



Perception of Mathematics Teachers Against Implementation of Curriculum 2013

Ana Febrianti Siregar^{a*}, Edy Surya^b

^{a,b}*Mathematics Education Program Study of Postgraduate School, State University of Medan, Jl. Williem
Iskandar Pasar V, Medan 20221, Indonesia*

^a*Email: anafsiregar@gmail.com*

^b*Email: edy_surya71@yahoo.com*

Abstract

This study aims to determine the perception of mathematics teachers on the implementation of curriculum 2013. This research method is descriptive qualitative. This research was conducted in Prayatna Junior High School Medan. Data collection techniques used were interviews and observation. Data were analyzed using data reduction, exposure (data display) and conclusion. Triangulation of data used is theoretical triangulation. Research subject of three mathematics teachers. The results obtained by a teacher have not been trained to make RPP in accordance with the curriculum 2013, and two teachers have been trained and able to make RPP, so it can be concluded that the training of making RPP for math teachers in the school has not been evenly distributed. Mathematics teachers also do not use the learning media and props to the maximum, because of the observations found no visual aids or students produced work. Implementation of curriculum 2013 on learning mathematics has not been effective.

Keywords: perceptions of teachers; implementation; curriculum 2013.

1. Introduction

Teaching and learning activities conducted in the school certainly have a goal to be achieved. To achieve these objectives then the learning must be implemented in accordance with the standard of education process.

* Corresponding author.

The standard of educational process is the relevant national standard of education with the implementation of learning on one educational unit to achieve standard of graduate competence [1]. And to reach the standard the competence of the graduates, in essence the quality of education is influenced by several factors, among them the most decisive factor is the curriculum quality education. There are some curriculums ever applied to the education system in Indonesia, including: the curriculum 1968, the curriculum 1975, the curriculum 1984, the curriculum 1994, KBK, and KTSP [2]. Thus, it appears that the curriculum in Indonesia has undergone several changes. This change is done with the aim that education in Indonesia can be better adapted to modernization and progress of science and technology. From some curriculum changes now there is a re-curriculum transition from KTSP to curriculum 2013. Unit Level Curriculum (KTSP) or curriculum 2006 was a curriculum operational education organized by, and conducted in each educational unit in Indonesia. KTSP legally mandated by Act No. 20 of 2003 on National Education System and Government Regulation Republic of Indonesia Number 19 Year 2005 on National Education Standards. Preparation of the curriculum by the school started the academic year 2007/2008 with reference to the Content Standards (SI) and Graduates Competency Standards (SKL) for primary education, and secondary as issued by National Education Minister Regulation No. 22 respectively in 2006, and No. 23 In 2006, as well as KTSP Development Guide issued by the National Education Standards Agency (BSNP) [3]. In today's era of the KTSP is not applicable anymore and are now turning to curriculum 2013. The curriculum 2013 has been enjoined the government to be applied at every level of education in Indonesia, so it has a lot of training given to educators to be able to realize curriculum 2013 in learning in the classroom. Also has been issued teacher books and student books as a reference for educators in carrying out learning according to the curriculum. However, the transition of KTSP to the curriculum 2013 is not an easy matter, many issues that arise both from the community and the school, especially for teachers. Based on this, some teachers' perceptions related to the curriculum of 2013, especially mathematics teachers. In a large dictionary of Indonesian perception is defined as a response (recipient) directly from something or can also be interpreted with absorption, the process of a person knows some things through the five senses [4]. According to Jalaluddin Rakhmat [5], perception is the experience of objects, events or relationships obtained by summing up information and interpreting messages. Perception is to give meaning to sensory stimulation. Understanding perceptions based on this view, perception can be understood as a person's experience of an object gained by concluding information and interpreting the message. Accordingly, according to Abdul Rahman Shaleh and Muhbib A. Wahab [6], perception is a process that combines and organizes our sensory data (sensing) to be developed in such a way that we can be aware of our surroundings, including being aware of ourselves. This understanding provides an understanding that the perception of a process gives meaning to an object that is around a person by combining and organizing the data obtained through sensing. One's perception of an object does not stand alone or just happens, but it is influenced by several factors, both internal and external [7]. Everyone has a different perception of the same object. According to Sarlito Wirawan Sarwono [7] there are six factors that can cause differences of perception, namely: (a) Attention, (b) Set, (c) Needs, (d) Value system, (e) Personality traits and, (f) Disorders Psychiatric. Until now there are still teachers who have negative perceptions about the curriculum 2013 so they tend to be reluctant to implement it. To minimize the negative perception that the curriculum 2013 has been socialized since 2013, based on the trip many schools that have implemented curriculum 2013 but not a few schools that have not applied it. Many teachers have not been informed because of the lack of comprehensive socialization on the application of this curriculum. This has

affected many teachers complaining about the difficulty of applying the curriculum 2013 that emphasizes authentic assessment and group learning with gender equality. In the learning assessment of curriculum 2013 using authentic assessment approach (*authentic assessment*) which assesses the readiness of learners, processes and learning outcomes in their entirety. The integration of these three components assessment will describe the capacity, style, and the acquisition of learners who are able to produce instructional impact (*instructional effect*) on aspects of knowledge and impact Bridesmaids (*nurturing effect*) on the aspect of attitude. Results authentic assessments used by teachers to plan improvement program (*remedial*) learning, enrichment (*enrichment*), or counseling. In addition, authentic assessment results are used as materials to improve the learning process in accordance with the Education Appraisal Standards [8]. In addition, the implementation learning of the curriculum 2013 is conducted in groups where the grouping is heterogeneous among others with the existence of gender equality. Implementation of a gender equality based curriculum allows all learners the opportunity to develop their potential without optimal discrimination on the basis of sex, Smith (Colin J. Marsh [9]) says; "... *not only do teachers provide a gendered experience for teachers.*" Thus, the implementation of a gender equality based curriculum enables learners to be able to adapt knowledge, skills and attitudes without discrimination on the basis of sex. The curriculum is said to be effective when the curriculum can be implemented and all learners are able to follow it without discrimination [10]. Furthermore, in the implementation of the curriculum 2013, teachers need to develop students' skills in digging and using information in learning. So that in the implementation, students are guided to complete the study, preparing for further study, entering the world of work, and lifelong learning in the community [11]. In order for these four noble tasks to be performed well, they need high awareness and motivation, skill, and literacy passion. The essence of literacy is the activity of reading-think-writing. In addition, experts also highlight the *thinking* in the context of reading and listening as in the phrase *reading and thinking activity* and *listening and thinking activity* [12]. Meanwhile, other activities that usually accompany the core activities of the literacy, such as observing, discussing, and presenting the results are an extension of the practice of literacy [13]. Reading-writing practice in this regard is more directed to reading-writing for studying or *reading and writing to learn* [14] or the *reading, writing, and critical thinking as tools for learning* ([15]; [16]). The ability to speak, think, and mastery of material substances needs to be integrated or synergized [17]. It is this student's ability to be developed in the planning and implementation of the curriculum 2013. In Law Number 20 Year 2003, the National Education System (UU Sisdiknas) has formulated strategic indicators that is developing the ability and forming the character and civilization of a dignified nation in order to educate the nation's life, aiming to develop the potential of learners to become human beings who believe and Fear Allah Almighty, be noble, healthy, knowledgeable, capable, creative, independent, and become a citizen of democratic and responsible. In fulfilling the needs of 21st century competence, UU Sisdiknas also provide clear direction that the purpose of education must be achieved one of them through the application of competency-based curriculum. Competence that covers three aspects, namely attitude, knowledge, and skills, so as to produce a complete Indonesian man. The curriculum 2013 demands a balance of attitudes, knowledge, and skills. An aspect of attitudes, knowledge, and skills to be achieved at each level is what is known as the Graduate Competency Standards (SKL). The competency standard of graduates is reduced to 4 (four) Core Competencies (KI). The Core Component consists of, attitudes are in KI-1 (attitude to God YME) and KI-2 (social attitude), knowledge of KI-3, and skill of KI-4 [18].

2. Limitations

To further direct this research, the researcher only discusses matters relating to perception of mathematics teachers against implementation of curriculum 2013. Teachers' perceptions include effective management of learning, implementation of the curriculum 2013 in class VII and VIII, service of individual differences, use of worksheets, authentic assessment, gender, and literacy across the curriculum.

3. Materials and Methods

The research method used in this research is qualitative description. Subjects in this study amounted to three mathematics teachers at Prayatna Junior High School Medan. Technique used to collect data in this research is interview and observation method. The interview conducted by the researcher is a structured interview in which the researcher has known exactly what information to be extracted from the respondent so that the question list has been made systematically. The technique used to analyze the data include the data reduction, exposure (*data display*) and conclusion. Triangulation of data used is theoretical triangulation. Gunawan [19] revealed that the theoretical triangulation has the meaning that the final results of qualitative research in the form of a formulation of the information (*thesis* statement) will be compared with the theoretical perspectives that are relevant to individual researchers avoid bias on the findings or the conclusions. The tools used by the researcher for interview are: (1) Mobile for recording voice, (2) Digital camera, (3) Draft interview and observation. In an interview with the teacher the emphasized aspect: (1) know the teacher's perception of the characteristics of the curriculum 2013 which includes: rational curriculum development, curriculum development principles, curriculum change elements, and curriculum structure; (2) to know teachers' perceptions of the curriculum 2013 implementation strategy that refers to the policies issued by the government and the strategies undertaken on the initiative of the school itself; (3) to know the teacher's perception on the implementation of curriculum 2013 in the class which includes: the implementation plan of learning and the implementation of learning. On observation of observed aspects of visual aids and students' work which is documented by the teacher. This research was conducted in Prayatna Junior High School Medan.

3.1 Procedures

Before the interview, the researcher first contacted the resource person, then the researcher came to the school and afterwards asked the time willingness directly to the resource person to be interviewed. Furthermore, after the interview activity is completed, the researcher performs the documentation activity by taking some photos to be included in the research report.

3.2 Research Question

The questions asked in this research interview are:

1. What is the positive of KTSP 2006 which is now being implemented for class IX?
2. Does your mathematics class effectively manage your learning? How to?
3. Curriculum 2013 has been enacted, reportedly socialization continues until 2016. Does the learning in

class VII and VIII have done learning in accordance with the curriculum 2013?

4. Each student in learning has different characteristics, especially in classroom learning. Have you served individual differences in mathematics learning?
5. Does mathematics teaching Mr / Mrs have used worksheets to help students learn? Are there high-level questions in the worksheet?
6. What kind of assessment do you / your mother do in learning mathematics? What about authentic assessment, have students ever rated their way of discussion or presentation or other activities?
7. Gender is one of the issues raised in learning through the implementation of the curriculum 2013. Have you ever applied the gender concepts in learning that balance between the roles of male students and female students in mathematics learning?
8. Literacy across the curriculum is a skill to dig up information and use it for learning purposes. Have you done the lesson by developing the students' ability to dig and use the information in the lesson?

4. Results

4.1 Description of Research Results

Based on the questions that have been submitted to resource persons consisting of three mathematics teachers, the following interviews are obtained:

Table 1: Results of interviews

No.	Question	The 1st teacher	The 2nd teacher	The 3rd teacher
1.	What is the positive of KTSP 2006 which is now being implemented for class IX?	KTSP 2006 for class IX that has been running it of course effective as well. It's just that the demands of the KTSP 2006 in the development of the material is different from the curriculum 2013. So, if the KTSP 2006 students development is generally based on individual temporary to the curriculum 2013 development generally for groups and development of KTSP 2006 material that has been running in this school.	KTSP 2006 is simpler than the curriculum 2013, shorter the material because the source is only based on the teacher. The positive thing is that KTSP is suitable for this school situation, while the curriculum 2013 is too high for students here.	Each curriculum is positive, the positive of KTSP 2006 being implemented for class IX is simpler whereas the curriculum 2013 material is higher, while the subject matter is the same, and it is not an obstacle in teaching it.
2.	Does your mathematics class effectively manage	Already implemented effectively, managing begins with the learning of the	Due to the condition of students who are not very conducive, and very	Yes, in the classroom has implemented the

your learning? How to?	curriculum 2013 for grades VII and VIII while KTSP 2006 for class IX is implemented in accordance with existing data on teachers based on curriculum 2013 and KTSP 2006.	backward so difficult to be able to manage learning effectively.	learning effectively. The way of implementation is dependent teacher/educator, if teachers/educators are effective in implementing learning then effective learning and classroom.
3. Curriculum 2013 has been enacted, reportedly socialization continues until 2016. Does the learning in class VII and VIII have done learning in accordance with the curriculum 2013?	The lessons for classes VII and VIII have been implemented in accordance with the curriculum 2013 and mathematics teachers also continue to follow the socialization of the curriculum 2013 in sub rayon.	I have not implemented the curriculum 2013 because children do not have a student book, so it is difficult to implement or realize the 2013 lesson.	Already, the learning in class VII and VIII has been learning in accordance with the curriculum 2013 and here has been using the curriculum 2013 book as well, but here the drawback is the rpp function to facilitate the learning process.
4. Each student in learning has different characteristics, especially in classroom learning. Have you served individual differences in mathematics learning?	Differences in the acceptance of materials for students are basically the same but for the less able to follow we must teach in a slow and patient way so that students can receive the subject matter.	One class that there are 40 students who have different characteristics, can not be sole dilayanin only in general, but for the lazy and a lot of his behavior I ordered to sit on the floor and told in front.	Yes, the teacher has done it, but the way is through the approach for students who are less in understanding learning.
5. Does mathematics teaching Mr / Mrs have used worksheets to help students learn? Are there high-level questions in the	For learning as a student assistant there is a worksheet adapted to the material and the level of difficulty than the material or questions are tailored to the existing	I do not use student worksheets, low level aja they can not answer let alone high, but occasionally I also hold low level questions.	No, mathematics learning does not use worksheets but mathematics learning is based on math package

- | | | | |
|---|--|---|---|
| worksheet? | material, there must be also a more difficult level of some of the questions presented. | Another variation I did was to find the name of the minister based on his alphabetical name. | books. And researchers do not use high-level questions. |
| 6. What kind of assessment do you / your mother do in learning mathematics? What about authentic assessment, have students ever rated their way of discussion or presentation or other activities? | Assessment for the curriculum 2013 is a lot, the assessment is not only in terms of the ability of students to follow the material but also in terms of behavior, honesty, cooperation, presence, appreciation between friends with friends, make friends in the sense of not disturbing and better, etc. so if you follow curriculum 2013 is a lot to be followed, but generally does not escape from the mastery of the subject matter. Assessment in accordance with the provisions was also discussed so not only the assessment of problem solving but also there are group tasks and group presentation results. | The assessment I do is adab and courtesy towards teachers of his studies, morals and daily discipline also with dress and duty. In my authentic judgments I always record the students who come forward and who answer. | The type of assessment conducted in the learning of mathematics is based on KKM, but not all students can achieve kkm, as for his solution is to hold the test again so that kkm can be achieved. Yes, the way they discuss or presentations or other activities are also assessed. |
| 7. Gender is one of the issues raised in learning through the implementation of the 2013 curriculum. Have you ever applied the gender concepts in learning that balance between the roles of male students and female students in mathematics learning? | Learning for the role of students is clearly more active than the concept of learning because in accordance with the provisions that the learning process of students should be more active then there are some in one class that divided by group but not separated between women and men in the sense of mixing one group there are women and there men So from the given material that is discussed so that the results are presented | I do not apply the different roles of women and men. | Yes, mathematics learning has applied gender concepts in learning that balances the roles of male students and female students in the discussion. |

	by each group.		
8. Literacy across the curriculum is a skill to dig up information and use it for learning purposes. Have you done the lesson by developing the students' ability to dig and use the information in the lesson.	Yes it is clear that the demands of this learning students are more active so that students should be able to develop what material is contained in the material so that he can develop material in everyday life.	Not every material I do is only certain material that is compatible.	Yes, researchers have implemented learning by developing students' skills in digging and using information in learning.

Based on the results of the above interviews shows that SMP Prayatna Medan mathematics teachers have a perception that KTSP is simpler when compared with the implementation of the curriculum 2013. Furthermore, there are two teachers that is the 1st and 3rd teachers that says they have effectively managed the lesson. While the 2nd teacher has not, on the grounds that the condition of students is very not conducive, and very backward so difficult to be able to manage learning effectively. In line with that, 1st and 2nd teachers respectively claimed to have done learning in accordance with the curriculum 2013 while the 2nd teacher has not. Then the 1st and 3rd teachers say that they have served individual differences in mathematics learning while the 2nd teacher did not apply them. Furthermore, according to the 1st teacher to help learning activities there are worksheets that are adapted to the material and the level of difficulty. While the 2nd and 3rd teachers did not use it. In the assessment, all three teachers have carried out authentic assessments and assessed how the students were in discussions or presentations or other activities. Furthermore, on gender differences 1st and 3rd teachers already apply the concept of gender while the 2nd teacher has not. With regard to cross-curriculum literacy, the 1st and 3rd teachers have implemented it while the 2nd teacher has not. Thus the implementation of the curriculum 2013 can not be said to be effective.

4.2 Findings of Research Results

In this research the researcher finds among others:

1. Teacher worksheets which, according to the researcher, also do not match the curriculum 2013 where there should be high level questions and so on.
2. Researchers did not find the work of students or the work of students either in the form of work or display in the classroom.

5. Discussion

The result of interviews that researchers have done is the math teacher at Prayatna Junior High School has

implemented the curriculum 2013 in teaching mathematics material but not as a whole, because according to the results of the interview there is a teacher has not received training to make RPP in accordance with the curriculum 2013, and two teachers have earned Training and able to make RPP, so it can be concluded that the training of making RPP for math teachers in the school is not evenly distributed. Mathematics teachers also do not use the learning media and props to the maximum, because of the observations found no visual aids or students produced work. Implementation of the curriculum 2013 on mathematics learning has not been effective. According to Muzamiroh [20] in curriculum 2013 teachers are required to understand the best possible objectives, content, organization, delivery system, and other curriculum components. So that the quality and quantity of teaching results given to achieve the desired target because of the success of the curriculum 2013 itself lies in the hands of teachers, as the implementer curriculum. With socialization conducted by the government through Candidate No. 81 A on the implementation of the curriculum 2013 is expected to get teachers knowledge and understanding of the curriculum 2013, so as to change the behavior and learning activities in the classroom. In other words, the government's socialization of the curriculum 2013 is critical to the success of teaching and learning activities in the classroom. The theory by Burns [21] clearly supports the discovery of the individual influenced by the situation as influenced by the situation. The curriculum is a teaching curriculum that provides maximum aids for both the teachers and the students. The curriculum tries to make mathematics more and more teaching skills [22]. Along with this Sobur [23] states in terms of the psychology of a person's behavior is a function and the way he looks. Therefore, to change a person's behavior starts from changing his perception. Curriculum reform perspectives in mathematics education articulated in many research papers and policy documents of different countries aim at deepening and increasing each learner's mathematical learning and achievement [24]. The results of this study are relevant to research conducted by Ratna Setiyani and his colleagues [25] which shows that teachers support the implementation of curriculum 2013 because students will be trained to be active, creative, critical thinking and equipped with learning concepts so that they can solve problems when they are in the workplace and society. Furthermore, in the study of Muhamad Ikhsan Sahal Guntur and his colleagues [26] shows the perception of high school math teachers in Kayuagung are on sufficient criteria.

6. Conclusions and Recommendations

6.1 Conclusions

Based on the results of interviews that have been done in Prayatna Junior High School shows that (1) KTSP is easier than curriculum 2013 because KTSP is basically simpler and lesser and easier material for teachers; (2) Implementation of learning by using instructional media when delivering lessons but learning is not yet fully effective; (3) The lessons learned in class VII and VIII have been learning in accordance with the curriculum 2013 through a scientific approach that observes, asks, associates, collects information, and communicates; (4) The attitude of teachers in serving individual differences in learning by providing various approaches, namely attention and motivation in students to be happy in learning mathematics; (5) Mathematics learning has used a useful worksheet to help students learn, and in the worksheet there are high, moderate and easy questions; (6) The type of appraisal that does in learning mathematics is through three domains, namely cognitive, affective, and psychomotor, and in learning discussion or presentation or other activities that are also in value; (7) The

concept of learning does not differentiate between men and women. This learning process is conducted through groups consisting of men and women; (8) Implementation of learning by developing students' ability in digging and using information in learning has been implemented through learning media that use to build the character of students in the knowledge they have, as for the source to dig information is the internet and books that support the learning process.

6.2 Recommendations

Based on these results, the recommendations can be submitted by researcher are there should be equitable training for teachers on making RPP according to the curriculum 2013, so that the implementation of the curriculum 2013 can run effectively. And there should be adequate facilities and effective and efficient learning media to support mathematics learning according to the curriculum 2013.

Acknowledgements

The authors acknowledge support from the State University of Medan. The authors thank for Mathematics Education Program Study of Postgraduate School for support.

References

- [1] Sanjaya, W. Strategi Pembelajaran Berorientasi Standar Proses Pendidikan. Jakarta: Kencana, 2006.
- [2] Putra, S.N.L. "Perjalanan Kurikulum di Indonesia". Internet:
<https://b3sm4rt.files.wordpress.com/2011/01/perjalanan-kurikulum-di-indonesia.pdf>, Jan. 2011 [May 4, 2017].
- [3] Mulyasa, E. Kurikulum Tingkat Satuan Pendidikan. Bandung. Remaja Rosdakarya, 2007.
- [4] Tim Penyusun Kamus Pusat Bahasa. Kamus Besar Bahasa Indonesia, Ed 3, Cet. 2. Jakarta: Balai Pustaka, 2002.
- [5] Rakhmat, J. Psikologi Komunikasi, Cet. 15. Bandung: PT Remaja Rosdakarya, 2000.
- [6] Shaleh, A. R., & Wahab, M. A. Psikologi Suatu Pengantar (dalam perspektif Islam), Cet. 1. Jakarta: Kencana, 2004.
- [7] Sarwono, S. W. Pengantar Umum Psikologi, Cet. 9. Jakarta: Bulan Bintang, 2003.
- [8] Kemendikbud. Permendikbud No. 22 Tahun 2016 Tentang Standar Proses Pendidikan Dasar dan Menengah. Jakarta: Badan Pengembangan Sumber Daya Manusia Pendidikan dan Kebudayaan dan Penjaminan Mutu Pendidikan Kementerian Pendidikan dan Kebudayaan, 2016.

- [9] Marsh, C. J. *Handbook for Beginning Teachers*. Sydney: Addison Wesley Longman Australia Pty Limited, 1996.
- [10] Ghufron, A. *Profil Tingkat Keinovasian Guru Dalam Implementasi KTSP*. Laporan Penelitian. Yogyakarta, FIP Universitas Negeri Yogyakarta, 2007.
- [11] Suyono. “Pembinaan Perilaku Berliterasi Berbasis Kegiatan Ilmiah: Pengembangan Program, Strategi, dan perangkat Pendukungnya untuk SMA”. Disertasi, PPs Universitas Negeri Malang, Malang, 2005.
- [12] Finn, P. J. *Helping Children Learn Language Art*. New York: Longman, 1993.
- [13] Suyono. “Dimensi, Jenjang, dan Asesmen Perilaku Berliterasi Siswa di Sekolah”. *Jurnal Ilmu Pendidikan*, Jilid 14, Nomor 2, pp. 69-75, Juni 2007.
- [14] Gillet, J. W., & Temple, C. *Understanding Reading Problems: Assessment and Instruction*. Fourth Edition. New York: HarperCollinsCollegePublishers, 1994.
- [15] Pappas, C. C., Kiefer, B. Z., & Levstik, L. S. *An Integrated Language Perspective in The Elementary School*. London: Longman, 1990.
- [16] Eanes, R. *Content Area Literacy: Teaching for Today and Tomorrow*. Albany: Delmar Publisher, 1997.
- [17] Langer, J., & Flihan, S. (2000). *Writing and Reading Relationship: Constructive Task*. [On-line]. Available: <http://www.knowledgeloam.org/resources.jsp?location=6&tool/> [May 4, 2017]
- [18] Harjanti, M. H. “Peran Kurikulum 2013 dalam Pendidikan Karakter Bangsa”. Internet: <http://www.lmpjatang.go.id/web/index.php/arsip/artikel/876-peran-kurikulum-2013-dalam-pendidikan-karakter-bangsa?fontstyle=f-larger>, 2013 [May 4, 2017].
- [19] Gunawan, I. *Metode Penelitian Kualitatif Teori dan Praktik*. Jakarta: Bumi Aksara, 2013.
- [20] Muzamiroh, M. L. *Kupas Tuntas Kurikulum 2013 Kelebihan dan Kekurangan Kurikulum 2013*. Jakarta: Kata pena, 2013.
- [21] Burns, R *Self-concept Development and Education*, Holt, Rinehart and Winston, London. Internet: <http://www.cerme7unvi.rzeszowpl>, 1982.
- [22] Ekwueme, C. O., & Meremikwu, A. “Evaluation of the Millennium Development Goals Project (NDG) for primary school teachers in Nigeria: Teacher’s perspective”. *International Journal of Research in Education*, 2(6), pp. 84-88, 2010.
- [23] Sobur, A. *Filsafat Komunikasi*. Bandung: PT Remaja Rosdakarya, 2013.

- [24] Luneta, K., & Makonye, P. J. "Learner errors and misconceptions in elementary analysis: A case study of a grade 12 class in South Africa". *Acta Didactic Napocensia*, 3(3), 2010.
- [25] Setiyani, R., dkk. "Persepsi Guru Matematika Kelas X SMK Negeri 2 Salatiga Terhadap Pembelajaran Matematika Berbasis Kurikulum 2013". Internet:
http://repository.uksw.edu/bitstream/123456789/5652/1/T1_202010153_Judul.pdf, 2013 [March 31. 2017]
- [26] Guntur, M. I. S., dkk. "Persepsi Guru Matematika SMA di Kayuagung Terhadap Kurikulum 2013". *Jurnal Pendidikan Matematika*, vol. 9 no. 1, Januari 2015.