

THE ANALYSIS OF ELEMENTARY SCHOOL STUDENT'S ACHIEVEMENT OF SCIENCE PROCESS SKILLS AND SPIRITUAL ATTITUDE THROUGH 2006 CURRICULUM AND 2013 CURRICULUM

Sofyan Hendrayana

Elementary School Teacher FKIP Pasundan University
sopyanhendrayana@unpas.ac.id

Abstract. Based on TIMMS and PISA survey result from 2000 to 2012 indicated that science learning quality in Indonesia is still on the lower level. It is caused by students who are less accustomed to the learning that develop science process skills and inculcate attitude. In addition, nowadays there are schools that use 2006 and 2013 curriculum. Based on those problems, the present of the study aimed to find out how are the fourth grade elementary schools students' achievement of science process skills and spiritual attitude through 2013 curriculum and 2006 curriculum in the SDA (natural recourses) science concept. The study is done qualitatively to the two elementary schools that used 2006 curriculum and two schools that used 2013 curriculum. The instruments of the study are science process skills test in multiple choice, spiritual attitude questionnaire, and videograph to support the researcher to analyze the emerging of students' science process skills and spiritual attitude in learning process. The result of the study show that the means of science process skills test for elementary school that used curriculum 2006 is 64,92%, and 65,53% for those that used 2013 curriculum, whereas the emerging of science process skills for elementary school that used 2006 curriculum is 19,95%, and 17,85% for those that used 2013 curriculum. On the other hand, the achievement of students' spiritual attitude for elementary school 2006 curriculum is 58,90% whereas elementary school 2013 curriculum is 59,15%. Besides that, the emerging of spiritual attitude in learning process for elementary school 2006 curriculum is 1,60%, and elementary school 2013 curriculum is 2,70%. The conclusion of the study is the elementary school students' achievement of science process skills that used 2013 curriculum is greater than the school that used 2006 curriculum. However those contrary to the emerging in learning process, whereas students' spiritual attitude achievement 2013 curriculum is greater than elementary school 2006 curriculum as well as the emerging spiritual attitude in learning.

Keywords : science process skills, spiritual attitude, 2006 curriculum, and 2013 curriculum

I. INTRODUCTION

Indonesia has made frequent curriculum changes, most recently the turn of the 2006 Curriculum known as the Education Unit Level Curriculum (KTSP) to the Curriculum 2013. 2006 Curriculum Enforcement from 2006 to mid 2013. For approximately seven years the 2006 Curriculum is used as a reference. Based on the results of PISA survey in 2009 on science subjects that almost all Indonesian students only master lessons up to level 3, while many other countries are up to level 4, 5, even 6. With the belief that all human beings are created equal, it can be interpreted that learning which do less encourage students to actively and independently in finding and finding the concept

independently, Kusnandar (2007, p. 20). Besides, of course there are problems in the learning process that is done, especially the science lesson which has not yet developed the aspect of science process skill (PPP) and attitude planting.

Based on the results of research that has been done on the skills of the science process, as did Giarty, S (2014, pp. 1) that is doing classroom action research by looking at the improvement of science process skill of fourth graders of elementary school, with the result obtained is the increase of science process skill equal to 15,73% for cycle 1 and 17% for cycle 2. While research conducted by Anam, RS (2013, pp. 98) done to fourth grader of elementary



school, resulted achievement of science process skill with practice activity reaching medium category that is equal to 73 , 3% compared with non-practicum. But the research is only seen from the achievement through the 2006 Curriculum has not seen how the achievement through the Curriculum 2013.

The concept of science learning that can be developed through the science process skills is one of them is the concept of Natural Resources (SDA), where in the Curriculum 2006 the coverage of the material concerning the identification of issues that develop in the natural environment, even natural resources material reappear in Curriculum 2013. This material is materials that require realistic understanding and solutions, requiring high-level thinking skills to be applied in everyday life.

As an integral part of the national education system, learning in schools should have functions and objectives that refer to national education. In this connection schools should develop the ability and form the character and civilization of dignified nation in order to educate the life of the nation with the aim to develop the potential of students to become human beings who believe and pious to God Almighty, noble, healthy, knowledgeable, skilled, creative, independent, and become a democratic and responsible citizen. Therefore it is necessary for the packaging of learning that can explore the potential of students so that students are ready to face the challenges.

One potential that can be developed is the potential of students' spiritual attitudes. Susilowati (2013, p1.1) says that in the Curriculum 2013 more emphasis on the domain of spiritual attitudes, social attitudes, knowledge and skills. This spiritual aspect can be a moral fortress or character for the life of the student in the face of all problems. We often find a condition where students get a higher value of knowledge than the moral (spiritual) attitudes shown, such as the value of Mathematics 9, IPA 9 but there are still elementary school students who say rude by carrying the name of the

animal, less concerned about the environment, cheating on the exam, brawny high schools, to corruption in every institutional element. It shows that the man has not embedded his spiritual values and when the teacher's learning only focus on the mastery of cognitive ability alone, without the ability to follow how students can connect the teaching materials with the greatness of God Almighty (YME), as well as positive habits based on religion . This shows that there is no balance between hard skills and soft skills.

The research that has been done on the spiritual attitude of elementary students, as performed by Nurhayati, L.A. et.al (2010, p.1) that there is a very significant positive relation between environmental knowledge and the spirituality of the students. While the results of research Afifah, H. (2011, pp. 67) obtained the average spiritual intelligence of students reached 64 in both categories and the average learning achievement of moral character to 68 in either category, while the conclusion that spiritual intelligence can affect learning achievement. However, the study conducted through the 2006 Curriculum has not been compared with the outcomes of learning through the Curriculum 2013.

From these findings it can be seen that the science process skills and spiritual attitude of the students is very important to be applied in balancing soft skills and hard skills both through Curriculum 2006 and Curriculum 2013.

II. STUDY OF MATERIAL

A. Science Process Skills

Samatowa (2006, pp. 137) suggests that "science process skills are the intellectual skills that scientists have in the study of natural phenomena". The science process skills used by these scientists can be studied by students in simpler forms according to the stage of child development. The Nuryani and Andrian (in Nugraha, A. 2005, p 125) define "the skills of the process of science are all the skills necessary to acquire, develop and apply the concepts,



principles, laws and theories of science, whether in the form of mental skills, physical skills (manual) as well as social skills".

Based on the skill component of the science process from several experts, then in this study the components used as the focus of research is the component of the science process skills of Rustaman. The components are not examined all but only a few, that is; skills ask questions, classify (group), predict, apply concepts, plan experiments, and draw conclusions. This is because the six components are the aspect that best suits the developmental task of fourth grade elementary school students, namely the basic thinking development task that leads to high level thinking exercise early on, and the six aspects require critical thinking, logical, and systematic. This is in line with Sagala's opinion (2008, p.57) that in order for students to be successful in learning, certain requirements are required, one of which is to practice high thinking skills for their students. It is characterized by critical, logical, systematic, and objective thinking.

A number of studies have been conducted on the skills of the science process, as did Giarty, S. (2014, pp. 1) that is conducting classroom action research by looking at improving the science process skill of fourth grade students of SD, , 73% for cycle 1 and 17% for cycle 2. While research conducted by Anam, RS (2013, pp. 98) done to fourth graders of elementary school, resulted in the achievement of science process skill with practicum activity reaching moderate category that is equal to 73,3% compared with non-practicum. However, the study focused only on the application of the 2006 Curriculum in schools, not yet seen how the achievements obtained from schools that implement the Curriculum 2013.

B. Spiritual Attitude

Spiritual in essence is the intelligence to deal with problems and solve problems related to meaning and value by placing the behavior of

human life in the context of a wider and rich. According to Hamid, S.A. (1999, p.3) that "the spiritual is the belief in relation to the Almighty". Meanwhile, according to Harjani, H. (2008, p.6) states that "spiritual intelligence is the ability to listen to conscience to intelligently connect with God and others in giving the best and useful".

According to Rossiter, G. (in de Souza, M. et.al., 2009, p.685) states that religious and spiritual is a different matter, the religious is more connoted to the act of worshipping the God YME in particular, such as the prayer worship performed Muslims. While the spiritual is an attitude or moral action that is done in everyday life as a form of influence from the religious. Basically, spiritual is a part of religious application, even spiritual can be influenced by a discipline, as in the lesson of Islamic Religious Education (PAI) there is spiritual in the form of attitude of moral character, in science we know scientific attitude, in Social Sciences (IPS) we know social attitudes, they are part of the spiritual.

The above is consistent with Lickona's opinion (in Engelbertrus and Betriks, 2014, p. 47) that morality is part of the character, in which characters have three interrelated components of moral knowledge, moral feeling, and moral behavior. If it is related to Rossiter's opinion then it can be concluded that spiritual attitudes are part of the character.

Spiritual attitudes are basically already owned by humans from birth, that is, as long as humans have an understanding of what is good to do and what is not good not to do. On the other hand the existence of spiritual attitudes that already exist in man as a capital in behaving should always be maintained and nurtured with new knowledge that build, so that the human heart will feel and understand the environment and surroundings. This is because the spiritual attitude of the human being coupled with new knowledge that builds up in a positive direction, supported by emotional level and intelligence will result in action. Such actions can be positive



or negative depending on the acceptance of knowledge from the environment. Knowledge can be either taught religious knowledge or actions received by humans from the environment. This corresponds to the image of the spiritual scheme according to de Souza.

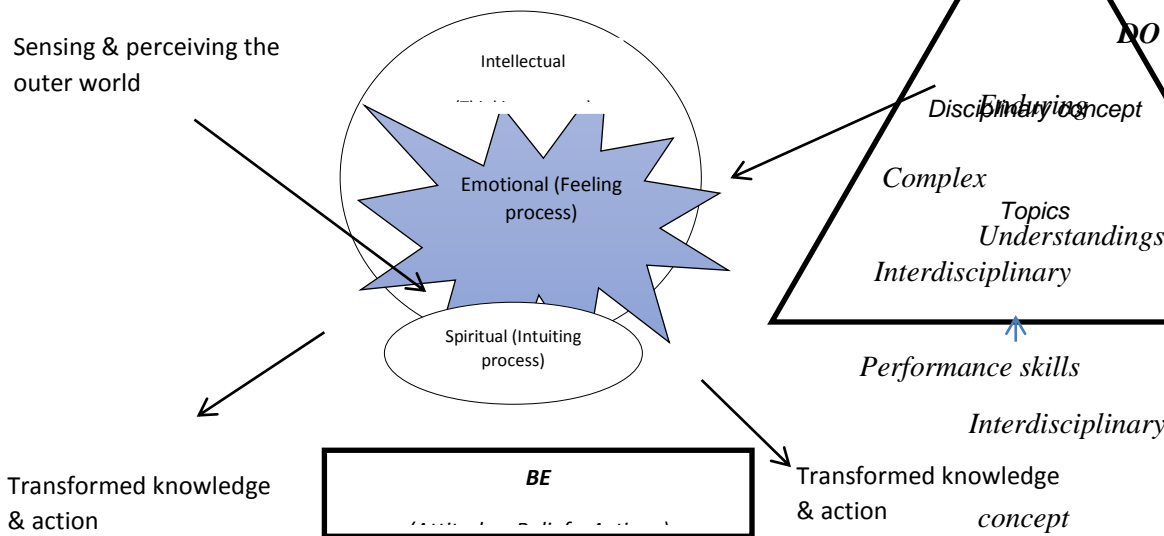


Figure 1. The spiritual scheme of de Souza (2004, pp.1131)

Spiritual attitudes are increasingly developed in the next curriculum of the Curriculum 2013, where in the Curriculum 2013 spiritual attitudes are placed on the first Core Competence (KI 1) with the following components; receive, run, respect, live, and practice.

The 2013 curriculum emphasizes the modern pedagogic dimension of learning, which is integrative thematic by using a scientific approach. The underlying theme of integrative thematic learning is that learning when initiated by searching the facts through observation is supported by the topic or theme as a unifier between disciplines.

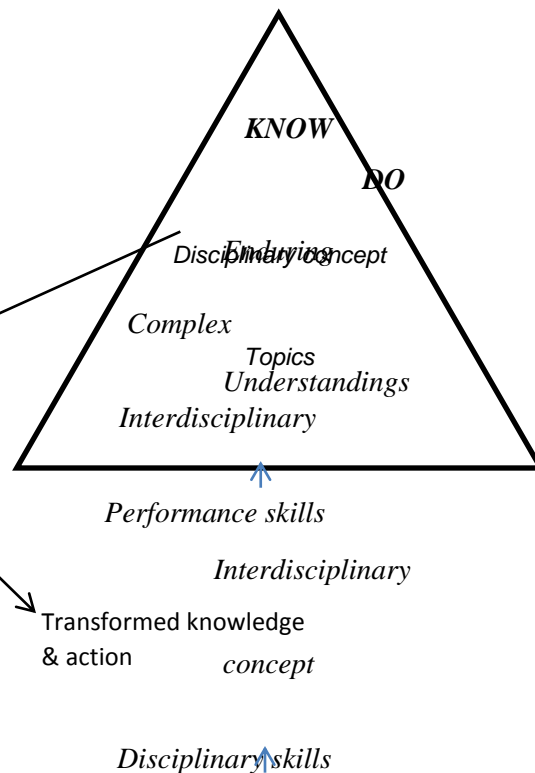


Figure 2. Schema Knowledge Relation, Action, and Attitude (Drake, S. M and Burns, R.C. 2004: 50)

Good knowledge is not enough if it is not supported by activities involving psychomotoric or student skills such as practicum activities. It is intended that students can experience positive development both in terms of knowledge and skills. But here teachers have a very important role so that knowledge and skills can evoke an attitude that is in line with expectations, one of which is a scientific attitude. So in other words based on figure 2, that scientific attitude will arise if supported with the right knowledge and good skills.

III. RESEARCH METHODS

The population in this research is the fourth graders of elementary school in the school



applying curriculum 2006 and elementary school applying Curriculum 2013 located in Cirebon city area. The sample selection of this research is done by using purposive sampling technique, where the sample is determined in accordance with the criteria of research problems, namely schools that use Curriculum 2006 and Curriculum 2013. The number of schools to be studied should be balanced between schools using the 2006 Curriculum and Curriculum 2013, schools located in the city area of Cirebon. The method used in this research is descriptive method. This method is done in describing the achievement of science process skills and spiritual student attitude of elementary school through Curriculum 2006 and Curriculum 2013.

Descriptive research aims to describe things that appear in the research process both seen from the process and results. Descriptions include: recording, analysis, and interpretation of the phenomenon of current events. The instruments used are; science process skill test, spiritual attitude questionnaire, video recording with the software videograph software.

IV. RESEARCH RESULT

A. Achieving the Skills of the Science Process Judging from the Test Results

The achievement of students' science process skills derived from the test data.

Table 1. Data of Student Science Skills Test Achievement

No.	Components of Process Skills of Science	Curriculum 2006			Curriculum 2013			Component Average
		S1 (%)	S2 (%)	Average (%)	S3 (%)	S4 (%)	Average (%)	
1.	Asking Questions	63	58	60,5	63.5	68	65,75	63,13
2.	Classify	78,7	72	75,35	68.1	69,3	68,7	72,03
3.	Predicting	76	64	70	56.3	58	57,15	63,60
4.	Applying the Concept	62,7	61.3	62	70.8	60	65,4	63,87
5.	Planning an Experience	61	53	57	60.4	62	61,2	59,10
6.	Drawing Conclusion	68	61.3	64,65	80.6	69,3	74,95	69,80
<i>Average Percentage of Each Curriculum</i>				64,92			65,53	

Information : S1 (School 1), S2 (School 2), S3 (School 3), dan S4 (School 4)

Based on the table looks at the components classify, where schools in both curriculum shows a fairly high average achievement rate of 72.03%, it means that the component almost many students who have mastered the ability to classify both in the aspects of grouping based on similarities and differences . This is because students are getting used to facing the type of classification problem. This is supported by teachers in the learning process, ie almost every teacher has been able to master in bringing the skills of special science processes in the classification component.

The achievement of percentage of science process skill as a whole seen from each

component, that is school with Curriculum 2013 able to show percentage of achievement of science process skill test is bigger than with average percentage of school with Curriculum 2006 that is by 0,61% difference, for SD with The 2006 curriculum amounted to 64.92% while the SD with the Curriculum 2013 was 65.53%. This is appropriate when viewed from the aspect of applying the scientific approach applied to elementary schools that have applied the Curriculum 2013. Where the scientific approach in its process emphasizes the application of science process skills. This is in line with the opinion of Kemdikbud (2014, p. 18) that "the learning process with a scientific approach can be matched by a scientific process and it is believed that the scientific approach is the



golden thread of development and development of attitudes, skills and knowledge."

Permendikbud Number 81 A Year 2013 attachment IV (Kemdikbud (2014, p.19) that in the scientific approach students are invited to

find their own knowledge by linking information obtained with their cognitive structure" which is carried out not conventionally but must use an approach or model that enables students to have meaningful learning, as is the case in Yanthi, N. (2012, pp. 89). It is proved that there is a

No.	Components of Process Skills of Science	Curriculum 2006					Curriculum 2013					Component Average
		G1		G2		Average (%)	G3		G4		Average (%)	
		minute (%)	minute	minute (%)	minute (%)		minute (%)	minute (%)				
1.	Asking Questions	0,67	0,50	1,67	0,70	0,60	12,3	2,80	1,33	0,20	1,50	1,05
2.	Classify	21	17,30	28,7	12,60	14,95	49,7	11,10	5	0,70	5,90	10,43
3.	Predicting	0,67	0,50	1	0,40	0,45	9	2,00	1,67	0,20	1,10	0,78
4.	Applying the Concept	2	1,60	0	0	0,80	10	2,20	7,33	0,90	1,55	1,18
5.	Planning an Experience	0	0	13,3	5,80	2,90	50,7	11,40	0	0	5,70	4,30
6.	Drawing Conclusion	0,67	0,50	0	0	0,25	17,3	3,90	2	0,30	2,10	1,18
Σ			20,40		19,50	19,95		33,40		2,30	17,85	
Average Percent of Every Occurrence						3,33						2,98

explore the ability to observe, question, collect information, process information, and communicate. These five aspects are part of the skills of the science process that can guide the students to find their own knowledge, and that means that elementary school applying Curriculum 2013 has shown achievement of average percentage of science process skill which is superior compared to SD applying of Curriculum 2006, especially achievement of learning result still depend on creativity of teacher in creating process of learning meaningful, this is in line with Ausubel's opinion (in Dahar, RW 1996, pp. 111) states that "meaningful learning occurs only when students

difference in the increase of science process skill between conventional learning with guided inquiry application with statistical test of t value (6,466) > t table (95%) (n = 29) with sig. (0,000) < 0.05. Meanwhile, based on Samsudin (2009, pp. 105) research, it is proven that learning problem based learning can improve students' science process skill when compared with conventional learning, with preliminary and final test obtained an increase of 34.5% in experimental class and 20% in class control.

Based on the above table it can be seen that the average level of achievement of students' science process skills between elementary schools implementing Curriculum 2006 with SD



applying Curriculum 2013 results not far adrift. However, the difference in achievement is clearly seen, where schools with the 2013 Curriculum are greater than the schools that apply the 2006 Curriculum by 1.76. SD with the 2006 Curriculum average score obtained by 63.96 while the 2013 Curriculum average score obtained of 65.72. Sekaitan with the results of the discussion above shows that learning by facilitated through meaningful learning models such as scientific approach in Curriculum 2013, inquiri model, and contextual approach can improve students' skills in science process skills. This is in line with the opinion of Dökme, i and Aydinli, e (2009, p 544) that science learning in elementary schools with inquiri model can develop students' skill in science process skills.

Information: G1 (Teacher 1), G2 (Teacher 2), G3 (Teacher 3), and G4 (Teacher 4)

Based on the table on the previous page shows that the average percentage of occurrences of science process skills in the process of learning for elementary school with the 2006 Curriculum shows a larger number than the SD that apply Curriculum 2013, while the difference is 0.35%. This is inversely proportional to the achievement of the test results. The results of elementary school with curriculum 2013 greater achievement than SD with Curriculum 2006, while in the process of the emergence of science process skills in learning, SD with Curriculum 2006 greater achievement than SD with Curriculum 2013. This is very ironic if viewed from the aspect of the process, where the Curriculum 2013 in the process is facilitated by the use of a scientific approach that refers to process skills. This is again dependent on teachers, where teachers are required to be more creative in developing learning, even in the Curriculum 2013 every aspect has been facilitated by the government, such as the book teachers and student books, reference Learning Implementation Plan (RPP),

2. The Appearance of Processing Skills of Science in Learning

In observing the emergence of science process skills in learning, researchers use videograph as one software that allows researchers to analyze the emergence of an aspect through video. The ease allows researchers to adjust the duration of the analysis, determine the expected indicator of emergence until the results can be out in SPSS 20. The average appearance of students' science process skills in the learning process can be seen in the following table.

Table 2. Average Occurrence of Student Science Process Skills in the Learning Process

syllabus and some questions enrichment already contained in the book of teachers. But if the teacher's understanding of the learning process in the Curriculum 2013 is still low, then in the process many possible aspects do not arise.

On the other hand, schools implementing the 2006 Curriculum have an almost uniform science skill emergence rate of 20.40%, while the G2 school is 19.50%. This has a tendency that the two teachers almost have the same level of mastery of skills in generating students' science process skills in the classroom, although there are still components that have not yet emerged in school G1 that is the experimental planning component, while the G2 schools that have not yet emerged are components of applying the concept and draw conclusions. But if researchers observe especially schools that implement the Curriculum 2013, seen a significant difference, where the school on G3 has a level of science process skills appearance of 33.40% while at school G4 of 2.30%. This suggests that G3 has a deeper understanding of science's skill-building process by showing the appearance data on each component. But it is different in G4 that there is still a component of



process skill that does not appear that is planning the experiment.

Learning process is not always effective and efficient and the result of teaching and learning process is not always optimal, because there are a number of obstacles. Therefore, teachers in providing course material only useful and useful for their students. The material is tailored to their needs for the lesson. Learning like this will give priority to mastery of science, and it is believed will provide opportunities for more creative students and teachers more professional. Thus learning will be more meaningful where the teacher is able to create

learning conditions that can build students' creativity to master science and have life skills. This agrees with Thorndike (in Sagala, S. 2008, p.501) that "learning is the process of acquiring skills, skills, and attitudes."

3. Achievement of Student's Spiritual Attitude

In this study the researchers also explained the level of attainment of students' spiritual attitudes through a questionnaire instrument related to the statement about SDA.

Table 3. Achievement of Student Spiritual Attitudes Based on Result of Questionnaire

Komp onents	No. State ment	Curriculum 2006				Curriculum 2013				Avera ge Comp onents
		S1		S2		S3		S4		
		No	Agree	No	Agree	No	Agree	No	Agree	
Appre ciate	1.	8	16	17	0	11	3	13	8	44,7%
		24		17		14		21		
	2.	13	0	4	0	10	2	15	0	
		13		4		12		15		
	3.	1	3	1	4	0	1	0	3	
4		5		1		3				
Persen tae	54,7%		34,7%		37,4%		52%			
		44,7%				44,7%				
Living up	4.	6	15	12	5	10	3	9	5	57,05 %
		21		17		13		14		
	5.	1	7	0	14	1	12	3	10	
		8		14		13		13		
Persen tae	58%		62%		54,2%		54%			
		60%				54,1%				
Practi ce	6.	2	19	0	12	4	15	0	15	75,3%
		21		12		19		15		
	7.	5	3	8	4	5	6	10	10	
		8		12		11		20		
	8.	0	21	0	22	0	21	0	25	
		21		22		21		21		
9.	25	0	23	0	24	0	23	0		
	25		23		24		23			
Persen tae	75%		69%		78,15%		79%			
		72%				78,58%				
Average Percentage Spiritual		62,6%		55,23%		56,6%		61,7%		
		58,9%				59,15%				59,02 %

Information : S1 (School 1), S2 (School 2), S3 (School 3), dan S4 (School 4)

The discussion of the achievement of the students' spiritual attitude based on the table questionnaire is as follows:

a. Appreciate

The percentage achievement in this component has an equity in every school, where students in schools with the 2006 Curriculum have the same average as the schools that implement the Curriculum 2013 of 44.7%. This is because in this component students are able to mention how to appreciate all creation of God YME. This is because every school students are always stimulated to be able to show how to appreciate the natural environment created by God YME. Giving stimulus or stimulus in instilling spiritual attitudes is the most effective way to know how students show attitudes toward the natural environment. This is in line with Sundari research, F.S (2012, pp. 176-178) that in the process of science learning, students can generate good character with optimal learning activities when the teacher gives stimulus or stimulus.

b. Living up

Living in the sense of believing that all creation of God YME bring benefits to other living things. The percentage achievement in this component has an average of 57.05%, whereby schools implementing the 2006 Curriculum occupy a greater percentage position than schools implementing the Curriculum 2013, ie by a margin of 5.9%. The achievement of schools with the Curriculum 2006 reached 60% while the school with the Curriculum 2013 reached 54.1%. This is because students in schools with the 2006 Curriculum in the process focused on natural resources and teachers more effective in stimulating students to be able to mention the benefits of natural resources. This is inversely proportional to schools implementing the Curriculum 2013, whereas in the curriculum learning has been

facilitated by the activities of contemplating. However, because the focus of the researcher is in the material of SDA, while the activity of reflecting the students in theme 8 where the SDA is connected with other aspects, let alone supported by the teacher who has not to lead the students to understand the utilization of natural resources, so the students have not gained the concept of optimal utilization of natural resources.

c. Practice

Practice in the sense of performing beneficial acts against God's creation YME. The achievement of percentage of components practicing almost all shows good results, that is, having an average of 75.3%. This is because the components of student practice feel used to be associated with cognitive knowledge or student experience in everyday life, because the components mengamalkannya more toward the experience either from the previous pengetahuan or acts that are always exemplified by teachers and parents at home. On the other hand seen in this component, where students with the Curriculum 2013 has a greater attainment of spiritual attitudes of 78.58% when compared with students applying the 2006 Curriculum that is equal to 72%. In addition, the application of integrated learning supports students' ability to practice through action, as do teachers at school 3 (S3) who convey in learning that "all creation of God YME has benefits like fish. But if the way of his capture by using explosives then not only the fish are exposed to toxins but the environment will be polluted, therefore we must catch it in an environmentally friendly way ". Here we see the integration between the concept of religious education, civic education, science and environmental education (PLH), so that through the integration of the concept students will be easily directed to be able to apply the character of a good spiritual attitude. This is in line with the results of Zuchdi's research,



D. (2010, pp. 11) that effective character education is one that uses a comprehensive approach. The learning is not only through a particular field of study, but it is integrated into various fields of study.

V. CONCLUSION

Based on research that has been done on the achievement of science process skills and spiritual attitudes of grade IV elementary school students in science learning through the application of Curriculum 2006 and Curriculum 2013. So this research can be drawn conclusion as follows.

The achievement of students' science process skills at schools implementing the 2006 Curriculum and Curriculum 2013 based on test results, both within the range of moderate achievement. Schools with the Curriculum 2013 get a higher average score achievement than school with Curriculum 2006. However, this condition is inversely related to the emergence of science process skills in the learning process is analyzed through software videograph, where the average number of occurrences of science process skills in schools with the Curriculum 2006 got more outcomes than schools implementing the Curriculum 2013, but both are on the "little aspect of emerging" criteria.

The attainment of students' spiritual attitudes towards schools that implement the 2006 Curriculum and Curriculum 2013 based on achievement data from the questionnaires, including the achievement of spiritual attitudes of students who use the Curriculum 2013 is greater than schools implementing the 2006 Curriculum. Based on these results are associated with the criteria of attaining spiritual attitudes on Chapter III, states that schools with the 2006 Curriculum as well as the Curriculum 2013 if the percentage of achievement is converted into the criteria of spiritual attitudes in life, then the school students have "begun to culture". This is in line with the learning process in which the emergence of many spiritual attitudes raised by schools that use the

Curriculum 2013 compared with schools that use the Curriculum 2006. It is in accordance with the essence of Curriculum 2013 where learning activities are designed in three domains (attitude, knowledge and skills). Based on the data associated with the criterion of occurrence in chapter III states that schools with both curriculum if the percentage of occurrences of spiritual attitudes are converted into the criterion of occurrence, then both are on the criteria of "a small part of the aspect arises".

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