

FROM THE FIELD TO PIXELS: USING TECHNOLOGY TO IMPROVE GEOSCIENCE EDUCATION IN APPALACHIA



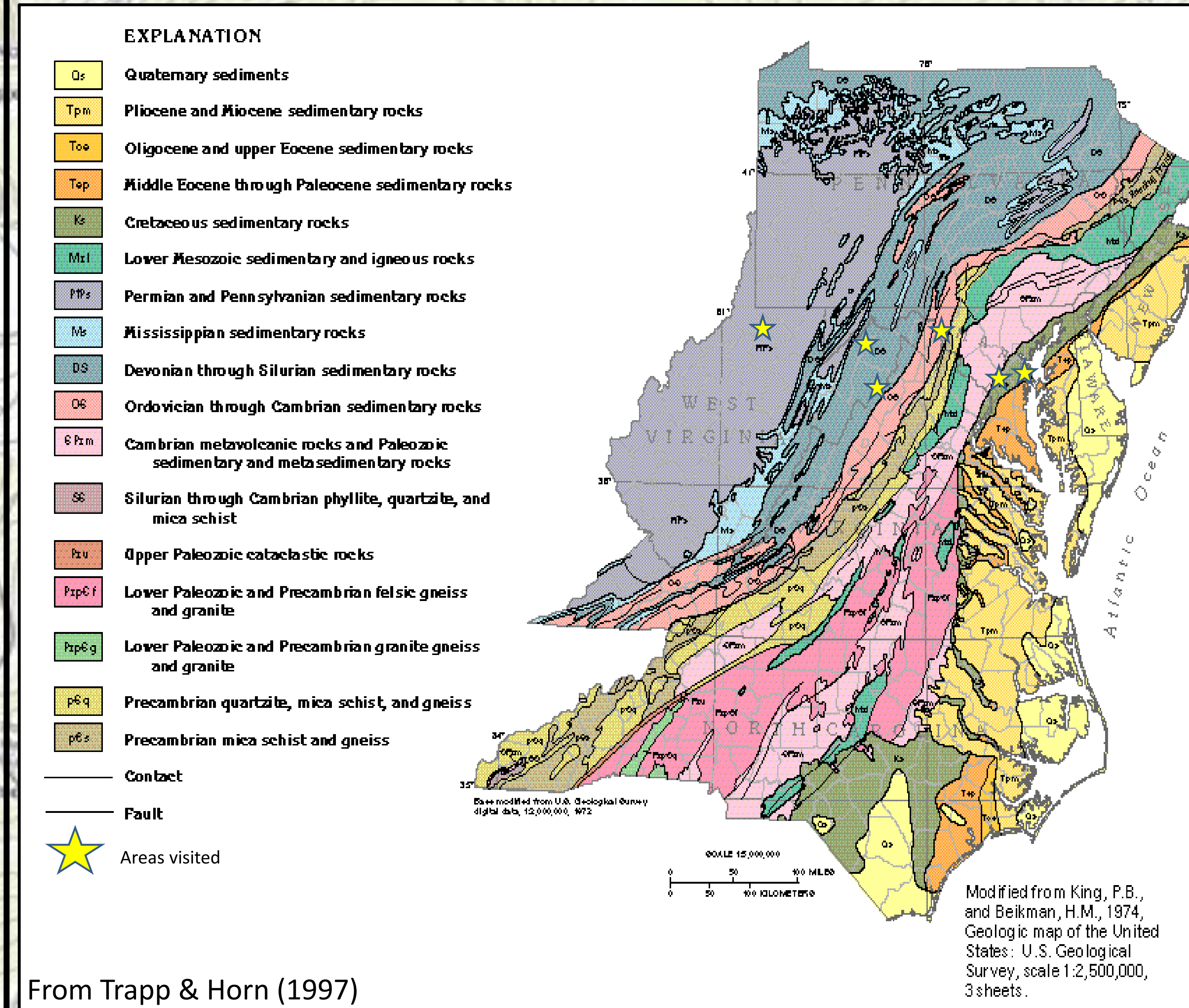
Nathan E. Van Vranken
STEM Division, Potomac State College

Purpose of the Grant

Teaching in rural Appalachia has allowed for innovation to thrive during the COVID-19 pandemic. STEM fields such as Geology, Biology, and Geography have benefited from the advancements of technology provided by grants sponsored by the WVU Teaching Learning Commons (TLC) to help students meet their learning outcomes and become successful in the courses. Three objectives were completed during the studied years (2020-2022) using resources provided by the Technology in the Classroom (TiG) grant sponsored by the TLC

1. Make use of the new technologies develop innovation in the classroom for either a short- or long-term duration. Improve overall student satisfaction as these new technologies allow for more accessibility to the material and support from the instructor.
2. Have students develop a stronger connection to their region by applying concepts found in their STEM class to local examples. This develops the next generation of “citizen scientist”.
3. Find an alternative to OER (Open Educational Resources) when learning is not readily available or become too cumbersome for adult learners.

Technology Aided Classroom Fieldtrips



Geoscience students need to view local examples of the topics discussed in class to better meet their learning objectives. In my class, I have used the TiG grant to develop virtual field trips embedded into my lessons to connect students with their local geology. During my time at Potomac State College, I have surveyed at least 12 different localities ranging in geologic ages from the Paleozoic (Middle Silurian – Late Carboniferous) and the Mesozoic (Cretaceous) using the new technology in the Appalachia and Atlantic Coastal Plain.

How are students further supported?

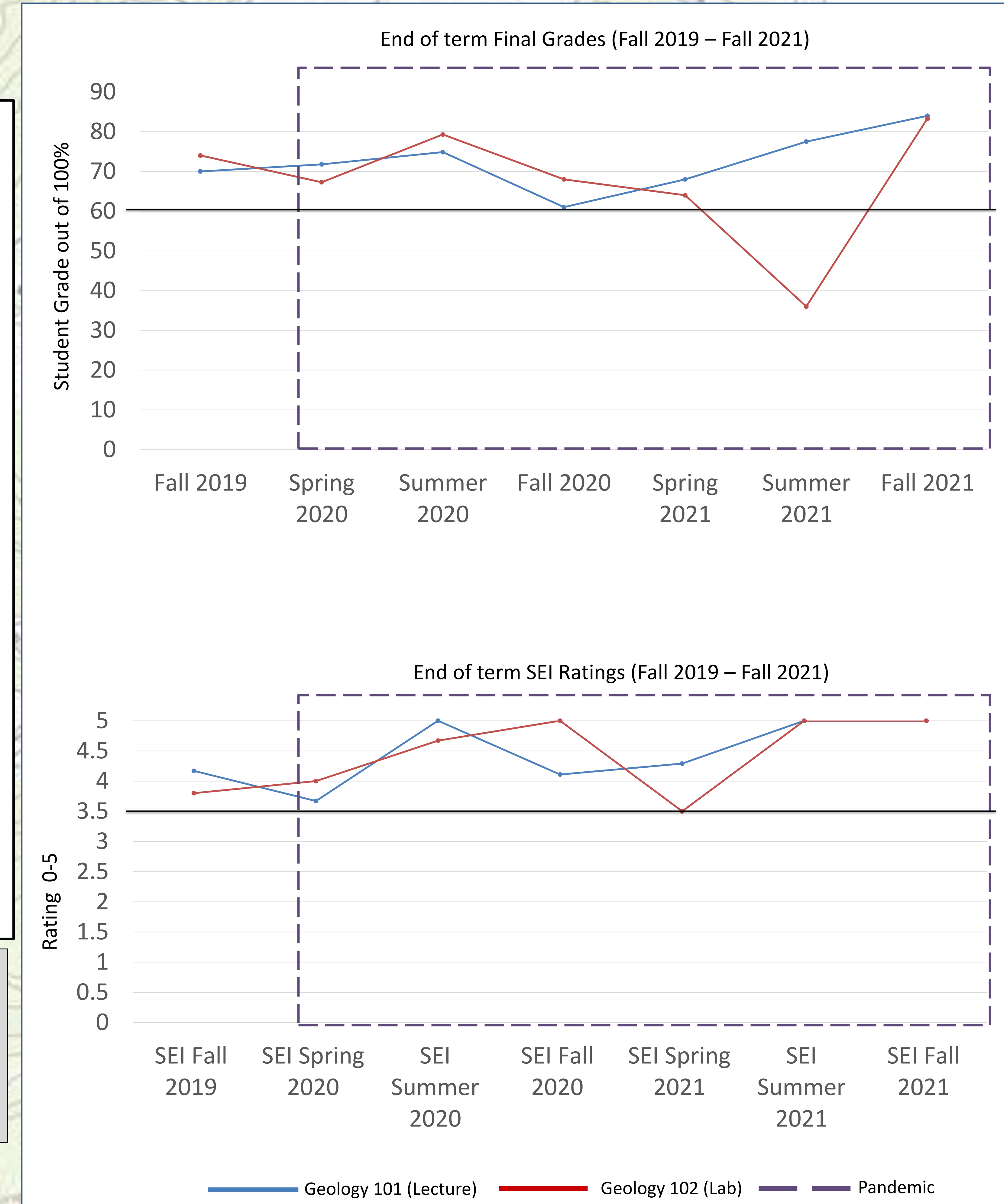


A Google Drive Containing:
Instructor PowerPoints
Study Guides
Custom Lab Assignments
Academic Papers
Library Guides



A Youtube channel Containing:
Recorded Lectures
Virtual Fieldtrips

Data Collected



Data suggests that the use of the TiG grant, and innovative teaching did help overall student learning satisfaction despite the pandemic. Grants such as these allow the instructor to improve the classroom learning experience, cultivate lifelong learners, and allow for retention and / or possible recruitment.

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