RESEARCH ARTICLE

DESIGN OF LEARNING MATERIALS BASED ON MULTIMEDIA TO INCREASE THE LANGUAGE ABILITY OF AUTISM CHILDREN.

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Manuscript Info	Abstract
	………………………………………………………………………… This study aims to producedesign of learning materials based on Multimedia to increase the language ability of autism children class 1 SLB, which adjusted with the needs analysis of autism children in Special Schools Mandara 1 and 2,KotamadyaKendari. Design of learning materials based on Multimedia to increase the language ability used qualitative and quantitative approach with Research and Development method (R&D). The sample of study was divided into two stages, the first stage were 2 studentsof autism children who had medium levels of autism disorder and 2 teachers.The second stage is model development,implemented by analyzing the needs from 4 teachersand material feasibility analysis which has done from 4 teachers who taught in autism class. The results of this study conclude that (i)) the content of learning materials based on need analysis of Multimedia must contain the language components ie alphabet, word, syllable and a combination of simple words (phrases) which was integrated into supporting media, this result was proved by total average value 4.22 in "**very high**" category, (ii) the previous of used learning materials still has lack from material content feasibility aspect, the material accuracy, the use of language, the layout on teaching materials and the completeness of material support which is still limited, This result showed that the average value in "**fairly high**" category, it was 2.81.

Introduction:-
Autism was derived from the word "auto" which means living in his own world (Faisal, Yatim, 2003). Autism children have developmental obstacles in three aspects, namely obstacles in **social interaction, communication** Marcus P. Adams, 2018 **), and behavior (**Giacomo Vivanti and Sally J. Rogers, 2014). As a social beings, they can't live alone and certainly need others, to make relation with others they need one tool that the most absolutely fulfill, it is language. Therefore, good language skills is very needed according with the existing rules (Zainal aqib,DKK, 2017),.

The most of autism children have communication disorder and abnormalities in their language center (.Ka-Yuet Liu, Marissa King and Peter S. Bearman, 2010). The language skills average of autism children are lower than normal-

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age children, either in receptive language or in expressive language skills (Kristelle Hudry†, Kathy Leadbitter‡ *ed*, 2010). The slackness development of language skills can affect to various functions in their life. Besides affecting to their personal and social life, it will also cause difficulties in the learning process (Gerald c. Davidson, John M. Neale, Ann M. Kring 2014).

The most important component in language development disorder of autism children consists of two main components namely attention or processing of information (receptive) and express the information (expressive), generally receptive abilities are relatively higher disturbed than expressive ability,so the wrong intervention will cause a very big effecttoward the development of language (Susan Peppé, *ed*, 2006).

One of the most important parts in intervention process of autism children is the competence of educators(Kelly Chandler-Olcott,&Paula Klut, 2009). The educator must be able to provide what the children needs as the heir and the next generation of society and state life. But the reality shows that the educators lack understanding the deep concept about autism children. so the planning, execution and evaluation process not running maximally. This case will cause big problems for language development of autism children in the future.

Based on observations, the obstacles or communication disorderwhich is experienced by autism children can not be ignored, because the children can have difficulty to interact and socialize in their surrounding environment. Therefore, required a learning process which is more effective and efficient and it can be done as an effort to help the autism children who are experiencing in communication disorder.

The language skill obstacles of autism children can be overcome through multimedia utilization (Ailsa E. Goh Linda M. Bambara Nanyang , 2013). Currently, the role of multimedia is become increasingly important to answer the problems faced by autism children who are experiencing disorder especially on the language aspect. Media is designed to complement each other so that all existing systems become efficient and effective, where a unity becomes better than the sum of its parts (Bdertram O. Ploog& Alexa Scharf, *ed*, 2012). Vaughan (2011)said that the above Concept stressed thatin the learning process of autism children who are experiencing language disorder, required a design model of learning mediawhich is effective and efficientas an alternative, namely the model of learning mediawhich is expected to involve studentsin the whole learning processand can involve all aspectsie students language, cognitive, affective, and psychomotor.One of the learning modelswhich can overcome language disorder of autism children is learning based on Multimedia.

Methods of The Study
The approach of development learning materials design based on Multimedia to increase the language ability used qualitative and quantitative approach with Research and Development method (R&D)(Walter Dick, Laou Carey, James o. Carey,2009).

Objectives of study, as an objects in this development learning materials designconsists of two main points ie 1). The first stage of the study was conducted at SLB Mandara 1 by interview the teachers, then observation the learning documentssuch as Teacher Book, Student Book, Assessment, supporting mediaand objective characteristics of autism children, in the first stage the study involved 2 students who are 7 and 11 years oldand 2 teachers. Then, 2). The second stage of development learning materials design byanalyzed needs and feasibility of the previous learning materials.This stage conducted by given the assessment instrument, it was questionnaire, thequestionnaire about needs has been given to 4 teachers of austism class, and the questionnaire about feasibility of learning materials also given to 4 teachers of autism class. Based on the both stagesthen the researcher can design the learning materialswhich suitable with the needs of autism children in contextually, logically and systematically.

Results of The Study and Discussion
Design analysis based on Multimedia which also based on needs and feasibility analysis of previous learning materials,practicallyjust done two stages of many stages that contained in the R&D,namely : (1) Introduction, (2) Model Development.

The first stage, introduction,with analyzed the general descriptionof existing learning documents, such as Teacher Books, Student Books, Syllabus, RPP, Assessment, supporting media and objective conditions of autism children at SLB Mandara 1. The focus of learning documents analyzed included :(1) the purpose of language learning, (2) the

process and content of learning, (3) teacher and children reaction pattern in interaction, (4) learning support system, and (5) focus on the students objective conditions.

The second stage, the development of learning material was done by analyzed the needs of autism children and material feasibility which was on going.

Based on the both stages above, the development learning materials design based on Multimedia to increase the language ability of autism children, produces several things as follows :

1) *The first stage,* the general description about the objective conditions of language learning in 2013 Curriculum that conducted in SLB Mandara 1, *resulting a gap between needs analysis with result of condition analysis.* This can be proven from the result of document review which was conducted through observation and interviews on the aspects of the study analyzed, they were :

   a. Aspects of language learning goals in 2013 Curriculumshows that the learning implementation of autism children still having difficulty in speaking. It was caused by several factors, among others : (1) the less chance for children to practice their language skills, (2) the children were given the exercises that tend to focus on improving psychomotor skills, (3) support media to increase the language skills of children not adequate and not yet well integrated between media that provided with the exercises which contained in the Student Book, (4) the density of the material makes the children less focused, (5) the material that presented was less systematic and not based on the children needs.

   b. Aspects process and language learning content of autism children class 1 SLB. There were three stages that teachers should do in learning process, namely the introduction stage, the main activity stage, the closing stage. In general, introduction stage start from 1) asking for material at the previous meeting or do apersepsi, 2) explain briefly about the objectives that will be achieve at the current meeting and praying. The main activity stage, learning activities directly explain about the material which associated with improvement of language skills. The last stage is closing. Closing activity is the last of all activities in class. Based on the observation of document in class*, show that*teachers do not run properly the learning process in the classroom because of several factors : 1) the classroom teachers do not prepare learning materials such as Sillabus and RPP that should be designed by the teacher, 2) the lack of planning, implementation and evaluation by teachers, 3) in the main activity, the limitation of teachers in understanding about the basic concepts of autism children which impact only on strengthening one aspect of its competence, it was psychomotor aspect only.

   c. Aspects of social reactions pattern between teachers and children in interacting. From the observation we found thatteacher's behavior patterns in respondingchildren's behavior in learning was tend to dominate the class. Teacher did not show his position as facilitator, mentor and coach.

   d. Supporting aspects in language learning process of autism children class 1 SLB inadequate. Teachers more use guidance of exerciseswhich has been published in Student Book 2013 Curriculum. The guidance was less practical to followed by autism children because it was not supported by the proper learning media to increase their language skills.

   e. Aspects of children's objective conditions shows that : 1) uneven age range in one study group causing learning not optimal, 2) no diagnoses from psychologists about the level of autism spectrum disorders in children causing teachers difficulties to intervening the children.

Based on the deficiencies in the first stage then the researchers do the second stage, it was the stage of needs and feasibility analysis from the previous material which are included in the assessment form (questionnaires).

2) *The second stage,* about children needs analysis. *The analysis results* show a "**very high**" levelwith an overall average score 4.22on the whole question group, namely : a) Information type, b) language skills strategy, c) language group, d) theme and subtheme of learning, e) learning activities, and f) learning evaluation. It shows that the model design of learning materials that offered by researchers was very feasible to apply in language learning toward autism children. Meanwhile for the material feasibility stage which currently in use was in "**fairly high**" level with an overall average score of 2.81 in the whole group of questions, such like :1) feasibility of content, 2) accuracy of material, 3) the use of language, 4) layout, 5) completeness of supporting learning materials.It shows that on the current material feasibility aspect, to increase the language skills of autism children,it was necessary to present materials related to the language component ie alphabet, words, syllables and and a combination of simple words (phrases) which supported by interactive learning media.

Based on the findings from one and two stages, then the researcher can design the learning materials which based on the both stages that contained questionnaire needs and feasibility in table below :

The Responses of Respondent and
The Needs of Learning Materials

NO	ANSWER	RESPONDEN					ANNOTATION			
		1	2	3	4	5	AMOUNT	TOTAL	AVERAGE	CATEGORY
1	SP	5	5	5	5		20	24	4,80	Very High
	P					4	4			
	CP						0			
	TP						0			
	STP						0			
2	SP		5	5		5	15	23	4,60	Very High
	P	4			4		8			
	CP						0			
	TP						0			
	STP						0			
3	SP		5	5			10	22	4,40	Very High
	P	4			4	4	12			
	CP						0			
	TP						0			
	STP						0			
4	SP	5	5	5			15	23	4,60	Very High
	P				4	4	8			
	CP						0			
	TP						0			
	STP						0			
5	SP	5	5	5		5	20	24	4,80	Very High
	P				4		4			
	CP						0			
	TP						0			
	STP						0			
6	SP	5	5	5		5	20	24	4,80	Very High
	P				4		4			
	CP						0			
	TP						0			
	STP						0			
7	SP		5	5			10	22	4,40	Very High
	P	4			4	4	12			
	CP						0			
	TP						0			
	STP						0			
8	SP		5				5	21	4,20	Very High
	P	4		4	4	4	16			
	CP						0			
	TP						0			
	STP						0			
9	SP		5				5	20	4,00	High
	P	4		4		4	12			
	CP				3		3			
	TP						0			
	STP						0			
10	SP	5	5	5		5	20	24	4,80	Very High
	P				4		4			
	CP						0			

No							Sum	Total	Mean	Rating
	TP						0			
	STP						0			
11	SP		5	5		5	15	23	4,60	Very High
	P	4			4		8			
	CP						0			
	TP						0			
	STP						0			

No							Sum	Total	Mean	Rating
12	SP		5	5		5	15	23	4,60	Very High
	P	4			4		8			
	CP						0			
	TP						0			
	STP						0			
13	SP		5	5		5	15	22	4,40	Very High
	P	4					4			
	CP				3		3			
	TP						0			
	STP						0			
14	SP	5	5	5			15	22	4,40	Very High
	P				4		4			
	CP				3		3			
	TP						0			
	STP						0			
15	SP	5	5	5			15	22	4,40	Very High
	P				4		4			
	CP				3		3			
	TP						0			
	STP						0			
16	SP	5	5				10	20	4,00	High
	P			4			4			
	CP				3	3	6			
	TP						0			
	STP						0			
17	SP		5	5		5	15	22	4,40	Very High
	P	4					4			
	CP				3		3			
	TP						0			
	STP						0			
18	SP		5	5			10	20	4,00	High
	P	4				4	8			
	CP						0			
	TP				2		2			
	STP						0			
19	SP		5				5	20	4,00	High
	P	4		4	4		12			
	CP					3	3			
	TP						0			
	STP						0			
20	SP						0	14	2,80	Fairly High
	P						0			
	CP	3		3	3	3	12			
	TP		2				2			
	STP						0			

No										
21	SP						0	19	3,80	High
	P	4		4	4	4	16			
	CP		3				3			
	TP						0			
	STP						0			
22	SP						0	20	4,00	High
	P	4	4	4	4	4	20			
	CP						0			
	TP						0			
	STP						0			
23	SP						0	20	4,00	High
	P	4	4	4	4	4	20			
	CP						0			
	TP						0			
	STP						0			
24	SP	5					5	20	4,00	High
	P		4	4	4		12			
	CP					3	3			
	TP						0			
	STP						0			
25	SP						0	19	3,80	High
	P	4	4	4		4	16			
	CP				3		3			
	TP						0			
	STP						0			
26	SP						0	17	3,40	High
	P		4	4			8			
	CP	3			3	3	9			
	TP						0			
	STP						0			
27	SP						0	17	3,40	High
	P		4	4			8			
	CP	3			3	3	9			
	TP						0			
	STP						0			
28	SP						0	20	4,00	High
	P	4	4	4	4	4	20			
	CP						0			
	TP						0			
	STP						0			
29	SP						0	20	4,00	High
	P	4	4	4	4	4	20			
	CP						0			
	TP						0			
	STP						0			
30	SP				5		5	21	4,20	Very High
	P	4	4	4		4	16			
	CP						0			
	TP						0			
	STP						0			
31	SP				5		5	21	4,20	Very High
	P	4	4	4		4	16			
	CP						0			

	TP						0			
	STP						0			
32	SP						0	20	4,00	High
	P	4	4	4	4	4	20			
	CP						0			
	TP						0			
	STP						0			
33	SP						0	20	4,00	High
	P	4	4	4	4	4	20			
	CP						0			
	TP						0			
	STP						0			
34	SP						0	20	4,00	High
	P	4	4	4	4	4	20			
	CP						0			
	TP						0			
	STP						0			
35	SP						0	20	4,00	High
	P	4	4	4	4	4	20			
	CP						0			
	TP						0			
	STP						0			
36	SP						0	20	4,00	High
	P	4	4	4	4	4	20			
	CP						0			
	TP						0			
	STP						0			
37	SP		5	5			10	21	4,20	Very High
	P	4				4	8			
	CP				3		3			
	TP						0			
	STP						0			
38	SP		5	5			10	22	4,40	Very High
	P	4			4	4	12			
	CP						0			
	TP						0			
	STP						0			
39	SP		5	5			10	22	4,40	Very High
	P	4			4	4	12			
	CP						0			
	TP						0			
	STP						0			
40	SP	5	5	5		5	20	24	4,80	Very High
	P				4		4			
	CP						0			
	TP						0			
	STP						0			
41	SP		5	5			10	21	4,20	Very High
	P	4			4		8			
	CP					3	3			
	TP						0			
	STP						0			
42	SP		5				5	20	4,00	High

No										
	P	4		4	4		12			
	CP					3	3			
	TP						0			
	STP						0			
43	SP	5	5	5			15	22	4,40	Very High
	P				4		4			
	CP					3	3			
	TP						0			
	STP						0			
44	SP		5				5	20	4,00	High
	P	4		4	4		12			
	CP					3	3			
	TP						0			
	STP						0			
45	SP	5	5	5		5	20	24	4,80	Very High
	P				4		4			
	CP						0			
	TP						0			
	STP						0			
46	SP		5	5			10	21	4,20	Very High
	P	4			4		8			
	CP					3	3			
	TP						0			
	STP						0			
47	SP	5	5	5		5	20	24	4,80	Very High
	P				4		4			
	CP						0			
	TP						0			
	STP						0			
48	SP	5	5	5			15	22	4,40	Very High
	P					4	4			
	CP				3		3			
	TP						0			
	STP						0			
49	SP	5	5	5			15	22	4,40	Very High
	P					4	4			
	CP				3		3			
	TP						0			
	STP						0			
50	SP	5	5				10	20	4,00	High
	P			4			4			
	CP				3	3	6			
	TP						0			
	STP						0			
51	SP	5	5	5			15	23	4,60	Very High
	P				4	4	8			
	CP						0			
	TP						0			
	STP						0			
52	SP	5	5	5			15	22	4,40	Very High
	P					4	4			
	CP				3		3			

	TP						0			
	STP						0			
53	SP	5	5	5			15	23	4,60	Very High
	P				4	4	8			
	CP						0			
	TP						0			
	STP						0			
54	SP	5	5	5		5	20	23	4,60	Very High
	P						0			
	CP				3		3			
	TP						0			
	STP						0			
55	SP	5	5	5			15	22	4,40	Very High
	P					4	4			
	CP				3		3			
	TP						0			
	STP						0			
56	SP	5	5	5			15	23	4,60	Very High
	P				4	4	8			
	CP						0			
	TP						0			
	STP						0			
57	SP	5	5				10	21	4,20	Very High
	P			4	4		8			
	CP					3	3			
	TP						0			
	STP						0			
58	SP	5	5				10	21	4,20	Very High
	P				4	4	8			
	CP			3			3			
	TP						0			
	STP						0			
59	SP	5	5			5	15	22	4,40	Very High
	P			4			4			
	CP				3		3			
	TP						0			
	STP						0			
60	SP	5	5	5			15	21	4,20	Very High
	P						0			
	CP				3	3	6			
	TP						0			
	STP						0			
61	SP	5	5	5			15	22	4,40	Very High
	P					4	4			
	CP				3		3			
	TP						0			
	STP						0			
62	SP	5	5	5			15	22	4,40	Very High
	P				4		4			
	CP					3	3			
	TP						0			
	STP						0			
63	SP	5	5	5			15	22	4,40	Very High

	P				4		4			
	CP					3	3			
	TP						0			
	STP						0			
64	SP	5	5	5			15	21	4,20	Very High
	P						0			
	CP				3	3	6			
	TP						0			
	STP						0			
65	SP	5	5	5			15	21	4,20	Very High
	P					4	4			
	CP						0			
	TP				2		2			
	STP						0			
66	SP	5	5	5			15	21	4,20	Very High
	P					4	4			
	CP						0			
	TP				2		2			
	STP						0			
67	SP	5	5				10	20	4,00	High
	P			4		4	8			
	CP						0			
	TP				2		2			
	STP						0			
68	SP	5	5	5			15	23	4,60	Very High
	P				4	4	8			
	CP						0			
	TP						0			
	STP						0			
69	SP	5	5				10	19	3,80	High
	P			4			4			
	CP					3	3			
	TP				2		2			
	STP						0			
70	SP	5	5	5		5	20	24	4,80	Very High
	P				4		4			
	CP						0			
	TP						0			
	STP						0			
71	SP	5	5				10	20	4,00	High
	P			4		4	8			
	CP						0			
	TP				2		2			
	STP						0			
72	SP	5	5	5			15	22	4,40	Very High
	P					4	4			
	CP				3		3			
	TP						0			
	STP						0			
73	SP	5	5			5	15	21	4,20	Very High
	P			4			4			
	CP						0			
	TP				2		2			

	STP						0			
74	SP	5	5	5			15	23	4,60	Very High
	P				4	4	8			
	CP						0			
	TP						0			
	STP						0			
75	SP	5	5	5			15	23	4,60	Very High
	P				4	4	8			
	CP						0			
	TP						0			
	STP						0			
76	SP	5	5	5		5	20	24	4,80	Very High
	P				4		4			
	CP						0			
	TP						0			
	STP						0			
77	SP	5	5	5		5	20	24	4,80	Very High
	P				4		4			
	CP						0			
	TP						0			
	STP						0			
78	SP	5	5				10	21	4,20	Very High
	P			4		4	8			
	CP				3		3			
	TP						0			
	STP						0			
79	SP	5	5				10	19	3,80	High
	P			4			4			
	CP					3	3			
	TP				2		2			
	STP						0			
80	SP	5	5	5			15	20	4,00	High
	P						0			
	CP					3	3			
	TP				2		2			
	STP						0			
81	SP	5	5				10	21	4,20	Very High
	P			4		4	8			
	CP				3		3			
	TP						0			
	STP						0			
82	SP	5	5				10	20	4,00	High
	P			4		4	8			
	CP						0			
	TP				2		2			
	STP						0			
83	SP	5	5				10	19	3,80	High
	P			4			4			
	CP					3	3			
	TP				2		2			
	STP						0			
84	SP	5	5	5			15	23	4,60	Very High

No.										
	P				4	4	8			
	CP						0			
	TP						0			
	STP						0			
85	SP	5	5				10	21	4,20	Very High
	P				4	4	8			
	CP			3			3			
	TP						0			
	STP						0			
86	SP	5	5			5	15	22	4,40	Very High
	P			4			4			
	CP				3		3			
	TP						0			
	STP						0			
87	SP	5	5				10	20	4,00	High
	P			4		4	8			
	CP						0			
	TP				2		2			
	STP						0			
88	SP	5	5	5			15	23	4,60	Very High
	P				4	4	8			
	CP						0			
	TP						0			
	STP						0			

No.										
89	SP	5	5	5		5	20	24	4,80	Very High
	P				4		4			
	CP						0			
	TP						0			
	STP						0			
90	SP	5	5	5		5	20	22	4,40	Very High
	P						0			
	CP						0			
	TP				2		2			
	STP						0			
91	SP	5	5	5			15	22	4,40	Very High
	P					4	4			
	CP			3			3			
	TP						0			
	STP						0			
92	SP	5	5				10	19	3,80	High
	P			4			4			
	CP					3	3			
	TP				2		2			
	STP						0			
93	SP	5	5			5	15	23	4,60	Very High
	P			4	4		8			
	CP						0			
	TP						0			
	STP						0			
94	SP	5	5	5			15	23	4,60	Very High
	P				4	4	8			
	CP						0			
	TP						0			

ID	Type						Sum	Total	Mean	Category
	STP						0			
95	SP	5	5				10	20	4,00	High
	P				4		4			
	CP			3		3	6			
	TP						0			
	STP						0			
96	SP	5	5				10	22	4,40	Very High
	P			4	4	4	12			
	CP						0			
	TP						0			
	STP						0			
97	SP	5	5				10	20	4,00	High
	P			4			4			
	CP				3	3	6			
	TP						0			
	STP						0			
98	SP	5	5				10	19	3,80	High
	P						0			
	CP			3	3	3	9			
	TP						0			
	STP						0			
99	SP	5	5				10	19	3,80	High
	P						0			
	CP			3	3	3	9			
	TP						0			
	STP						0			
100	SP	5	5				10	19	3,80	High
	P						0			
	CP			3	3	3	9			
	TP						0			
	STP						0			
101	SP	5	5				10	21	4,20	Very High
	P			4		4	8			
	CP				3		3			
	TP						0			
	STP						0			
102	SP	5	5				10	21	4,20	Very High
	P			4		4	8			
	CP				3		3			
	TP						0			
	STP						0			
103	SP	5	5				10	20	4,00	High
	P			4			4			
	CP				3	3	6			
	TP						0			
	STP						0			
104	SP	5					5	19	3,80	High
	P		4			4	8			
	CP			3	3		6			
	TP						0			
	STP						0			
105	SP	5	5				10	17	3,40	High
	P			4			4			

	CP				3	3				
	TP					0				
	STP					0				
106	SP					0	17	3,40	High
	P	4	4	4		12			
	CP			3		3			
	TP			2	2				
	STP				0				
107	SP	5				5	18	3,60	High
	P		4	4		8			
	CP			3		3			
	TP			2	2				
	STP				0				
108	SP	5		5		10	20	4,00	High
	P		4			4			
	CP			3	3	6			
	TP				0				
	STP				0				
109	SP	5		5		10	20	4,00	High
	P		4			4			
	CP			3	3	6			
	TP				0				
	STP				0				
110	SP	5		5		10	20	4,00	High
	P		4			4			
	CP			3	3	6			
	TP				0				
	STP				0				
OVERALL AVERAGE								**4.22**	**VERY HIGH**

Note: SP: Very important, P: Important, CP: fairly important, TP: Not important,
     STP: Very unimportant

The Responses of Respondent and
The Feasibility of Learning Materials which On Going

NO	ANSWER	RESPONDEN					ANNOTATION			
		1	2	3	4	5	AMOUNT	TOTAL	AVERAGE	CATEGORY
1	SS						0	16	3,20	Fairly High
	S			4			4			
1	KS	3	3		3	3	12			
	TS						0			
	STS						0			
2	SS						0	17	3,40	High
	S			4	4		8			
	KS	3	3			3	9			
	TS						0			
	STS						0			
3	SS						0	12	2,40	Low
	S						0			
	KS	3		3			6			
	TS		2		2	2	6			
	STS						0			
4	SS						0	16	3,20	Fairly High
	S			4			4			
	KS	3	3		3	3	12			

No	Item						Total	N	Mean	Category
	TS						0			
	STS						0			
5	SS						0	14	2,80	Fairly High
	S						0			
	KS	3	3	3		3	12			
	TS				2		2			
	STS						0			
6	SS						0	15	3,00	Fairly High
	S	4					4			
	KS		3	3	3		9			
	TS					2	2			
	STS						0			
7	SS						0	16	3,20	Fairly High
	S			4			4			
	KS	3	3		3	3	12			
	TS						0			
	STS						0			
8	SS						0	12	2,40	Low
	S						0			
	KS		3	3			6			
	TS	2			2	2	6			
	STS						0			
9	SS						0	14	2,80	Fairly High
	S						0			
	KS	3	3		3	3	12			
	TS			2			2			
	STS						0			
10	SS						0	16	3,20	Fairly High
	S	4					4			
	KS		3	3	3	3	12			
	TS						0			
	STS						0			
11	SS						0	12	2,40	Low
	S						0			
	KS	3	3				6			
	TS			2	2	2	6			
	STS						0			
12	SS						0	16	3,20	Fairly High
	S					4	4			
	KS	3	3	3	3		12			
	TS						0			
	STS						0			
13	SS						0	16	3,20	Fairly High
	S	4					4			
	KS		3	3	3	3	12			
	TS						0			
	STS						0			
14	SS						0	17	3,40	High
	S	4			4		8			
	KS		3	3		3	9			
	TS						0			
	STS						0			
15	SS						0	15	3,00	Fairly High

	S						0			
	KS	3	3	3	3	3	15			
	TS						0			
	STS						0			
	SS						0	12	2,40	Low
16	S						0			
	KS		3	3			6			
	TS	2			2	2	6			
	STS						0			
17	SS						0	16	3,20	Fairly High
	S	4					4			
	KS		3	3	3	3	12			
	TS						0			
	STS						0			
18	SS						0	15	3,00	Fairly High
	S			4			4			
	KS	3	3		3		9			
	TS					2	2			
	STS						0			
19	SS						0	12	2,40	Low
	S						0			
	KS	3			3		6			
	TS		2	2		2	6			
	STS						0			
20	SS						0	13	2,60	Fairly High
	S						0			
	KS		3	3		3	9			
	TS	2			2		4			
	STS						0			
21	SS						0	18	3,60	High
	S	4			4	4	12			
	KS		3	3			6			
	TS						0			
	STS						0			
22	SS						0	16	3,20	Fairly High
	S			4			4			
	KS	3	3		3	3	12			
	TS						0			
	STS						0			
23	SS						0	12	2,40	Low
	S						0			
	KS	3	3				6			
	TS			2	2	2	6			
	STS						0			
24	SS						0	13	2,60	Fairly High
	S						0			
	KS	3		3		3	9			
	TS		2		2		4			
	STS						0			
25	SS						0	15	3,00	Fairly High
	S				4		4			
	KS	3		3		3	9			
	TS		2				2			

No										
	STS						0			
26	SS						0	15	3,00	Fairly High
	S			4			4			
	KS	3	3		3		9			
	TS					2	2			
	STS						0			
27	SS						0	13	2,60	Fairly High
	S						0			
	KS	3		3		3	9			
	TS		2		2		4			
	STS						0			
28	SS						0	14	2,80	Fairly High
	S						0			
	KS	3	3		3	3	12			
	TS			2			2			
	STS						0			
29	SS						0	16	3,20	Fairly High
	S					4	4			
	KS	3	3	3	3		12			
	TS						0			
	STS						0			
30	SS						0	14	2,80	Fairly High
	S						0			
	KS	3		3	3	3	12			
	TS		2				2			
	STS						0			
31	SS						0	14	2,80	Fairly High
	S						0			
	KS	3	3	3		3	12			
	TS				2		2			
	STS						0			
32	SS						0	12	2,40	Low
	S						0			
	KS	3			3		6			
	TS		2	2		2	6			
	STS						0			
33	SS						0	11	2,20	Low
	S						0			
	KS	3					3			
	TS		2	2	2	2	8			
	STS						0			
34	SS						0	16	3,20	Fairly High
	S				4		4			
	KS	3	3	3		3	12			
	TS						0			
	STS						0			
35	SS						0	12	2,40	Low
	S						0			
	KS		3		3		6			
	TS	2		2		2	6			
	STS						0			
36	SS						0	12	2,40	Low
	S						0			

No										
	KS		3		3		6			
	TS	2		2		2	6			
	STS						0			
37	SS						0	16	3,20	Fairly High
	S					4	4			
	KS	3	3	3	3		12			
	TS						0			
	STS						0			
38	SS						0	10	2,00	Low
	S						0			
	KS						0			
	TS	2	2	2	2	2	10			
	STS						0			
39	SS						0	9	1,80	Low
	S						0			
	KS						0			
	TS	2		2	2	2	8			
	STS		1				1			
40	SS						0	9	1,80	Low
	S						0			
	KS						0			
	TS	2		2	2	2	8			
	STS		1				1			
41	SS						0	16	3,20	Fairly High
	S				4		4			
	KS	3	3	3		3	12			
	TS						0			
	STS						0			
42	SS						0	18	3,60	High
	S	4	4			4	12			
	KS			3	3		6			
	TS						0			
	STS						0			
43	SS						0	18	3,60	High
	S	4		4		4	12			
	KS		3		3		6			
	TS						0			
	STS						0			
44	SS						0	12	2,40	Low
	S						0			
	KS			3	3		6			
	TS	2	2			2	6			
	STS						0			
45	SS						0	16	3,20	Fairly High
	S					4	4			
	KS	3	3	3	3		12			
	TS						0			
	STS						0			
46	SS						0	12	2,40	Low
	S						0			
	KS			3	3		6			
	TS	2	2			2	6			
	STS						0			

47	SS						0	12	2,40	Low
	S						0			
	KS			3	3		6			
	TS	2	2			2	6			
	STS						0			
48	SS						0	11	2,20	Low
	S						0			
	KS			3			3			
	TS	2	2		2	2	8			
	STS						0			
49	SS						0	14	2,80	Fairly High
	S						0			
	KS	3	3		3	3	12			
	TS			2			2			
	STS						0			
50	SS						0	16	3,20	Fairly High
	S		4				4			
	KS	3		3	3	3	12			
	TS						0			
	STS						0			
51	SS						0	11	2,20	Low
	S						0			
	KS				3		3			
	TS	2	2	2		2	8			
	STS						0			
52	SS						0	11	2,20	Low
	S						0			
	KS				3		3			
	TS	2	2	2		2	8			
	STS						0			
53	SS						0	5	1,00	Very low
	S						0			
	KS						0			
	TS						0			
	STS	1	1	1	1	1	5			
54	SS						0	12	2,40	Low
	S						0			
	KS				3	3	6			
	TS	2	2	2			6			
	STS						0			
	SS						0	12	2,40	Low
55	S						0			
	KS				3	3	6			
	TS	2	2	2			6			
	STS						0			
56	SS						0	12	2,40	Low
	S						0			
	KS			3	3		6			
	TS	2	2			2	6			
	STS						0			
57	SS						0	14	2,80	Fairly High
	S						0			
	KS	3		3	3	3	12			

No							Total	Sum	Mean	Category
	TS		2				2			
	STS						0			
58	SS						0	18	3,60	High
	S	4	4			4	12			
	KS			3	3		6			
	TS						0			
	STS						0			
59	SS						0	16	3,20	Fairly High
	S				4		4			
	KS	3	3	3		3	12			
	TS						0			
	STS						0			
60	SS						0	16	3,20	Fairly High
	S			4			4			
	KS	3	3		3	3	12			
	TS						0			
	STS						0			
61	SS						0	19	3,80	High
	S	4		4	4	4	16			
	KS		3				3			
	TS						0			
	STS						0			
62	SS						0	19	3,80	High
	S	4		4	4	4	16			
	KS		3				3			
	TS						0			
	STS						0			
63	SS						0	20	4,00	High
	S	4	4	4	4	4	20			
	KS						0			
	TS						0			
	STS						0			
64	SS						0	16	3,20	Fairly High
	S				4		4			
	KS	3	3	3		3	12			
	TS						0			
	STS						0			
65	SS						0	11	2,20	Low
	S						0			
	KS				3		3			
	TS	2	2	2	2		8			
	STS						0			
66	SS						0	10	2,00	Low
	S						0			
	KS						0			
	TS	2	2	2	2	2	10			
	STS						0			
OVERALL AVERAGE									**2.81**	**FAIRLY HIGH**

Note:SS: Very agree, S: Agree, KS: Less agree, TS: Disagree, STS: Very disagree

The Limitations of The Study
Design of learning materials based on Multimedia to increase the language ability of autism childrenhas been compiled accordance with the stages that have been set previously.However, it does not mean that the model of

learning materials based on Multimediawhich has been produced was perfect,but there are still many lack due to research limitations.

The limitations in development learning materials model, among others : 1) an imbalance between the ratio of the children and the number of teachers causing the learning process in the classroom was very slow, 2) different levels of the children's ability in one group of learning causes the quality of teacher's teaching is not focused, 3) teachers still familiar with the previous learning materials, so it takes more time to understand the recent developed model, 4) the lack of books and sources related to developing language skills of autism children, 5) there was no diagnosis evidence from psychologists about disorder level of autism children.

The advantages : 1) design of learning materials based on Multimedia to increase the language ability of autism childrenhas been developed accordance with the needs and feasibility analysis and also according to the rules of 2013 Curriculum comprehensively, 2) the learning model was the first model that produced for autism children which can integrate between the Student Book and Interactive Multimedia, and 3) the learning material model as prototype of learning materials which directed to guide autism children to be active in learning and to improve other competencies, besides to mastery language of autism children.

Conclusion:-
Based on the exposure of objectives study, results of study and data analysis that has been performed then it can be concluded, they were :
1. The general description about objective condition of language learning in 2013 Curriculum which conducted in SLB Mandara 1 and 2, there was still a gap between needs analysis with the condition analysis. This can be proven from the result of document review that conducted through observation, questionnaires and interviews.
2. The design of learning materials based on Multimedia to increase the language ability of autism children based from the children's need toward material that suitable with the children's competence which was obtained through a questionnaire quiz from children/teacher. Questionnaires consist of 110 questions that divided into 6 groups,namely : a) the type of information, b) language skills strategy, c) language group, d) theme and subtheme of learning , e) learning activities, f) learning evaluation.The result of the questionnaire needsshows a "**very high**" level of need with an overall average score of 4.22. It shows that the model design of learning materials that the researchers offer was very feasible to use for autism children because it based from the needs of children.

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