Analysis of Essay Test Instruments Using Higher Order Thinking Skill (HOTS) at High School Mathematics Students Using The Rasch Model

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| Author Order | 2 of 3 |
| Accreditation | 3 |
| Abstract | Learning process in the 21st century, learners are not only expected to have a high understanding of concepts, but also HOTS. Therefore, the need to be presented about HOTS as well as its analysis to find out the ability of students on these HOTS skills. This study aimed to analyze the form of HOTSbased Essay test in Mathematics lessons focused in trigonometry. This research was conducted with a descriptive quantitative and qualitative approach. Samples were taken from high school students of class X SMA Negeri 1 Mandirancan in small class trials, amounting to 36. Quantitative analysis to look at the characteristics of instruments and item with rasch model. Qualitative data analysis was conducted using source triangulation and techniques on the factual condition of instrument. Based on the analysis, the problem item that is not valid enough there is only 1 out of 10 items, that is item number 1. Item measure in this math Essay test question is classified into 4 categories, that is 1 item is very difficult, 4 items are difficult, 4 items are categorized easily and 1 category item is very easy. Based on the output of the person fit, can be seen, a total of 52.78% of students can complete the HOTS Math essay test well, but the level of person ability is lower than the quality of the item judging by the reliability value of the person and item. In conclusion, the essay test instrument HOTS Mathematics developed tested valid and reliable and has adequate characteristics |
| Publisher Name | Universitas Negeri Semarang |
| Publish Date | 2020-08-23 |
| Publish Year | 2020 |
| Doi | DOI: 10.15294/jere.v9i2.46133 |
| Citation | |
| Source | Journal of Research and Educational Research Evaluation |
| Source Issue | Vol 9 No 2 (2020) |
| Source Page | 58-69 |
| Url | https://journal.unnes.ac.id/sju/index.php/jere/article/view/46133/18685 |
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