:

1. Knowing the progress experienced by learners,
2. Knowing the weaknesses of the learning process,
3. Give awards for the work performance of learners,
4. Improving the effectiveness of the learning process,
5. Accelerate the growth of positive self-concept in learners,
6. Improving the ability of learners to perform self-reflection, and

## 7. Helping learners in formulating learning objectives.

Based on some opinions above, it can be concluded that portfolio assessment is an assessment activity on the works of students at a certain period. Portfolio shows the progress of student learning progress through his work, for example, poetry, drawings, discussion results, essay, and so forth. Here's an example of a portfolio assessment section by Ridwan (2016: 315):

### 2.6. Development Research

Hasyim (2016: 58) Research and development (R & D) in education is a process that is used to develop and validate research products. In the form of a new product, or refining an existing product, which can be scientifically justified.

Based on the expert opinion above, it can be concluded that the development research is a process used to develop education and learning to produce a product and validate the learning product.

#### 2.6.1. Research Development Steps

The educational problem-solving steps raised by Plom in Hasyim (2016: 61) are comprised of preliminary investigation phase, design phase (design), realization / construction phase, test phase, evaluation and revision (Test, evaluation, and revision), and implementation (implementation). These 4 steps can be described as follows:

##### 1. Initial Investigation Phase (preliminary investigation)

One important element in the design process is to conduct needs analysis (need assessment) to find the sub-components of learning problematic. Problems are gained by finding gaps with what is happening significantly in learning with desired learning situations, hence the need to investigate the cause of the gaps. Researchers of course require information and data so as to recommend the components of the cause. The term preliminary investigation is also called needs analysis or problem analysis. Plom and Wolde (1997: 8) states "in this investigation important elements are the essential elements of the investigation is to collect and analyze information, Define a problem and find the potential developed from one component of the learning system that has not been optimal. At this stage evaluation evaluation can be used with objective oriented evaluation model for classroom learning procedure, supported by qualitative and quantitative data collection techniques.

##### 2. Phase design (Design)

At this stage the researcher will design the learning and learning device components that will be developed which include the design of the grille, the purpose, and the method to be developed. Then the results of the design that has been obtained can validated existing validation techniques such as with data triangulation techniques that design is validated by experts (expert) and peers. The result of this designation is called the first prototype.

##### 3. Realization Phase / Construction (Realization / Construction)

Design is a work plan or blue print to be realized in order to obtain solutions in the phase of realization / construction. In this phase has created a model of learning design with one of the learning system components that are prioritized to be improved, for example the preparation of Learning Implementation Plan (RPP) as product design and draft module design results.

##### 4. Test phase, evaluation and revision (test, evaluation, and revision)

RPP and draft modules are evaluated by science experts and revised. Based on the evaluation results found which are satisfactory and which ones still need to be developed.

##### 5. Implementation Phase (implementation)

After the evaluation is evaluated and the product is obtained, the product amaka can be implemented. In a limited trial, followed by a revision, and a field test followed by a final revision. Once completed the product has been considered operational to be developed.

## 3. Research Methods

### 3.1. Location and Time of Study

This research was conducted in the fourth grade of SD Negeri Experiment Medan which is located at JalanSeiPetani No.59, Medan City. Researchers chose the school because it has implemented the 2013 curriculum and in the school has never done research development of an authentic assessment of skills aspects. This research will be conducted in the even semester of the academic year 2016/2017.

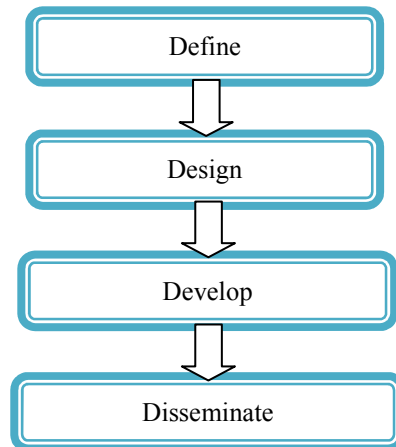
### 3.2. Subjects and Research Objects

The subjects of this study are the fourth graders of SDN Experiment in Medan City, and the product validator experts are 4 people who have criteria 1. PPKn, IPS, and Bahasa Indonesia experts, 2.Linguists, 3.Research design experts. The object of research in this research is to analyze teacher book and student book in accordance with Curriculum 2013 skill aspect by using authentic assessment instrument in class IV SDN Trial in Medan City theme 7 aspiration.



### 3.3. Research Development Model

The model of development to be planned in this study follows the path of Sivasailam Thiagarajan, Dorothy S. Semmel and Melvyn I Semmel (1974). According to Thiagarajan, and Semmel (in Trianto, 2011: 189), the 4-D models consist of four stages: (1) degineation stage, (2) design stage, (3) development stage (develop) and (4) dissemination stage (disseminate). The following main threads of Thiagarajan development model, Semmel&Semmel.



Gambar 3.1: Thiagarajan development model flow

## 4. Research result

### 4.1. Instrument Validation Results

Based on validation result of instrument performed by validator viewed the validation results of the instrument performed by the validator, Acquisition of the average score is categorized into the category is very valid and can be used. Furthermore, the validation results of this expert team are referred to the prevalence criteria set out in chapter III. Then referring to these criteria can be concluded that the developed assessment instrument meets the criteria is very valid and can be used.

### 4.2. Trial Results

Experimental test of the instrument developed by the researcher and validated by the expert needs to be tested to determine validation and whether the pruduk can be used or not. Before field trials researchers discuss with teachers. At the time of the discussion the researcher explained to the teacher how to use the instrument which begins by understanding the indicators developed in accordance with the learning activities and the type of assessment. This is done will the teacher difficulty in assessing the students with the developed instruments. Based on themes and sub themes of learning activities, basic competencies and indicators of learning activities are then grouped by type of assessment, ie assessment of practice tests, project appraisals, and portfolio assessment.

Based on the validation results conducted by the expert note that the average value on the validation of PPKn material review in the category is very valid, validation of IPS material review with valid category, validation of Indonesian material review with very valid category, validation of Language with very valid category, Validation of category design experts is very valid. The overall results of the validation of the authentic assessment instruments of skill aspects with categories are very valid. Based on a trial with very valid category. Based on the results obtained, the assessment instrument is valid and can be used as a guide in carrying out the authentic assessment of skills aspects of the 2013 curriculum.

## References

- Adelina Hasyim.(2016).*Metode Penelitian dan Pengembangan Di Sekolah*.Yogyakarta:Media Akademi.
- Agus Suprinjono.(2009). *Cooperative Learning*.Surabaya:Pustaka Belajar.
- Arikunto, Suharsimi.(2006). *Dasar-dasar Evaluasi Pendidikan*. Jakarta: Bum Aksara
- Bloom, Benyamin S.1986.*Taxonomy of Education Objective*.Newyork:Logman
- Borg, W R & Gall, M D. 2003.Educational Research: an Introduction(7. ed).New York: Logman Inc.
- Daryanto dan Herry Sudjendro. (2014). *Wacana Bagi Guru SD: Siap Menyongsong Kurikulum 2013*. Yogyakarta: Gava Media.
- Fathurrohman.(2015).*Model-model Pembelajaran Inovatif*.Jogjakarta:Ar-Ruzz Media
- Gulikers, J. T. M., Bastiaens, Th. J., & Kirschner, P. A. (2006). *Authentic assessment, student and teacher perceptions: the practical value of the five dimensional-framework*.*Journal of Vocational Education and*

- Training*, 58, 337-357
- Haris Herdiansyah. (2013). *Wawancara, Observasi, dan Focus Group: Sebagai Instrumen Penggalan Data Kualitatif*. Jakarta: PT RajaGrafindo Remaja.
- Hergenhann.B.R dan Olson.2008.*Theories of Learning*.Jakarta: Kencana Media Persada
- Imas Kurinasih dan Berlin Sani. (2014). *Implementasi Kurikulum 2013: Konsep dan Penerapan*. Surabaya: Kata Pena.
- Iif Khoiru Ahmadi dan Sofan Amri. (2014). *Pengembangan dan Model Instrumen Penggalan Data Kualitatif*. Jakarta: PT RajaGrafindo Remaja.
- Ismet Basuki dan Hariyanto. (2014). *Asesmen Pembelajaran*. Bandung:PTRemaja Rosdakarya.
- Keyser, S. & Howell, S. (2008). *The State of Authentic Assessment*. Retrived from <http://files.eric.ed.gov/fulltext/ED503679.pdf>
- Kokom Komalasari. (2013). *Pembelajaran Kontekstual: Konsep dan Aplikasi*.Bandung: PT Refika Aditama.
- Kunandar. (2014). *Penilaian Autentik (Penilaian Hasil Belajar Peserta Didik Menyongsong Kurikulum 2013*. Yogyakarta: Gava Media.
- Melissa Citrawaty.(2016). *Pengembangan Penilaian Autentik Aspek Keterampilan Di Kelas IV SDN 028229 Kota Binjai*.Medan:Tesis UNIMED
- Mulyasa.(2013). *Pengembangan dan Implementasi Kurikulum 2013*. Jakarta: Rosda.
- Neneng Kusmijati.(2014).*Penerapan Penilaian Autentik Sebagai Upaya Memotivasi Belajar Peserta Didik*, ISBN 978-602-14930-3-8.Purwakarta.
- Nurgiyantoro,B.(2011).*Penilaian Otentik*.Yogyakarta:UGM Press
- Peraturan Menteri Pendidikan dan Kebudayaan Republik Indonesia No. 81 *Tentang Pedoman Umum Pembelajaran*.
- Peraturan Pemerintah No.32 tahun 2013 tentang *Standar Penilaian Nasional*.
- Permendikbud Nomor 104 tahun 2014 tentang *Penilaian Hasil Belajar* oleh Remaja Rosdakarya.
- Retnawati, H, Hadi, S., &Ariadie C.N., (2016). *Vocational High School Teachers' Difficulties in Implementing the Assessment in Curriculum 2013 in Yogyakarta Province of Indonesia*.*International Journal of Instruction*. 9(1), 33-48
- Ridwan Abdullah Sani.(2016).*Penilaian Autentik*.Jakarta:Bumi Aksara.
- .(2014). *Pembelajaran Sainifik Untuk Implementasi Kurikulum 2013*.Jakarta:Bumi Aksara.
- Ruby. (June 2015). *A Survey of Authentic Assessment in the Teaching of Social Sciences*. 2(6), pp. 61-62. Available: [www.ijessnet.com/wp-content/uploads/2015/08/6.pdf](http://www.ijessnet.com/wp-content/uploads/2015/08/6.pdf) [jan. 4,2016]
- Rusmono.(2012).*Strategipembelajaran Dengan Problem Based Learning itu perlu:Untuk meningkatkan Profesionalitas Guru*.Bogor:Ghalia Indonesia.
- Sukmadinata, dan Nana Saodih. 2009. *Metode Penelitian Pendidikan*. Bandung: PT. Remaja Rosdakarya.
- Sumaryatun, dkk. (2016). *Pengembangan Instrumen Penilaian Autentik Kurikulum 2013 Berbasis Literasi Sains Pada Materi Bioteknologi*. *Journal of Primary Education* 5 (1) (2016)
- Supardi.(2015). *Penilaian Autentik*.Jakarta.Raja Grafindo
- SherAzim.(2012).*authentic assessment: an instructional tool to enhance students learning*.*Pakistan*. Vol. 2, No. 3, May 2012.hal.6
- Thiagarajan, S. Semmel, D.S. Semmel, M. (1974).*Instructional Development for Training Teachers of Expectional Children*.A Sourse Book.Blomington: Indian.
- Trianto.2010. *Mendesain Model PembelajaranInovatif- Progesif*.Jakarta :Kencana.
- Wiggins, G. (1993). *Characteristics of Authentic Assessment*. Retrived from <http://link.springer.com/article/10.1007/BF02504676>