International Journal of Learning and Change

Stimulating creative thinking on autism students through teacher questions: 24 functions of questions

Astri Widyaruli Anggraeni*

Indonesian Language Education Program,
State University of Malang, Indonesia
Email: astriwidyaruli@unmuhjember.ac.id
*Corresponding author

Suparno, Abdul Syukur Ibrahim and Martutik

Indonesian Language Education Study Program,
Faculty of Letter,
State University of Malang, Indonesia
Email: suparno.fs@um.ac.id
Email: abdul.syukur.fs@um.ac.id
Email: martutik.fs@um.ac.id

Abstract: The purpose of this study is to investigate how autism teacher questions affect classroom discourse. This research presents an analysis of various autism teacher questions and their function in learning to stimulate autism students with creative speech. This study identifies as many as 24 question functions played, namely asking for information, asking questions, knowing students' knowledge, opening conversations, relationships, greetings, clarification, praise, offer, request, confirmation, affirmation, apology, reprimand, astonishment, asking permission, asking for attention , suggestions, commands, invitations, prohibitions, ridicule, monological discourse, and threats. Closed questions dominate conversation. As a result, autism students can produce creative speech and are very good at remembering facts, but they need time lag when asked questions that require high thinking. Classes become interactive with good questions and responses from teachers and students with autism.

Keywords: creative; questions; teacher; students; autism.

Biographical notes: Astri Widyaruli Anggraeni completed her Magister program at the State University of Gadjah Mada, Faculty of Cultural Science, Linguistic Program and studying at the Doctoral program at the State University of Malang. She is currently teaching at the Faculty of Teacher Training and Education, State University of Muhammadiyah Jember. She is active in teaching pragmatic, semantic and linguistic.

Suparno completed his Doctoral program at the State University of Indonesia. He is currently teaching at the Department of Indonesian Language Education, State University of Malang. He is active in teaching syntax, linguistic, fonologi and discourse analysis.

Abdul Syukur Ibrahim completed his Doctoral program at the State University of Airlangga. He is currently teaching at the Department of Indonesian Language Education, State University of Malang. He is active in teaching sosiolinguistic, pragmatic and language philosophy.

Martutik completed his Doctoral program at the State University of Malang. He is currently teaching at the Department of Indonesian Language Education, State University of Malang. He is active in educational research methods, discourse analysis and intensive reading.

1   Introduction

Teaching is essentially the activity of teachers providing stimulus to students to learn and be creative. In this 21st era, there are many movements that prioritise creativity as an important element. One of them is the 4C (critical thinking, communicative, collaboration, and creativity) which has the goal of realising learning in the 21st era for every student in the entire country and even throughout the world (P21 Patnership for 21st Century Learning, 2009). In learning, one of the efforts to increase the creativity of teachers and students can be done through questions. Three question features can serve as themes in classroom research viewed through the context of questions, the content of questions, and responses or reactions that must be asked by teachers and students (Rosenshine, 2010). The type of questions asked by the teacher and the way the teacher asks questions affect cognitive processes in students (Chin, 2007).

   To answer the question function, this study uses descriptive qualitative by providing a description of the question function that occurs in class interactions through psychopragmatic studies. What is interesting in this study is when teacher questions are asked to students with autism disorders. We face major challenges in achieving the right creative level when we are on the measurement of the development of linguistic or pragmatic functions among normal children and autism children. This challenge is illustrated when referring to 'concrete thinking' in children with autism in measuring the creative level of autism children. A question arises, what are the questions contained in the teacher's question that can stimulate the creative thinking of autism students?

1.1   Function of teacher questions

In Indonesia, in 2005 the government passed Law No. 14 of 2005 concerning teachers and lecturers as one of the strategic steps to improve the competence of teachers and lecturers through teacher certification programs to meet the standards of professionalism criteria. For this, in 2007 the government issued a set of teacher professionalism standards that focused on pedagogical, professional, personal, and social competencies.

A related issue regarding special education teacher certification is that special education teachers are assessed to the same standard as public school teachers. This certainly must be different, not only seen through unique individual characteristics but also in curriculum formulation. This research will later contribute to the competence of teachers in asking questions by knowing the psychology of autism students and can also be used as a reference in curriculum planning in accordance with the acquisition of autism students' language and their needs.

According to the functional paradigm, questions are seen as a tool of social interaction, as the main communication tool in learning between teachers and students. This view shows the function of the question as an instrument by paying attention to what a person will do in a particular speech situation. Functional pragmatic characterisation seen through its function and relevance explains that an interpretation depends on understanding the speaker's attitude towards the topic, context or participants (Ojwang, 2016). Teacher questions are the main feature in classroom interactions (Wellington and Osborne, 2001). The teacher uses questions to frame and guide students in class during learning and to give various possibilities in the presence of initation – response – feedback (IRF) exchange. The characteristics of the teacher's questions have a contribution in stimulating productive thinking in students (Chin, 2006).

Initial research has confirmed that there are six functions of teacher questions that can influence class discourse, namely the function of student knowledge, requests, monologue discourse, clarification, relationships, and context interaction. Most of them are closed questions. The findings show that students are very successful at remembering facts, but still have difficulty when given higher thinking. These six question categories give them the right to speak and learn in the learning process (Dohrn and Dohn, 2018). Siemund (2017) examines questions of the social value of information by supporting the Levinson model with polar interrogative results exceeding the number of interrogative constituents in oral data both directly or indirectly with the function of information, request, confirmations, rhetorical, offer, permission, suggestions, initiating discourse, invitations, reprimands, back channelling, threats, greeting, surprise, apology, and grabbing attention. These findings urge us to better know how to improve and encourage students to be more creative thinking in classroom learning by considering other factors that might influence it, especially in autism students. It is clear that special education or special education teachers have a major and very large role in providing transition services for students with special needs (Blanchett, 2001). Teacher questions that correspond to the function to be conveyed can help autism students produce creative speech.

1.2   Stimulation of creative thinking

In the realm of education, creativity is seen as a special approach to learning that involves 'creative' teaching and 'creative' learning strategies. Physical structure, teacher quality, and school administration are factors in scaffolding children's creativity (Ucus and Acar, 2019); creativity is important in children's education (Alkuş and Olgan, 2014); creative processes are supported by social factors, influenced by culture, and achieved in a collaborative way (Jalongo, 2003). We found several creative utterances produced by autism students during learning. Children are an extraordinary source for producing creativity products. Based on research that has been done (Ravet, 2018) students and tutors understand the features of autism that occur are difficulty understanding

social situations, challenges regarding language and communication, making friends, connecting with others, eye contact, and interests. Children must continue to be given stimulus to have creative thoughts and expressions and creativity products to help them become more independent and confident (Huang and Szente, 2014). We found extraordinary creative speech from autism students in learning in this class. This response occurs because of the excellent and appropriate teacher position in providing stimulus through questions posed to autism students. The findings of research conducted (Dababneh et al., 2010) that teachers have a basis for developing a creative classroom environment.

In implementing the learning process, the teacher uses questions that are well structured and posed in a way that is appropriate to the cognitive and abilities of students, usually appearing at the beginning, middle, and end of learning. At the beginning of learning teachers usually ask opening questions such as asking attendance, asking about activities, asking learning material that has been learned, and asking how far students mastered the past material. In the middle of learning, teachers usually ask questions to find out the clarity or understanding of students in receiving material and provide opportunities for students to ask questions. At the end of the lesson, the teacher clarifies the clarity about the material that has been obtained and the clarity about the homework given. Most of the teacher's activities in teaching are filled with questions. One indicator to see the quality of a teacher can be seen through the way the teacher asks questions to students and variations of these questions. Teachers must be able to use appropriate language to be able to help learning, and students have the right to express their own thoughts (Huang and Szente, 2014). The teacher must have a good understanding of the subject matter in order to be able to ask according to students' abilities, the teacher should have pedagogical skills in compiling and developing questions, can work together with students when using a series of questions (Chin, 2007). Seeing this fact, it is not excessive if the questioning skill is one of the basic teaching skills that must be mastered by a teacher.

2   Research methods

2.1   Research approach

The method used in this research is descriptive qualitative using a psychopragmatic approach. This study includes a new study in looking at psychological aspects based on the implied intent of various speech acts delivered by speakers in various speech contexts. Psychopragmatics is a combination of psychology and pragmatic. The psychological aspect that triggers spoken and written speech of speakers is called psychopragmatics (Rahmat et al., 2019). Psychopragmatics is related to mental use of language (Mahmood and Hassan, 2018). The teacher must have good psychology and pragmatic abilities in order to be able to take the right steps in carrying out learning activities in class. In addition, the psychology of autism students themselves must be considered given that autism students have unique and diverse personalities. The analysis was carried out by identifying the autism teacher's questions functionally in asking questions to autism students, along with observing the responses of each autism student.

2.2   Participant settings

In this article, the Autis Extraordinary School (SLB) of the State University of Malang, Malang, Indonesia is used as a research site. The term use of the word laboratory is made so that students can easily practice teaching according to scientific fields, and researchers can conduct research according to their expertise. The Autism Laboratory SLB has been used as a study/pilot centre for nearby autism schools/institutions, and was awarded as the best autism school in Malang, East Java, Indonesia. In addition, the Autism Laboratory School has its own characteristics and innovations in curriculum development under the auspices of the State University of Malang, Indonesia. This research focuses on elementary school (SD) which consists of two autism teachers in the academic class, one teacher as the main teacher and the other as a co-teacher. We focus on the main teacher because it has a very large role during learning and communicates more actively with autism students. Academic class means that one class contains several autism students with grades 1-6 elementary school, age and type of diversity that are diverse and already have better verbal ability than other classes. The academic class consists of six students, five male students and one female student. The main teacher is Mrs. VV (initial name), a teacher who has both academic and non-academic skills (vocational skills), a Bachelor's of Psychology graduate. Data is taken on learning activities in the even semester as many as eight meetings. Our initial names are used in this paper to protect the anonymity of the participants.

2.3   Data collection

We visited the school for four weeks to observe the learning process in class. There are four lessons we have observed, namely Indonesian, mathematics, Pkn, and regional languages (Javanese). We use two cameras, the main camera which is connected to an external microphone worn by the VV mother so that the speech issued is recorded clearly. The second camera records the sound and class atmosphere of the speech and attitude of autism students. This second camera is placed in the corner of the classroom so that autism students do not feel disturbed, thus getting natural data. Data comes from field notes and video recordings, then transcribed according to focus. The disadvantage is that information about intonation, humour and surprise cannot be reproduced in transcription. But we can clarify through the use of punctuation and explain in detail some of the non-verbal actions of teachers and autism students.

2.4   Data analysis

What question functions emerge from teacher questions that can stimulate the creative thinking of autism students developed and tested. By seeing the teacher's speech as a stimulus and the speech of autism students as a response, we track how the question affects the creative speech process of autism students. Special attention is given at 60 seconds after each question asked by the teacher. Data is coded based on 24 domain codes that show the different functions of teacher questions. In classifying autism student responses, we adopt the findings (Chin, 2006) by looking at cognitive processes in answering teacher questions. Creative speech is indicated by autism students' speech which takes place naturally in the actual speech situation.

3 Results

We begin first by describing the design features of the autism teacher's questions, after that we move on to the functions contained in the autism teacher's questions. The questions are further analysed based on the questioner and the thing asked, the open-closed questions, and the cognitive level that demands the response of autism students.

3.1 Question design

3.1.1 Distribution of questions based on the questioner and the question asked

The results obtained that in the learning process in the academic class there are 678 questions. From the results of the distribution of questions totalling 678 questions, it is known that the average number of questions raised by teachers is 672 questions (99%), while the average number of questions asked by autism students is only six questions (1%). The teacher has a very big role in classroom interactions. In accordance with opinions (Van Booven, 2015) this happens because students are expected to show respect for the teacher and not dominate in conversation in class. The teacher has power in class interaction. In the autism class this is clearly different, because one of the characteristics of autism is that it cannot interact properly. Meanwhile, questions raised by autism students are usually only emphasised by clarifying questions from questions asked by the teacher, namely by repeating the questions posed by the teacher. In accordance with the opinion of Hobson and Hobson (2007) that autism children tend to imitate others. This finding shows that autism students rarely ask questions while in learning, shown from the number of questions asked by autism students by only six questions (1%).

Questions asked by teachers in learning are still broken down into questions by classifying them based on categories of people, activities, numbers, circumstances, time, and place (see Figure 1).

Figure 1 Teacher's questions are based on what was asked (see online version for colours)
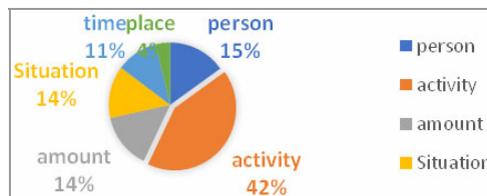
Autism teachers' questions during the lesson were mostly related to questions in the form of activities, which were 285 (42%). At the beginning of learning to build a good and vibrant mood, the teacher asks about the activities carried out by autism students before going to school, for example asking about activities at breakfast, activities when going to school, or activities during school holidays. This question can stimulate the ability of autism students to be able to tell stories well and coherently about the activities that have been carried out. Questions about people occupy the second position most, as many as 102 (15%). This form of questioning is more aimed at autism students to recognise

people around them. Autism students can talk about family, friends, neighbours, relatives, and even their own friends from the stimulation of the question with the question 'who'. Questions in the category of numbers as much as 98 (14%) appear more when there are questions about learning material, in this case more appearing in mathematics or questions in the form of 'how much'. Questions by asking the situation as many as 93 (14%) arise when the teacher asks news, class situation, the condition of friends, relatives, neighbours, parents, and the conditions experienced by autism students (injured, sad, happy, tantrum, silent). Questions about time with as many as 74 (11%) questions arise when the teacher stimulates the speech of autism students by asking about the time (day and date when learning takes place) and some questions about the understanding of autism students of the text in the reading books. The next category is where as many as 26 (4%) are asked by teachers to stimulate the memory and storytelling ability of autism students about the activities they have done.

These findings reveal that teacher questions ask more about non-academic activities experienced by autism students. These results support the opinion that non-academic activity questions are often used for the benefit of classroom management (Widodo, 2006).

Table 1   Frequency of use of questions based on question word categories

Question categories	Number of questions percentage
What	42% (n – 285)
Who	15% (n – 102)
Where	4% (n – 26)
When	11% (n – 74)
Why	14% (n – 93)
How many/much	14% (n – 98)
Total	*100% (n – 678)*

The frequency of use of the interrogative words distribution can be seen in Table 1 in the form of question words *what*, *who*, *why*, and *how* outperform interrogative words spoken by autism teachers, while interrogative words *when* and *where* lower frequency of use. The question word *what* a low-level question word and is widely used in autism students, but that does not mean that an autism student cannot answer an autism teacher's question with the use of medium-level question words, for example with question words *why* and *how* are included in the high level.

> (1) VV: "after playing, *Mas* Dn plays ball. *Mas* and beam toys. Once installed, the beams are tidied, arranged neatly, returned. Why?"
>
> Dn: (speechless) "hhhhmmmm…"
>
> VV: "after playing the equipment is tidied up. Why?"
>
> Dn: (silent while thinking, scratching his head)
>
> VV: "why? After playing, the toys must be tidied up, returned to its place so that?"
>
> Dn: "(while thinking) let … (pause) secure"
>
> (T3.1.FPk)

Data (1) shows that Dn students with a 13 years age category, 6th grade elementary school, good language skills and good psychological can respond to teacher questions in the category of *why* that can produce creative speech. The use of teacher questions is an attempt to make students more able to think, not to judge the truth of their answers (Smart and Marshall, 2013). General answer responses are usually in the form of answers *to be neat*, but Dn students answer them with answers *to be safe*. Another interesting thing found in this study is that there is a use of questions using the word *masak* which comes from Javanese *masak* which is not found in the question word literature in Indonesian. The use of the word *masak* (*is that right* in English) is found at the beginning and middle of the sentence in the teacher's question. The word *masak* has a meaning in the form of rejection or denial.

> (2) VV: "oooh AA which became a train, where are you going? AA?"
>
> AA: "hhhmmmm… Want to uuughhh… Batu"
>
> VV: "Looh to Batu take the train?"
>
> AA: (Head nodding)
>
> VV: "*masak*? If you take the train, where do you usually go to AA?"
>
> AA: "uuughhhh… hmm… Bandung"
>
> (T6.2.FPMa)

The use of question words *masak* in data (2) as a form of question in asking for information or confirmation to AA who is 12 years old, 4th grade, has imperfect language and psychological skills by asking for confirmation that it is true that he will go to Batu by train. The context is to get to Batu, you cannot use the train, because there is no train line. Furthermore, the response spoken by autism students spontaneously answered the word Bandung as a destination that can use trains to get to the area. The emergence of creative words in the word Bandung is due to the storage of memories or experiences that autism students have gained, namely the experience of using the train to the city of Bandung. This is in line with several opinions using the term retrospective, where this component supports the coding and stimulus process in recognition and memory (Smith and Bayen, 2004).

3.1.2   *Distribution of questions based on open-ended questions*

Based on the analysis of the types of closed-open questions it can be seen that 622 questions (92%) are closed questions and 56 (8%) are open-ended questions asked by teachers to find out students' understanding of autism and stimulate their creative speech. This distribution is proposed based on the possible answers to the questions of teachers who expect responses in the form of creative speech from autism students. Frequency of use of questions seen based on closed and open questions can be seen in Figure 2.

Most of the questions asked by autism teachers are closed questions, where the teacher demands definite and certain answers from those asked. Similar to the research conducted (Oktaviana et al., 2016) which shows that teachers use closed questions for stimulate students to think convergently and recall previous material. In autism students only get 8% open questions during learning. According to Blosser (2000) with open-ended questions being said can make students express the reasons for their thinking, conclude, identify, formulate hypotheses, and make judgments about their assessment

standards. Open questions in this study only reach the step of expressing the reasons according to the thinking of autism students, deducing what is obtained and identifying about an object.

Figure 2   Frequency of using closed-ended questions (see online version for colours)
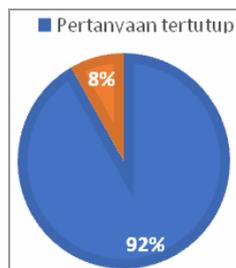
3.1.3   Distribution of questions based on cognitive levels of questions

Based on the results of data analysis when viewed from Bloom's taxonomy it is known that the average number of questions with a cognitive level of remembering is 587 questions (87%), comprehension questions are 58 questions (8%), application questions are 33 questions (5%), analysis questions are 0%, evaluation questions are 0%, and create questions are 0%. Data can be seen in Table 2.

Table 2   Results of analysis of teacher questions on the cognitive domain

Teacher's question	Number of teachers asking questions	Percentage
C1 (remembering)	587	86%
C2 (understand)	58	8%
C3 (apply)	29	4%
C4 (analyse)	4	1%
C5 (evaluate)	0	0%
C6 (create)	0	0%
Total	*678*	*100%*

Most of the questions asked by teachers are questions at low cognitive levels (memorising and remembering) and there are several questions in the form of applications. Based on Bloom's revised taxonomy that teachers can decide and improve curriculum and instruction in learning through this taxonomy (Krathwohl, 2002). Widodo (2006) considers that high-level cognitive questions contribute better in the learning process. Meanwhile, the results of the analysis of the types of knowledge dimension questions are in Table 3.

Table 3 shows the number of types of teacher questions during learning based on Bloom's revised taxonomic knowledge dimension. It is seen from the table that questions on the dimension of factual knowledge level are 327 (48%), conceptual questions 212 (31%), procedural questions 133 (20%), and metacognitive questions 6 (1%). The teacher asks these questions to test the students' knowledge, learn the material, and know the level of children's ability according to their class (Kawalkar and Vijapurkar,

2013). In line with an autism teacher's requirement to be able to adjust questions to autism students, because they have different abilities and needs.

Table 3 Teacher's questions on revised Bloom's taxonomic knowledge dimensions

Teacher's questions in the cognitive domain	Number of teacher questions	Percentage
Factual	327	48%
Conceptual	212	31%
Procedural	133	20%
Metacognitive	6	1%
Total	*678*	*100%*

3.2 The function of teacher questions

From some question functions, the function of requesting information is the most function found, which is as much as 24%. The second most common function is the question function as a question asking function of 18%. The function of knowing students' knowledge is as much as 12%, similar to the function as opening a conversation. The function found is also a question function to maintain the relationship, which is 10%. Another 7% results for the question function as regards. The clarification function has a 3% result. A similar result of 2% was found in the function of questions as praise and offer. The functions of requests, confirmations, confirmations, apologies, reprimands, amazement, asking permission, asking for attention, suggestions and orders have the same result of 1%. Five other functions that have a result of 0% of the total 678 questions, namely the function of invitation, prohibition, ridicule, monological discourse, and threats. More complete, the function of autism teacher questions can be seen in Table 4.

Table 4 Function of autism teacher questions in class

Function	Number of teacher question functions	Percentage	Example
Information	162	24%	What day is it now? What date?
Asking	122	18%	What are the answers to four-legged animals?
Student knowledge	82	12%	Indeed, how do you become a pilot?
Opening conversation	79	12%	Are you ready to study?
Relationship	65	10%	Loh, what's with the hands?
Regards	45	7%	How are you all?
Clarification	18	3%	Come on, when you finish offering the wares, what do you say?
Praise	16	2%	*Mas* BL who drew this yourself?
Offer	12	2%	Should the VV mother get the ruler for you?

Table 4   Function of autism teacher questions in class (continued)

Function	Number of teacher question functions	Percentage	Example
Request	10	1%	Whether *Mas* Dn have an eraser?
Confirmation	8	1%	You know that? Yes?
Affirmation	7	1%	What can we do if we are fasting? Yesterday was taught at the Ramadhan hut, what can I do if I don't fast?
Apology	7	1%	Oh sorry mother VV did not hear, which one is not there?
Reprimand	6	1%	How do you write that?
Astonishment	6	1%	Hah, what? Continue here? Why?
Ask for permission	5	1%	Can VV mother close the door?
Ask attention	5	1%	Why is this looking out?
Suggestion	5	1%	If you brush your teeth clean, so it's white, huh?
Command	5	1%	IM, can you write it on the whiteboard?
Invitation	3	0%	Who wants to pray with VV mother?
Prohibition	3	0%	Can you really mock a friend?
Ridicule	3	0%	*Masak Mbak* IM this big is still being fed?
Monological discourse	3	0%	Loh, it's time to rest. Shall we continue later? First play with friends. Can't be naughty huh?
Threat	2	0%	Tomorrow morning VV kiss the hair is fragrant or not huh?

The results of data analysis in this study indicate that most of the questions used in classroom interactions function to request or search for information (24%) contained in almost all teacher questions. According to the opinion (Tsui, 2002) that the question sentence is used primarily to find information and clarification. From the function of this question, the responses given by autism students differ, such as the example spoken by students with the initials Sf at the age of 12 years, grade 4 elementary school students who have good language skills and psychological conditions better than other autism students. The success of pragmatic competence depends on contextually dependent speech production (Padilla Cruz, 2018). According to Mustajoki (2012) which uses the term *mental world* regarding linguistic abilities, cultural background, original patterns, relationships with interlocutors, emotional, physiological, situational, and circumstances that are important factors in communication interactions. Such is the case in the conversation in learning in this class about the variety of functions of the questions that arise, all depending on the underlying context. This function, for example, occurs in the context of conversation when the teacher gives questions about parts of the plant. Following the conversation:

(3) VV: "come on, what are some parts of the plant?"

Sf: "root … hmmmm the stem? Flower..." (soft answer)

VV: "the green one? Guess what?"

Sf: "grass" (murmured)

VV: "the plant part can be grass *toh.* What?"

Sf: "flower?"

VV: "flower?"(high pitch)

Sf: "the stem?"

VV: "hmmmm… The stem? Leaf *Mas* Sf, the green part of the plant leaves"

(T4.2.FPMi)

In the data (3) Mrs. VV repeats the questioning strategy that is being done to autism students so that students understand what is asked. Sf responded with the word answer *grass* when asked about the parts of plants that are green. Continues with the answer *stem.* This creative process is used to state or give an explanation to Mrs. VV. Mrs. VV gives stimulus to Sf by giving the word clue *green* to give the answer she really wants in the form of a word *leaf.* In Sf knowledge, grass and stems have a green colour and are part of plants. Although Sf's answer does not match the answer he wants, but this is one of the strategies of autism students in responding to answers by developing the topic of speech with associative words that *grass* has variations so that Sf raises the word *grass* as part of a green plant and mentions *stem* as part of a green plant. This result is similar to other functions in terms of the requesting function, both asking for clarification (3%), request (1%), confirmation (1%), affirmation (1%), apology (1%), asking permission (1%), asking for attention (1%), and knowing students' understanding (12%). A child tries to use various strategies to express intentions and achieve the desired communication goals (Werdiningsih, 2015).

The second highest percentage of usage is the function of questions asked to ask (18%). The questioning function in this class discourse is done when the speaker does not know information about something. Why is there a high percentage of conversations in this academic class? The interesting thing in this class is the pattern of interaction in the learning class, where in one academic class consists of six students with different grade levels. The teacher gives the material in accordance with the grade level of each autism student in the same class. The rotation pattern used by autism teachers is very interesting, the teacher switches to other students when they have raised questions about the material in learning to students beforehand. Here's an example of a conversation:

(4) VV: "at ten the writing like what?"

Im: (speechless)

VV: "how to write the number ten?"

Im: "ten.. ten.. (Murmuring and writing the number ten in the book)"

VV: "smart"

(The teacher left Im and turned to other students)

(T3.5.FPb)

Student responses in the form of repetition of what is asked by the teacher. Im with the age of 13 years, 5th grade elementary school, still do not have the ability and psychological good cause students can not respond perfectly. Im doing the repetition of the utterances by mentioning the number *ten* which according to Sterponi and Shankey (2014) this is done by reiterating the utterances uttered by others and done of their own volition in response to the opposite of the speaker. This function is similar to the question function as a monological discourse (0%). In other data there is a conversation where the teacher answers all the questions by himself, for example in the speech ["what do you have? Hmmm.. I have some toys for today"]. These types of questions do not require student answers, and sometimes they are ignored. This question can be categorised as a non-interactive question (Scott et al., 2006).

Other functions such as the existence of the question function as a conversation opening (12%), relationships (10%), and greetings (7%). The relationship between interlocutors has greater influence on communication than emotional factors (Mustajoki, 2012). We enter the same categories for all three functions. The function of this question is found more in non-academic questions, there are many at the beginning and end of learning. Next is the conversation that occurred in class.

> (5) VV: "this is why the hands can be like this?" (Holding hand Sf)
>
> CR: "*ngglodoki*"
>
> VV: "oh, *ngglodoki*. How come why??"
>
> CR: "said mother heat moved to cold"
>
> (T4.7.FPh)

Data (5) shows the creative speech produced by CR students, 10 years old students, grade 3 elementary school students, and has good language and psychological abilities. Students try to explain the state of their hands by producing words *ngglodoki* (peeling). He tried to reveal the cause of his hand peeling which caused by the movement of the weather. This strategy can be a specific action or behaviour carried out by autism students in responding. Sf gained prior understanding and knowledge, so that he could explain it using his own language. He uses the word *ngglodoki* as the concept of peeling off his hands. In line with what was delivered (Boeriswati, 2011) children deliver creative speech as an alternative to solving problems in communication when they have difficulty finding vocabulary that can represent the concepts they are thinking about.

Other functions include questions as praise (2%), reprimands (1%), amazement (1%), prohibitions (0%), ridicule (0%), threats (0%), bids (2%), suggestions (1%), solicitation (0%), and orders (1%) that we enter into the same category.

> (6) VV: "hmmm Bl, just keep jumping until you get tired?" (Flat tone)
>
> Bl: (jumping higher and higher)
>
> VV: "*Oalah* Bl, the mother VV meant to stop jumping! Let's go, sit here!" (High-pitched sambal holding Bl hand)
>
> (T7.3.FPth)

The function of the question as a command is shown in data (6) with a non-verbal response done by Bl students who are 7 years old, grade 1 elementary school and still do not have good language and psychological skills in carrying out the teacher's orders. Questions will be identified as an order if there is a response in the form of

implementation or rejection of the order said. In Javanese there is a meaning '*ngelulu*' which asks the interlocutor to do something but is actually a prohibition on doing something. Kunjana Rahardi (2005) states the marker characteristics of non-imperative speech can be known through the context of the background situation if the speech has the pragmatic meaning of the command *ngelulu*. Speech *ngelulu* from the teacher can be understood with the help of paralinguistic factors. Psychologically, changes in intonation spoken by the teacher can show changes in attitude used as assertiveness. In the first utterance, it is not accompanied by gestures and has a flat tone, so Bl thinks the speech is a command to keep doing what he did.

The function of 24 questions is as a way to improve the thinking ability of autism students through questions. The responses obtained by students are mostly honest and simple answers based on facts and real awareness. Teacher's reaction to student responses is more important to consider than the question itself (Hamm and Perry, 2002). This question is aimed at one of them to stimulate creative and imaginative thinking for autism students based on the experience or knowledge they already have. The type of questions asked by teachers are very important in developing student curiosity in that environment (Capraro et al., 2010).

4   Discussion

Identifying the function of questions and responses of students' answers is done in a series of questions and answers (adjacency pairs), in accordance with the opinion (Schegloff, 2007) that questions and answers are adjacency pairs. Ensuring the question function is strengthened by guiding the determination of the question function based on illocution, response, actors and context. This is what makes the question function diverse and there is a lot of conversation in the classroom. , reading, and speaking, such as Farrell and Ives (2015) who observed that in class speaking, writing and observing can contribute to teacher beliefs in class. But research that focuses on questions of autism teachers to autism students is still very limited. Next, an explanation of the creation of teacher questions in learning autism classes is explained as follows.

4.1   Question distribution: the question and the question asked, the closed-open question, and the cognitive level of the question

Most questions were only asked by teachers as many as 678 questions (99%) than 6% (1%) of questions asked by students in class. This happens because the teacher has power in the class. The highest category in the questions asked in the autism class is about activity (42%). At the beginning of learning the hardest thing a teacher must be able to do is create an atmosphere of 'mentally prepared' and 'cause attention' for students to be directed and focused on the things to be learned. VV teachers fulfil this role and do very well in developing chemistry in starting learning. The apperception activity starts with asking how the students are doing, the students' activities before going to school, singing, practicing concentration with psychomotor activities, and asking students to talk about their holidays and activities. According to Farrell (2009) questions are used to start class interactions. VV teachers need time to make autism students focus, concentrate and have a good mood. Greeting sentences using speech "come on, who today is sad? Who does

not want to learn today? Who today wants to get angry?" Successfully makes autism students suggest with the answer "no" which is their response. One of the strategies used by teachers at the beginning of learning is to ask students to talk about the activities they have done. They do it very well with the help of teacher questions to provoke their speech. In narration, autism children must be able to develop their abilities so that they can adapt their stories to their listeners (Norbury and Bishop, 2003). Autism children tend to direct interactions to their interests. They fail to develop new information topics, instead they are strong in repeating previous topics or instead they can suddenly shift topics that cannot be explained (Lam and Yeung, 2012); tend to be formal language, have a unique style of speech and alienate themselves from peers (Simmons et al., 2014).

In our opinion the cognitive level of teacher questions has a strong effect on student outcomes, but all depend on the strategies implemented in the classroom. The findings in this study also reveal that closed questions dominate classroom conversation. But do not rule out there are some open questions also found in learning autism. Why do not we try to integrate high and low questions or integrate closed and open questions in asking a question? This argument can be based on looking at the difficulty of the questions, variations (regarding how many students' answers are different and possible to be true), and complexity (how many different questions in the same question). According to Goossen (2002) open and closed questions must be balanced; and open or closed questions have great potential in supporting children's verbal reasoning (Säre et al., 2019). Agree with Walsh and Sattes (2011) that good questioning techniques will guide children to find more specific information, be able to argue and solve problems, especially by using open-ended questions. Open-ended questions aim at guiding children to debate, reason according to their opinions, explain their ideas, draw conclusions, make decisions, develop ideas and argue (Fisher, 2007). VV teacher performs a variety of strategies to make autism students able to issue their creative speech. The strategy that is widely used is the fishing strategy using image media. Actually gradually, Mrs. VV has integrated low and high questions or gradually closed and open questions. The following are given examples in class conversations.

> A: "who wants to be this?" (Point to one of the pictures that has been installed in class)
>
> B: "astronot"
>
> A: "I yes right. Where are you going??"
>
> B: "hmmm.. outer space"
>
> A: "wear what?"
>
> B: "rocket"
>
> A: "oohh rocket ride, going to space. Try tell me here (holding hand B). Come on!"
>
> B: (walk to the front of the class) "this astronot"
>
> A: "then? Rocket ride, then where it is?"
>
> B: "to the moon"
>
> A: "continue?"
>
> B: "to mars"
>
> A: "does he want to go to the sun?"

B: "no"

A: "why not?"

B: "because it's still hot"

A: "hot?"

B: "hot, like fire"

A: "ohh so he only marches to the moon?"

B: (nodding)

A: "alright, thank you Dv.."

(T8.6.Fhj)

We observe the use of the language used by VV very well, many are inducement, and he does not ask for the right answer as he wants. He allows students to imagine and think according to their ability in language. Teachers must be able to understand the students' emotional and psychological students at the time. In the context of these sentences students who have good language skills and good intelligence can explain and argue about the figure of an astronaut, the work of an astronaut, and several other reasons, such as the heat described as fire. Starting from the question who is ...? Continues to the question word ... *where ?, ... what ?, then ?, what ...?, why ...?* and ... *yes?* As a form of question words to stimulate the creative speech production of autism students. Use closed questions at the beginning of a conversation as if the teacher already knows the answers and waits for students to show what they understand (Ho, 2005). In these conversations students tend to give short answers, only a few words. Agree with Siraj-Blatchford and Manni (2008) who argue that closed questions are not authentic when the teacher knows the students' answers and tries to make the child understand the responses the teacher wants. Some of the conversations that occur in this autism class can be seen from the data that the teacher does not force autism students to respond to answers that are in accordance with what the teacher thinks, they can imagine and argue about the answers to the teacher's questions.

With the inclusion of high questions in questions teachers can promote deeper and reflective thinking (Eliasson et al., 2017). In our opinion, the questions teachers ask must be in accordance with the characteristics of autism students, because they are different from one another. Low questions tend to be asked randomly, whereas high questions tend to be asked to target students (Eliasson et al., 2017). Teachers should be more familiar with questions that encourage creative thinking rather than critical thinking (Birbili, 2013). Based on research conducted (Lee and Kinzie, 2012) in his science class, cognitive processing in questions involves growing facts or information. From the results of this study we see closed questions will help autism students to think creatively, and when combined with open questions will produce more directed reasoning at autism students. Creative thinking can be formed from a closed question that can make children think and provide arguments (Fisher, 2001). Closed questions encourage verbal reasoning skills (Säre et al., 2019).

In Indonesia the education system used is based on character education. Among systems, an education system based on compassion, hone, and foster care (*care and dedication based on love*). *Mong* or *momong* (*meaning parenting*) in Javanese. The teachers and lecturers are said to be *pamong* who have the task of educating and

teaching children with compassion. The aim is to develop students, noble character, intelligent, have skills, physically and mentally healthy so that students are independent and responsible (Wangid, 2009). Research conducted by Supriyanto (2008) which compared learning *student centred learning* (SCL) with Among systems resulted in the Among systems being more advanced and suitable to be applied in learning, but in certain situations the SCL method in Indonesia is still centralised and not yet owned teacher or lecturer autonomously and authentically. These Among systems are used by teachers in learning for autism students. Based on Javanese culture which is also the identity of the teacher itself makes this system feel strong in learning. Seen from a number of contexts and conversations that occur in the autism class, with the imposition of coercion, punishment, and strict instruction of the teacher to students make the classroom conditions become humanist, comfortable and can stimulate the speech of autism students well. Still according to Wangid (2009), the rule that can be applied is to provide guidance and support children to grow and develop because of their own nature. Strengthened with opinions (Wahyuningsih et al., 2018), the Among system can be applied in the learning process to instil character values in children which can be carried out from the initial, core, resting, and closing activities. In the application of the Among system, it can be done at the stages of preparing a syllabus, preparing RPPH, determining learning media, as well as compiling and evaluating. These Among systems are not only used to instil character values, but can be used to build knowledge in order to achieve a generation of people who are intelligent, spiritual, religious, emotional, and intellectual.

4.2   The function of teacher questions as stimulation for creative speech of students

We turn to the discussion of findings regarding 24 teacher question functions in the autism class discourse. In formulating good questions for verbal reasoning, one must know the purpose and function of the question (Walsh and Sattes, 2011). We agree with Boyd (2015) that it is also important to examine the function of the question why the question was asked, to support students' diverse responses such as closed and open questions in asking, reminding or implying answers at that time. So we conducted this research and got 24 function questions asked by teachers in the autism class. This study classifies the function of teacher questions in the context of stimulating the ability to speak creatively, if the right creative speech strategy will be generated by autism students. The function of the question also depends on the purpose of the questions posed (Walsh and Sattes, 2011). In asking questions, there are several forms of questions asked by the teacher. Why is this also important to know? The series of sentences prepared by the teacher in asking questions to autism students greatly influences the response of students' answers so that later they can produce creative speech.

The highest number of 24 question functions is obtained by requesting information (24%). This function is proposed by autism teachers to request information as far as they want. Question sentences are composed of news sentences with questions of intonation, without using question markers also found in some function of questions asked by the teacher, such as in the functions of asking for information, asking questions, clarification, confirmation (*e.g., do you understand?; interest or interest?*) reinforced with high intonation at the end of the sentence. Other findings regarding the form of the question are the emphasis *yes* at the end of the sentence to state the command function question (for example, *why does VV say must obey, huh?*), the offer (for example *eating fruit,*

huh?), affirmation (for example *Ina and Dito who play on the terrace, huh?*), reprimands (examples of *hands placed on the table huh?*) and prohibitions (examples can not be eaten, huh?). The use of interrogative words *what*, *how*, *why*, *who*, *where*, *when* also varies. The question word *what* at the end of the sentence and in front of the sentence as the dominant focusing is found in conversations in class. The question word *what* at the end of the sentence is more dominant in the class conversation, because it can be considered as a form of affirmation of the question. The pronoun question *who* in front, middle, end to ask the actor or replace the function of the subject, predicate or object. The interrogative pronoun *why* at the beginning, middle and end to ask the reason or cause of action. The interrogative pronoun *how* at the beginning or end of a sentence. Interrogative pronouns *where* without accompanied by assignments *in*, *to*, *from*, *that* and accompanied by assignments *in*, *to*, *from*, and *that*. The interrogative pronoun is accompanied by an explanation of quantity. The question sentence can be formed using particles with question patterns *what* (*kah*), *who* (*kah*), *how many* (*kah*), *why* (*kah*), *how* (*kah*). The use of the word *what* is widely used to confirm student knowledge, (for example *what colour is this fruit?*), who is used to open conversation, greetings, and relationships (examples of *who is sad today?*). Also found the question word *already* (example Bl, *did you have breakfast earlier, child?*). Likewise is found in the functions of praise, apologies, amazement, asking permission, asking for attention, suggestions, invitations, ridicule, monologue discourse, threats that use question words *what*, *who*, *why*, and *how*.

Responses to answers to autism teacher questions vary. Students with the initials Dn can provide creative answers to questions raised by the teacher (in data 1). Likewise for students with initials Sf who can respond to teacher questions by using several strategies in speaking (data 3). CR initial students can already do a good response (data 5). Children aged 8–9 years can provide verbal reasons in responding to open questions from the teacher in the discussion (Säre and Luik, 2011). Unlike the 10 years old IM, grade 5 elementary school still cannot understand the meaning of speech and the appropriate response (data 4), as well as the initials AA students aged 9 years, grade 2 elementary school and Bl 7 years old grade 1 elementary school who have not been able to understand the questions and have not been able to respond to teacher questions correctly. Children ages 4–8 need high interaction with effective questions in developing verbal reasoning (Säre et al., 2016). The higher age and linguistic abilities, they will be able to produce more complex syntax and will be able to tell stories longer (Norbury and Bishop, 2003).

4.3   *Implications of research findings for the development of autism learning*

Although many studies investigating the effects of questions seen from student participation, interaction, and student responses, for example (Fakeye and Ayede, 2013) that there is a positive and very strong relationship between teacher question and answer behaviour with student achievement; and (Shomoossi, 2004) who explore patterns of repetitive questions and their interactive effects on students, but there is not much research that examines questions especially in autism learning classes. Many past studies were only conducted through questionnaires and interviews to obtain data, not through observations in class. In Indonesia, the principles of education and teaching for children

with autism according to Depdiknas (2004) that we quote from Kurdi (2009) which can be used as an illustration of education and teaching in the world, namely:

a   Structured, in the sense of teaching starting from teaching materials/materials that are most easily done by children, then after they master it can be increased again to the same level but still in the same sequence. The next step is to actualise instructions in concrete actions.

b   Patterned, conditioned based on scheduled routines in accordance with the situation and environmental conditions. The hope is that children can more easily accept change, adapt to the environment (adaptive) and behave properly.

c   Programmed, meaning that the educational material program must be carried out in stages according to the child's ability.

d   Consistent, for teachers means staying in attitude, responding and treating children in accordance with the character and abilities of each individual autism child.

e   Continuously, the continuity of the basic principles of teaching, education programs and their implementation.

From the results of this study, we can provide implications for the findings, especially regarding the contribution, especially psychopragmatics. The uniqueness of autism students, both from several different levels of intelligence, attitudes, feelings and language acquisition can be used as a basis for making educational curricula for autism children. The curriculum must be adapted to the acquisition of children's language, keep it simple and not complex. It would be better if parenting the teacher with the compassion approach (among) is applied in learning. Educational system assessment can also be applied to be able to measure how far the level of learning success by first understanding the development of what behaviours do autism students after participating in learning. The goal of education in Indonesia is character education which is considered to be in accordance with the current situation, an approach based on love and religion becomes the main capital of the learning process (Rasna, 2019).

5   Limitations and suggested research

The limitations of the findings of this study are related to the sample, especially in the grouping of study participants. Samples were taken at the SD (primary school) Laboratory Autis, Malang, Indonesia with limited research subjects. The challenge going forward is to be able to conduct research with a larger sample, such as East Java and be able to compare care institutions for autism students with care laboratories as research sites. Whether similar results will be obtained with a variety of strategies typical of each autism care agency. In addition, there are two major challenges in Indonesia, namely the absence of more valid assessment tools and professional training for autism practitioners. In addition, there is a need for a cost-effective and easy to use screening instrument in Indonesian that is adapted to the Indonesian language and cultural context (Sidjaja et al., 2017).

Further research is needed to discuss the teacher's question function in class conversations, it is permissible that there will be questions that have not yet been

identified. Data can be analysed using other research methods, such as syntax, semantics and psycholinguistics to get significant results.

6 Conclusions

The function of 24 questions becomes the variety of teacher's utterances in asking questions. This function is used to stimulate the production of creative speech from autism students, and as a result autism students are able to produce creative speech. The system *Among* played by the teacher in successful learning helps class interaction. Javanese culture which is strong in teacher's identity produces several patterns, for example using greetings *mas* (calls to men) and *nduk* (calls to girls) as greetings of affection. Asking questions in stages and integrating closed and open questions can make autism students arrange the speech they will say, even though it takes time lag.

References

Alkuş, S. and Olgan, R. (2014) 'Pre-service and in-service preschool teachers' views regarding creativity in early childhood education', *Early Child Development and Care*, Vol. 184, No. 12, pp.1902–1919 [online] https://doi.org/10.1080/03004430.2014.893236.

Birbili, M. (2013) 'Developing young children's thinking skills in Greek early childhood classrooms: curriculum and practice', *Early Child Development and Care*, Vol. 183, No. 8, pp.1101–1114 [online] https://doi.org/10.1080/03004430.2013.772990.

Blanchett, W.J. (2001) 'Importance of teacher transition competencies as rated by special educators', *Teacher Education and Special Education: The Journal of the Teacher Education Division of the Council for Exceptional Children*, Vol. 24, No. 1, pp.3–12 [online] https://doi.org/10.1177/088840640102400103.

Blosser, P.E. (2000) *Ask the Right Question*, NSTA, Arlington.

Boeriswati, E. (2011) *Strategi Tuturan Kreatif Anak Pra-Sekolah di Jati Bening Bekasi*, Kongres Internasional Masyarakat Linguistik Indonesia KIML [online] http://aresearch.upi.edu/operator/upload/pro_2011_kimli_endry_boeriswati.pdf (accessed 22 August 2019).

Boyd, M.P. (2015) 'Relations between teacher questioning and student talk in one elementary ELL classroom', *Journal of Literacy Research*, Vol. 47, No. 3, pp.370–404 [online] https://doi.org/10.1177/1086296X16632451.

Caparro, M.M., Caparro, R.M., Carter, T. and Harbaugh, A. (2010) 'Understanding, questioning, and representing mathematics: what makes a difference in middle school classrooms?', *RMLE Online*, Vol. 34, No. 4, pp.1–19 [online] https://doi.org/10.1080/19404476.2010.11462077.

Chin, C. (2006) 'Classroom interaction in science: teacher questioning and feedback to students' responses', *International Journal of Science Education*, Vol. 28, No. 11, pp.1315–1346 [online] https://doi.org/10.1080/09500690600621100.

Chin, C. (2007) 'Teacher questioning in science classrooms: approaches that stimulate productive thinking', *Journal of Research in Science Teaching*, Vol. 44, No. 6, pp.815–843 [online] https://doi.org/10.1002/tea.20171.

Dababneh, K., Ihmeideh, F.M. and Al-Omari, A.A. (2010) 'Promoting kindergarten children's creativity in the classroom environment in Jordan', *Early Child Development and Care*, Vol. 180, No. 9, pp.1165–1184 [online] https://doi.org/10.1080/03004430902872950.

Depdiknas, D. (2004) *Kebijakan pendidikan Bagi Anak Autis*, Depdiknas, Jakarta.

Dohrn, S.W. and Dohn, N.B. (2018) 'The role of teacher questions in the chemistry classroom', *Chemistry Education Research and Practice*, Vol. 19, No. 1, pp.352–363 [online] https://doi.org/10.1039/C7RP00196G.

Eliasson, N., Karlsson, K.G. and Sørensen, H. (2017) 'The role of questions in the science classroom – how girls and boys respond to teachers' questions', *International Journal of Science Education*, Vol. 39, No. 4, pp.433–452 [online] https://doi.org/10.1080/09500693.2017.1289420.

Endry, B. (2011) *Strategi Tuturan Kreatif Anak Pra-Sekolah di Jati Bening Bekasi*, Kongres Internasional Masyarakat Linguistik Indonesia KIML [online] http://a-research.upi.edu/operator/upload/pro_2011_kimli_endry_boeriswati.pdf (accessed 22 August 2019).

Fakeye, D. and Ayede, E. (2013) 'Teachers' questioning behaviour and instructional organisation as correlates of students' achievement in English language', *Global Journal of Human Social Sciences Linguistics & Education*, Vol. 13, No. 2, pp.13–20.

Farrell, T.S. and Ives, J. (2015) 'Exploring teacher beliefs and classroom practices through reflective practice: a case study', *Language Teaching Research*, Vol. 19, No. 5, pp.594–610 [online] https://doi.org/10.1177/1362168814541722.

Farrell, T.S.C. (2009) *Talking, Listening, and Teaching: a Guide to Classroom Communication*, Corwin Press, Thousand Oaks, CA.

Fisher, R. (2001) 'Philosophy in primary schools: fostering thinking skills and literacy', *Reading*, Vol. 35, No. 2, pp.67–73 [online] https://doi.org/10.1111/1467-9345.00164.

Fisher, R. (2007) 'Dialogic teaching: developing thinking and metacognition through philosophical discussion', *Early Child Development and Care*, Vol. 177, Nos. 6–7, pp.615–631 [online] https://doi.org/10.1080/03004430701378985.

Goossen, L.H. (2002) *Classroom Questioning Strategies as Indicators of Inquiry Based Science Instruction*, Doctoral dissertation, Western Michigan University, Michigan [online] http://scholarworks.wmich.edu/dissertations/1278 (accessed 10 August 2019).

Hamm, J.V. and Perry, M. (2002) 'Learning mathematics in first-grade classrooms: on whose authority?', *Journal of Educational Psychology*, Vol. 94, No. 1, pp.126–137 [online] https://doi.org/10.1037/0022-0663.94.1.126.

Ho, D.G.E. (2005) 'Why do teachers ask the questions they ask?', *RELC Journal*, Vol. 36, No. 3, pp.297–310 [online] https://doi.org/10.1177/0033688205060052.

Hobson, J.A. and Hobson, R.P. (2007) 'Identification: the missing link between joint attention and imitation?', *Development and Psychopathology*, Vol. 19, No. 2 [online] https://doi.org/10.1017/S0954579407070204.

Huang, P. and Szente, J. (2014) 'Helping Chinese children become more creative', *Contemporary Issues in Early Childhood*, Vol. 15, No. 3, pp.297–302 [online] https://doi.org/10.2304/ciec.2014.15.3.297.

Jalongo, M.R. (2003) 'A position paper of the association for childhood education international: the child's right to creative thought and expression', *Childhood Education*, Vol. 79, No. 4, pp.218–228 [online] https://doi.org/10.1080/00094056.2003.10521196.

Kawalkar, A. and Vijapurkar, J. (2013) 'Scaffolding science talk: the role of teachers' questions in the inquiry classroom', *International Journal of Science Education*, Vol. 35, No. 12, pp.2004–2027 [online] https://doi.org/10.1080/09500693.2011.604684.

Krathwohl, D.R. (2002) 'A revision of Bloom's taxonomy: an overview', *Theory Into Practice*, Vol. 41, No. 4, pp.212–218 [online] https://doi.org/10.1207/s15430421tip4104_2.

Kunjana Rahardi, R. (2005) *Pragmatik Kesantunan Imperatif Bahasa Indonesia*, Erlangga, Jakarta.

Kurdi, F.N. (2009) 'Strategi dan Teknik Pembelajaran pada Anak dengan Autisme', *Forum Kependidikan*. September, Vol. 12, No. 1, pp.14–25.

Kurdi, F.N. (n.d.) *Strategi Dan Teknik Pembelajaran Pada Anak Dengan Autisme*, September, Vol. 12, No.1, pp.14–25.

Lam, Y.G. and Yeung, S.S.S. (2012) 'Towards a convergent account of pragmatic language deficits in children with high-functioning autism: depicting the phenotype using the pragmatic rating scale', *Research in Autism Spectrum Disorders*, Vol. 6, No. 2, pp.792–797 [online] https://doi.org/10.1016/j.rasd.2011.08.004.

Lee, Y. and Kinzie, M.B. (2012) 'Teacher question and student response with regard to cognition and language use', *Instructional Science*, Vol. 40, No. 6, pp.857–874 [online] https://doi.org/10.1007/s11251-011-9193-2

Mahmood, A.H. and Hassan, Z.M. (2018) 'A psycho-pragmatic study of self-identity of Kurdish EFL learners in Kurdistan region', *English Language Teaching*, Vol. 11, No. 2, p.99 [online] https://doi.org/10.5539/elt.v11n2p99.

Mustajoki, A. (2012) 'A speaker-oriented multidimensional approach to risks and causes of miscommunication', *Language and Dialogue*, Vol. 2, No. 2, pp.216–243 [online] https://doi.org/10.1075/ld.2.2.03mus.

Norbury, C.F. and Bishop, D.V.M. (2003) 'Narrative skills of children with communication impairments', *International Journal of Language & Communication Disorders*, Vol. 38, No. 3, pp.287–313 [online] https://doi.org/10.1080/136820310000108133.

Ojwang, B.O. (2016) 'A functional-pragmatic analysis of conversation management strategies in Dholuo', *Southern African Linguistics and Applied Language Studies*, Vol. 34, No. 4, pp.325–346 [online] https://doi.org/10.2989/16073614.2016.1261037.

Oktaviana, K., Hidayati, S. and Wibowo, Y. (2016) 'Ragam Pertanyaan Guru Dan Siswa Dalam Pembelajaran Biologi Di Man Kotamadya Yogyakarta', *Jurnal Pendidikan Biologi*, Vol. 5, No. 7, p.11.

P21 Partnership for 21st Century Learning (2009) 'Framework for 21st century learning', *Diakses dari* [online] http://www.p21.org/our-work/p21-framework.

Padilla Cruz, M. (2018) 'Pragmatic competence injustice', *Social Epistemology*, Vol. 32, No. 3, pp.143–163 [online] https://doi.org/10.1080/02691728.2018.1458351.

Rahmat, W., Revita, I. and Fitriyah, R. (2019) 'Psychopragmatic analysis in language learning and teaching processes', *Curricula: Journal of Teaching and Learning*, Vol. 4, No. 2, pp.92–100.

Rasna, I.W. (2019) 'A creative construction model of language acquisition in linguistic politeness for elementary school children character education', Presented at the Proceedings of the *1st International Conference on Innovation in Education (ICoIE 2018)*, Padang, Indonesia [online] https://doi.org/10.2991/icoie-18.2019.60.

Ravet, J. (2018) ''But how do I teach them?': autism & initial teacher education (ITE)', *International Journal of Inclusive Education*, Vol. 22, No. 7, pp.714–733 [online] https://doi.org/10.1080/13603116.2017.1412505.

Rosenshine, B.V. (2010) 'Process-product research', in Hunt, T., Carper, J., Lasley, T. and Raisch, C. (Eds.): *Encyclopedia of Educational Reform and Dissent* [online] https://doi.org/10.4135/9781412957403.n353.

Säre, E. and Luik, P. (2011) *Preschool and Primary Education*, pp.121–134, Peter Lang Europäischer Verlag der Wissenschaften, Frankfurt am Main.

Säre, E., Luik, P. and Fisher, R. (2016) 'Supporting educational researchers and practitioners in their work in education: assessing the verbal reasoning skills of five- to six-year-old children', *European Early Childhood Education Research Journal*, Vol. 24, No. 5, pp.638–651 [online] https://doi.org/10.1080/1350293X.2016.1213564.

Säre, E., Tulviste, T. and Luik, P. (2019) 'The function of questions in developing a preschooler's verbal reasoning skills during philosophical group discussions', *Early Child Development and Care*, Vol. 189, No. 4, pp.555–568 [online] https://doi.org/10.1080/03004430.2017.1331221.

Schegloff, E.A. (2007) *Sequence Organization in Interaction: a Primer in Conversation Analysis*, Vol. 1, Cambridge University Press, Cambridge.

Scott, P.H., Mortimer, E.F. and Aguiar, O.G. (2006) 'The tension between authoritative and dialogic discourse: a fundamental characteristic of meaning making interactions in high school science lessons', *Science Education*, Vol. 90, No. 4, pp.605–631 [online] https://doi.org/10.1002/sce.20131.

Shomoossi, N. (2004) 'The effect of teachers' questioning behavior on EFL classroom interaction: a classroom research study', *The Reading Matrix*, Vol. 4, No. 2, pp.96–104.

Sidjaja, F.F., Newcombe, P.A., Irwanto, I. and Sofronoff, K. (2017) 'The diagnosis of autism spectrum disorder in urban Indonesia: a brief report', *International Journal of Disability, Development and Education*, Vol. 64, No. 1, pp.33–44 [online] https://doi.org/10.1080/1034912X.2016.1162768.

Siemund, P. (2017) 'Interrogative clauses in English and the social economics of questions', *Journal of Pragmatics*, Vol. 119, pp.15–32 [online] https://doi.org/10.1016/j.pragma.2017.07.010.

Simmons, E.S., Paul, R. and Volkmar, F. (2014) 'Assessing pragmatic language in autism spectrum disorder: the Yale in vivo pragmatic protocol', *Journal of Speech, Language, and Hearing Research*, Vol. 57, No. 6, pp.2162–2173 [online] https://doi.org/10.1044/2014_JSLHR-L-14-0040.

Siraj-Blatchford, I. and Manni, L. (2008) ''Would you like to tidy up now?' An analysis of adult questioning in the English foundation stage', *Early Years*, Vol. 28, No. 1, pp.5–22 [online] https://doi.org/10.1080/09575140701842213.

Smart, J.B. and Marshall, J.C. (2013) 'Interactions between classroom discourse, teacher questioning, and student cognitive engagement in middle school science', *Journal of Science Teacher Education*, Vol. 24, No. 2, pp.249–267 [online] https://doi.org/10.1007/s10972-012-9297-9.

Smith, R.E. and Bayen, U.J. (2004) 'A multinomial model of event-based prospective memory', *Journal of Experimental Psychology: Learning, Memory, and Cognition*, Vol. 30, No. 4, pp.756–777 [online] https://doi.org/10.1037/0278-7393.30.4.756.

Sterponi, L. and Shankey, J. (2014) 'Rethinking echolalia: repetition as interactional resource in the communication of a child with autism', *Journal of Child Language*, Vol. 41, No. 2, pp.275–304 [online] https://doi.org/10.1017/S0305000912000682.

Supriyanto, A. (2008) *Sistem Among sebagai 'Niche' pendidikan*, Kompas, Halaman, 2 April 2008, Vol. 12.

Tsui, L. (2002) 'Fostering critical thinking through effective pedagogy: evidence from four institutional case studies', *The Journal of Higher Education*, Vol. 73, No. 6, pp.740–763 [online] https://doi.org/10.1353/jhe.2002.0056.

Ucus, S. and Acar, I.H. (2019) 'Exploring the perceptions of student teachers about 'creative school' in early childhood education', *Early Child Development and Care*, Vol. 189, No. 2, pp.191–206 [online] https://doi.org/10.1080/03004430.2017.1307838.

Van Booven, C.D. (2015) 'Revisiting the authoritative-dialogic tension in inquiry-based elementary science teacher questioning', *International Journal of Science Education*, Vol. 37, No. 8, pp.1182–1201 [online] https://doi.org/10.1080/09500693.2015.1023868.

Wahyuningsih, S., Dewi, N.K. and Hafidah, R. (2018) 'Implementation of among system A3 (Asah, Asih, Asuh) in planting the value of characters in early childhood', *SHEs: Coference Series*, Vol. 1, No. 1, pp.822–826.

Walsh, J.A. and Sattes, B.D. (2011) *Thinking through Quality Questioning*, Sage, California.

Wangid, M.N. (2009) 'Sistem Among pada Masa Kini: Kajian Konsep dan Praktik Pendidikan', *Jurnal Kependidikan*, Vol. 39, No. 2, pp.129–140.

Wellington, J. and Osborne, J. (2001) 'Talk of the classroom: language interactions between teachers and pupils', in Wellington, J. and Osborne, J. (Eds.): *Language and Literacy in Science Education*, pp.24–40, Open University Press, Buckingham, UK.

Werdiningsih, D. (2015) 'Konstruksi Kreatif Pemerolehan Kompetensi Pragmatik Anak Usia Prasekolah', *Diksi*, Vol. 15, No. 1 [online] https://doi.org/10.21831/diksi.v15i1.6557.

Widodo, A. (2006) 'Profil Pertanyaan guru dan Siswa dalam Pembelajaran Sains', *Jurnal Pendidikan dan Pembelajaran*, Vol. 4, No. 9, pp.139–148 [online] http://widodo.staf.upi.edu/files/2011/03/2006-Profil-Pertanyaan-Guru-dan-Siswa-dalam-Pembelajaran-Sains.pdf (accessed 2 September 2019).