

## Higher-order thinking skills-based science literacy questions for high school students

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| <b>Title</b>          | Higher-order thinking skills-based science literacy questions for high school students                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Author Order</b>   | 2 of 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Accreditation</b>  | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Abstract</b>       | <p>Students' science literacy abilities must receive special attention, particularly by investigating root causes and implementing strategies for improvement. Measuring science literacy through questions is crucial to determine students' proficiency to be science literate. This research aims to produce higher-order thinking skill (HOTS)-based science literacy questions that are feasible (valid and reliable) to measure high school students' science literacy on respiratory system material. This research employed research and development (RD) approach. This study involved 300 senior high school students across Indonesia. Research data was analyzed using confirmatory factor analysis (CFA). The empirical study revealed 20 HOTS-based science literacy questions on respiratory system material with acceptable reliability values. These results show the feasibility of the developed questions and highlight the possibility for further extensive trial stage to assess students' science literacy.</p> |
| <b>Publisher Name</b> | Intelektual Pustaka Media Utama                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Publish Date</b>   | 2025-02-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Publish Year</b>   | 2025                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Doi</b>            | DOI: 10.11591/edulearn.v19i1.21508                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Citation</b>       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Source</b>         | Journal of Education and Learning (EduLearn)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Source Issue</b>   | Vol 19, No 1: February 2025                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Source Page</b>    | 134-142                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Url</b>            | <a href="http://edulearn.intelektual.org/index.php/EduLearn/article/view/21508/10662">http://edulearn.intelektual.org/index.php/EduLearn/article/view/21508/10662</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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