

Can different learning styles aid in understanding Primary Scientific Literature?

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INTRODUCTION: Primary scientific literature (PSL) is a great source of information of what scientists are researching. These results discovered by scientists are very important because this is the foundation of our advancements as a society. Most universities do not require students to read PSL as part of the curriculum.

Our lab is interested in making PSL more accessible to a wider audience, including non-STEM majors. Specifically, we aim to increase student interest and engagement in reading PSL. Would incorporating different learning styles into how students interact with PSL increase student interest (biology and non-biology) in reading PSL?

METHODS: A questionnaire was developed in order to investigate what other learning styles students are interested in. Two groups of students were tested; one group of biology majors (n=360) and another group of non-biology majors (n=20). Students read a selected annotated PSL article and then completed a questionnaire. Quantitative and qualitative research methods were chosen as a way to further understand how participants would want to incorporate other study techniques such as audio or visual aids.

RESULTS: Both biology and non-biology majors prefer visual learning styles (72% biology and 80% non-biology). Verbal learning styles were also somewhat preferred (43% for biology and 65% for non-biology). Quantitative data on exactly what kind of visual learning styles students prefer (videos, images, photos, charts, etc.) was collected and is currently being analyzed.

CONCLUSION AND FUTURE WORK: This research suggests that including visual aids as part of PSL may increase student interest in reading PSL. Future work will involve developing additional visual content and measuring student interest.