

Error Analysis Of Junior High School Students Based On Newman Procedure In Solving Numeration Problems Reviewing From Independent Learning

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ABSTRACT

The points of this review (1) are to figure out the most missteps made by understudies in settling the base ability evaluation numeracy questions, and (2) to figure out the elements that make understudies commit errors in addressing the base skill appraisal numeracy questions because of free learning, (3) to depict the mistakes. what understudies do is botches made by understudies with autonomous learning in taking care of AKM numeracy issues. In this study utilizing an illustrative strategy with a subjective methodology, the subjects in this study were educators and understudies. Information assortment methods utilized tests, meetings, surveys, and documentation from the educator and 6 understudies in the classification of High, Medium, and Low. Test methods, interview procedures, survey strategies. The aftereffects of this study are (1) the slip-ups made by understudies in addressing the AKM numeracy questions in light of free picking up, as per the educator, incorporating absence of comprehension of the material, absence of comprehension of inquiries, and understanding inquiries. (2) The missteps made in tackling the inquiries that most understudies make are mistakes in perusing the inquiries, grasping the inquiries, and abilities during the time spent addressing the AKM numeracy questions. (3) Learning autonomy influences the consequences of addressing the AKM numeracy questions that are finished, understudies with high classifications on test results have high learning freedom, and understudies who get low experimental outcomes are less autonomous in learning.

KEYWORDS

Minimum Competency Sssessment, Numeracy, Independent Learning, Mistakes

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A. Indroduction

Science learning is in a real sense a course of connection among educators and understudies that includes thinking examples and handling rationale in a learning climate that is purposely made by educators with different techniques so math learning programs develop and grow ideally and understudies can complete instructing and learning exercises successfully and productively. Consequently, the Indonesian National Education places science as a center subject given at each degree of training (Nabillah and Abadi, 2019).

PISA (Program for International Student Assessment) was made to test the typical scholastic capacity of schoolchildren in every country. It is trusted that by utilizing the PISA benchmark, every nation can know the nature of its schooling. One of the scholastic fields tried in PISA is science, so with PISA the nature of understudies' capacities from every country in math can likewise be known, and can measure up. PISA information shows that in 2018 the worth of math in Indonesia has diminished. In 2015 the worth of math in Indonesia was 386 and tumbled to 379 in 2018 (OECD, 2018). As per the Minister of Education and Culture, the PISA appraisal is an entirely significant contribution to the assessment and improvement of the school system in Indonesia (Makronah, 2020).

Actually, understudies in Indonesia are as yet ailing in the authority of numerical skill. The aftereffects of the 2018 review (PISA) delivered in 2018, expressed that for the arithmetic classification Indonesia was positioned seventh from the last (73) with a typical score of 379 (Tohir, 2019). The typical score of math abilities acquired by Indonesian understudies is still below the

OECD normal. This numerical capacity is impacted by low capacities as far as calculations, information understanding, moves toward taking care of issues, and discoveries in the field of science (Jannah, 2020).

Indonesia actually has far to go as far as time and energy to continue to battle at a more significant level. Much should be possible to address lacks in the schooling system, like equivalent dispersion of teachers, admittance to training, and deficient learning offices (Fenanlampir, Batlolona, and Imelda, 2019). Numerous nations all over the planet have gone through huge educational program alterations, and it is proposed that monetary goals are the super main impetus behind these changes (Coll, Dahsah, and Faikhamtac, 2010). Australia and the UK have carried out educational plans ideas that attention to proficiency and numeracy (H. Forgasz, Leder, and Hall, 2017; Groves, 2001; Miller, 2018). In the Australian educational plan, numeracy is incorporated as one of the seven general abilities that each educator is liable for creating in their understudies (Callingham, Beswick, and Ferme, 2015).

The Minimum Competency Assessment (AKM) is an appraisal of the fundamental capabilities required by all understudies to have the option to foster their own ability and take part decidedly in the public eye. There are two essential abilities estimated by AKM, to be specific understanding of education and numerical proficiency (numbering). The AKM is ordered in view of skill pointers that structure a continuum of learning results capability directions, the type of the National Assessment questions comprises of different decisions, complex various decisions, matchmaking, short sections, and portrayals. Coming up next is an illustration of numeracy inquiries in the AKM (Kemendikbud, 2021). Understudies' scores are still low in arithmetic in PISA. Numerous understudies actually commit errors in addressing the AKM numeracy questions. This study plans to figure out the most slip-ups made by understudies in settling the AKM numeracy questions.

To figure out the variables that make understudies commit errors in tackling numeration inquiries for a base skill evaluation in light of mastering freedom. Depicting botches made by understudies with autonomous learning in tackling AKM numeracy questions.

B. Research methods

This study utilizes a subjective way to deal with depict the issue and focal point of the examination. The subjective clear technique is the means of social exploration to acquire distinct information such as words and pictures. As indicated by Lexy J. Moleong (2022), the information gathered in the subjective examination are as words, pictures, and not numbers. The subjective exploration approach is a methodology that doesn't utilize the premise of factual work, yet depends on subjective proof. In another article, he expressed that the subjective methodology is a methodology in light of the truth of the field and what the respondents experienced, at last searching for a hypothetical reference. To depict understudies' mix-ups in addressing numeracy questions, Minimum Competency Assessment in light of free learning. This examination was led at SMP IT Hidayatul Mujahidin. The subjects of this examination are understudies of class VIII for the scholarly year 2021/2022.

C. Results dan Discussion

From the experimental outcomes, the scientists took 2 understudies with high experimental outcomes, 2 understudies with moderate experimental outcomes, and 2 understudies with low experimental outcomes. The class of understudies with a high test was taken from the most elevated places of 6 and 5, and the class of understudies with moderate outcomes was taken from the middle point or the center worth from the scope of the greatest to the bottommost extremes.

Middle : 6, 5, 3, 3, 1, 0

So the class of understudies with moderate test results from a mark of 3, the class of understudies with low experimental outcomes.

Understudies who are taken to address the high class are coded ST-1 and ST-2, ST-1 is taken in light of the main mark of the greatest experimental outcome, adding up to 6 focuses. ST-2 was taken on the grounds that it seems as though the response has an alternate approach to tackling and has 5 focuses. Understudies who are taken for the medium class are given the code SS-1 and SS-2 are taken in view of focuses and strategies for a finish that is near right and has not many mistakes. Understudies in the low classification were coded SR-1 and SR-2, the two understudies were taken in light of the fact that they had the bottommost extremes among the others.

In this part, information from interviews is introduced in regards to the most common way of settling the AKM numeracy questions in view of autonomous learning. The mistakes experienced by understudies in working on the AKM numeracy questions depend on autonomous learning. The information introduced was acquired from the instructor and 6 understudies.

1. Analysis of Test Results

In this part, a depiction of the test brings about the type of Atlas. ti programming is portrayed in regards to understudy mistakes in tackling AKM numeracy questions.

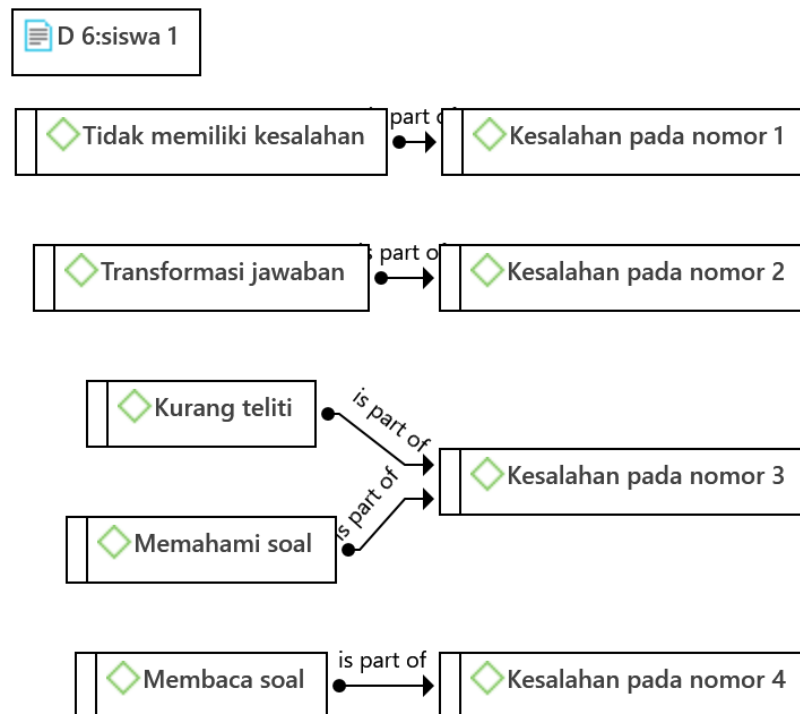


Figure 1. High Error on AKM ST-1 Numerical Problems

In view of the Code Analysis over, the mistakes made by understudies in light of the consequences of the blunder test in settling the AKM numeracy questions are: (1) No mistakes, (2) Answer change, (3) Less careful in addressing questions, figuring out questions, understanding inquiries (4) Reading question.

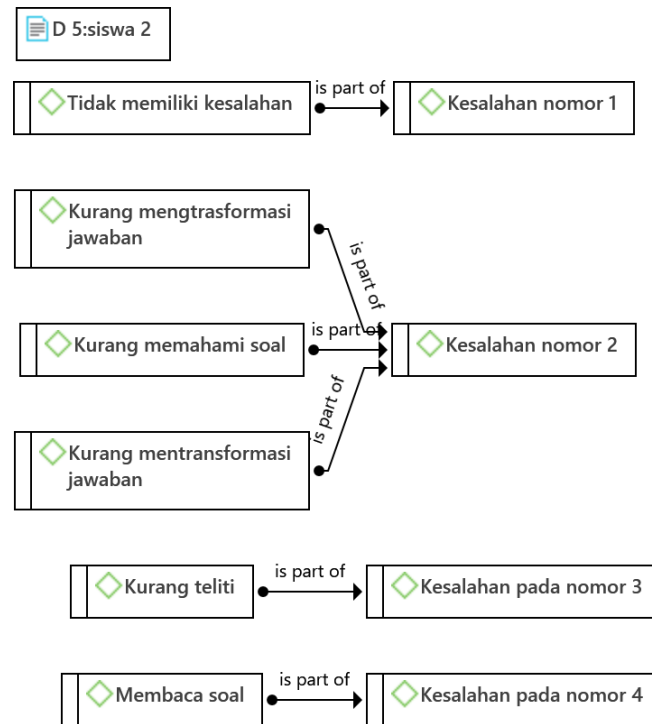


Figure 2. High Error on AKM ST-2. Numerical Problems

In view of the Code Analysis over, the mistakes made by understudies in light of the consequences of the blunder test in settling the AKM numeracy questions are: (1) No mistakes, (2) Answer change, (3) Less careful in addressing questions, figuring out questions, understanding inquiries (4) Reading question.

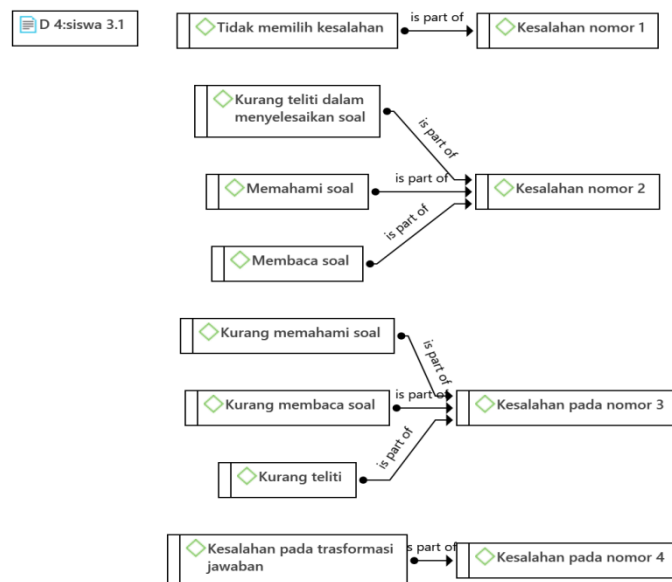


Figure 3. Moderate Errors in the AKM SS-1 Numerical Problem

In view of the Code Analysis over, the blunders made by understudies in light of the consequences of the mistaken test in settling the AKM numeracy questions are: (1) No mistakes, (2) Less exhaustive in responding to questions, figuring out questions, understanding inquiries (3) Less careful in addressing questions, grasping inquiries, read questions (4) Transformation of replies.

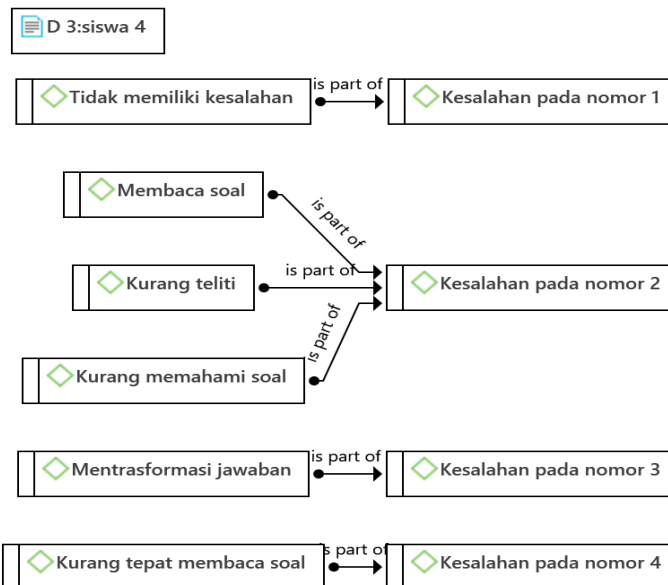


Figure 4. Moderate Errors in the AKM was SS-2 Numerical Problem

In light of the Code Analysis over, the mistakes made by understudies in view of the consequences of the blunder test in settling the AKM numeracy questions are: (1) No mistakes, (2) Not being careful in addressing questions, figuring out questions, understanding inquiries (3) Transforming replies. (4) It isn't fitting to peruse the inquiries.

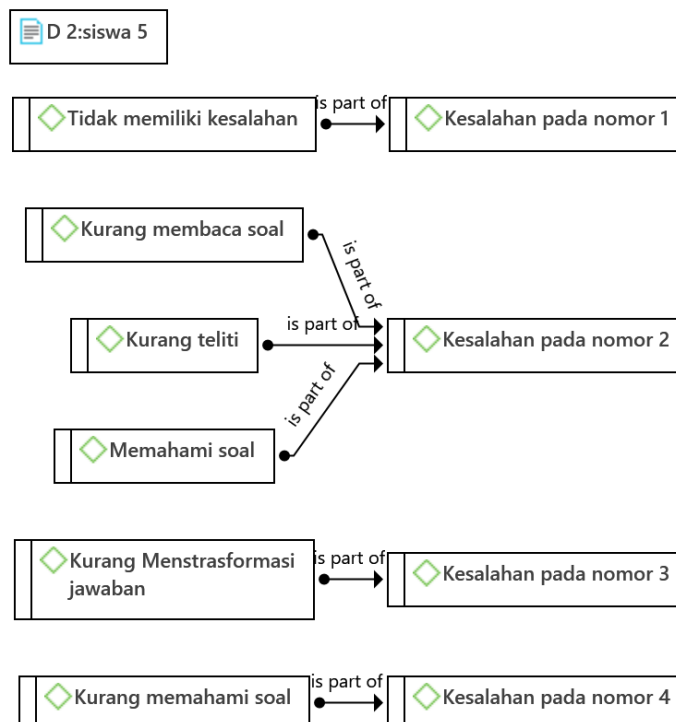


Figure 5. Low Errors in AKM SR-1. Numerical Problems

In view of the Code Analysis over, the mistakes made by understudies in light of the consequences of the blunder test in settling the AKM numeracy questions are: (1) No blunders, (2) Less exhaustive in addressing questions, grasping inquiries, (3) Transforming replies. (4) Do not grasp the inquiry.

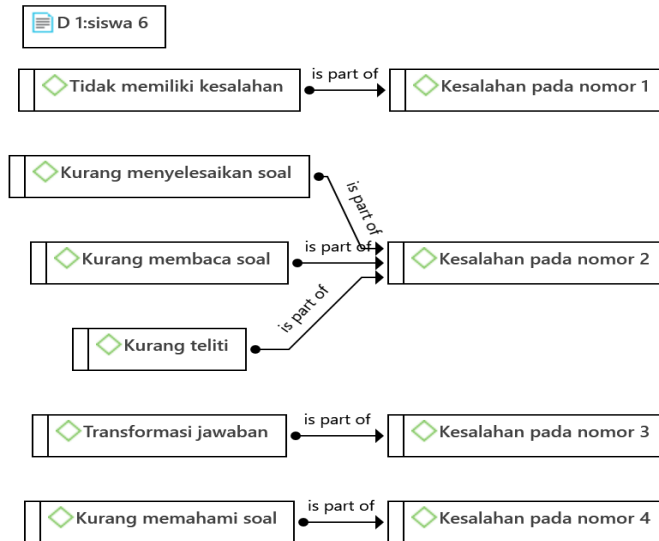


Figure 6. Low Errors in the AKM SR-2. Numerical Problem

In light of the code examination over, the blunders made by understudies in view of the consequences of the mistaken test in tackling the AKM numeracy questions are: (1) No blunders, (2) Fewer settling questions, Less understanding inquiries, Less exhaustive (3) Answer change. (4) Do not grasp the inquiry.

2. Analysis of Interview Results

In this segment, a depiction of the consequences of the meetings as Atlas. ti programming is portrayed with respect to understudies' troubles in tackling AKM numeracy questions.

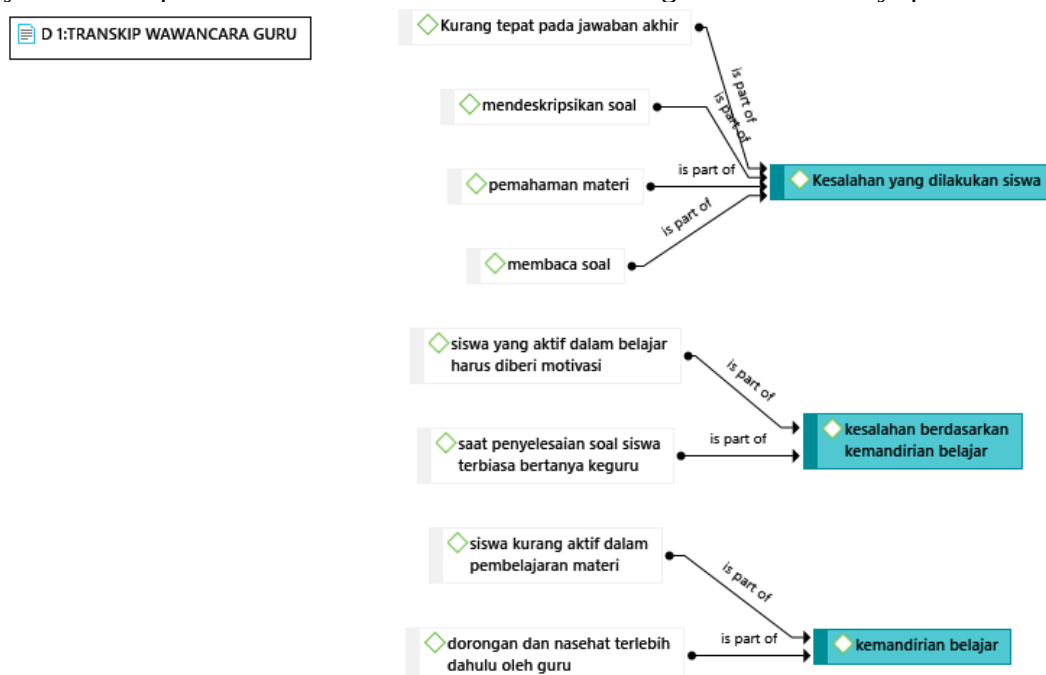


Figure 7. Analysis of Interview Results with Teachers

In view of the code examination over, the blunders made by understudies as per the educator were mistakes in settling the AKM numeracy questions, in particular: (1) grasping the material, (2) less helpful while learning occurred, (3) blunders in understanding inquiries (4) figuring out questions.

3. *Analysis of Interview Results with ST-1*

In light of the aftereffects of the meeting examination with ST-1, it very well may be depicted that the mix-ups made by ST-1 in tackling the AKM numeracy questions are being referred to as number four on the grounds that ST-1 doesn't grasp the material on the inquiry, is less exhaustive in perusing the inquiries, and is less exact in responding to the inquiries. For questions number 1, 2 and 3 ST-1 gets higher focus than the others in light of the fact that ST-1 addresses questions and answers questions accurately, for self-concentrate on freedom ST-1 has high autonomy.

4. *Analysis of Interview Results with ST-2*

In light of the consequences of the examination of meetings with ST-2, they like math a little, the slip-ups made while tackling numeracy issues are at number 4 on the grounds that ST-2 doesn't grasp the inquiries and doesn't comprehend the current sentence sentences, ST-2 learning freedom is less free in learning and settling Assignment inquiries for precision in tackling ST-2 inquiries are exceptionally exhaustive in light of the fact that they rehash and reevaluate the responses that have been replied

5. *Analysis of Interview Results with SS-1*

In view of the aftereffects of the meeting examination, ST-1 made a mistake in addressing the base skill appraisal numeration question being referred to as number 3 whereas SS-2 made a blunder since it was deficient in dealing with the inquiries, ailing in understanding the inquiries, in chipping away at the inquiries SS-1 reviewed the responses that had been given. work and have autonomous discovering that is very free, in light of the fact that he is continuously taking care of his own concerns or tasks.

6. *Analysis of Interview Results with SS-2 Students*

In light of the consequences of the examination of meetings with SS-2 above, it very well may be depicted that the blunder in tackling the numeracy question of the base skill appraisal did by SS-2 on the test is at number 3 where SS-2 ascertains erroneous responses, mistaken arrangements, hardships in perusing the inquiries in addressing SS-2 inquiries to finish and return the responses that have been finished, in autonomous learning SS-2 is less free in learning since SS-2 at times doesn't do the inquiries or tasks given by the educator either at the everyday schedule home.

7. *Analysis of Interview Results with SR-1*

In light of the aftereffects of the examination of meetings with SR-1, it very well may be depicted that understudies' missteps in settling the AKM numeracy questions done by SR-1 were, Errors lie in numbers 3 and 4 since SR-1 didn't comprehend the inquiries, read the inquiries, SR-1 could have done without Mathematics. , SR-1 in learning freedom is still less autonomous in learning both at school and at home, since SR-1 finds it hard to do it single-handedly without the assistance of companions.

8. *Analysis of Interview Results with SR-2*

In light of the aftereffects of the examination of meetings with SR-2, it very well may be depicted that the missteps made by SR-2 in tackling numeracy issues are on the grounds that the SR-2 component could do without math, the blunders made by SR-2 are in numbers 2,3 and 4 in figuring out the material. in taking care of issues, ailing in understanding inquiries, SR-2 in autonomous learning doesn't have freedom in learning SR-2 never advances without anyone else and never does the inquiries and tasks given by the educator.

In light of the consequences of numeracy tests and meetings. The consequences of the meeting analysts acquired information about the mix-ups made by understudies in tackling the AKM numeracy questions in light of autonomous learning.

9. Mistakes made by students according to the teacher

Table. 1. Mistakes made by students according to the teacher

Fault	Research subject
Reading Questions	✓
Problem Transformation Error	-
Understanding Problem	✓
Process Skills	-
Answer Accuracy	✓

In light of table 1, there were 3 blunders made by understudies in addressing the AKM numeracy questions, to be specific: 1) it was not proper to peruse the inquiries in view of the understudies' mix-ups. 2) Understanding the inquiries and precision of replies, since understudies don't grasp the material. 3) Lack of abilities in addressing questions.

The educator specifies mistakes in addressing the AKM numeracy questions made by understudies on the capacity to understand questions and understanding ideas or materials that have been concentrated yet understudies don't figure out the material. This is as per the consequences of examination by Gufron and Basir (2021), that the blunders made by understudies in settling the AKM numeracy questions are that understudies experience perusing mistakes because of disarray in looking at the pictures introduced, understudies from the subjects utilized by understudies are befuddled recorded as a hard copy condition in light of the fact that the inquiries are a mix of story inquiries as sentences with story inquiries as pictures. The blunder at the change stage is on the grounds that understudies find it challenging to decipher numerical sentences from articulations as 2 pictures.

10. Student Error

Table 2. Errors made by students

Problem Solving Error	Research Subjects Students					
	ST-1	ST-2	SS-1	SS-2	SR-1	SR-2
Reading Questions	-	✓	✓	✓	✓	✓
Understanding Problem	-	-	✓	✓	✓	✓
Process Skills	✓	-	✓	-	✓	✓
Answer Accuracy	-	✓	-	✓	-	✓
Problem Transformation	✓	-	-	-	✓	-

In light of the table, it was observed that 4 mistakes were made in settling the AKM numeracy questions including 1) not perusing the inquiries accurately, and 2) Understanding the inquiries in tackling issues. 3) process abilities in tackling issues. 4) The exactness of understudies in addressing questions.

In view of the table, it very well may be depicted that understudies with the most elevated score classification made 1 mistake in tackling the issue, to be specific in process abilities while addressing numeracy questions, and understudies with the high score class made 2 blunders in settling numeracy questions remembering mistakes for understanding inquiries and blunders in understanding inquiries, understudies the low classification made 3 to 4 blunders, in particular mistakes in understanding inquiries, mistakes in understanding inquiries, blunders in critical thinking process abilities, blunders in precision. So it very well may be finished up, by and large understudies with high, medium, and low classes committed errors in settling the AKM numeracy inquiries in understanding inquiries, figuring out questions, abilities simultaneously, or blunders in precision. It's

simply that the errors made by understudies in tackling numeracy issues number of slip-ups produced using not many to many.

D. Conclusion

In view of the aftereffects of the examination and conversation, ends can be drawn with respect to understudy mistakes in addressing numeration inquiries for least capability appraisals in light of learning autonomy. As per the educator, among others, specifically, absence of comprehension of the material in light of the fact that at the hour of learning understudies were not favorable and centered while learning occurred, needed comprehension of inquiries, less exact in perusing questions due to the propensity for understudies who like to ask the instructor when given tasks or questions. The mix-ups made in addressing the inquiries that were generally finished by understudies were blunders in perusing the inquiries, figuring out the inquiries, and handling abilities in settling the AKM numeracy questions. Learning freedom influences the consequences of settling the AKM numeracy questions that are finished. Understudies with a high classification on test results have high learning freedom, understudies with moderate experimental outcomes have genuinely great autonomy, and understudies who get low experimental outcomes have low learning autonomy in learning.

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