

Fostering Academic Engagement

Enhancing Student Focus Through Optimized Classroom Environments in Secondary Science Education

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Problem of Practice

Distractions in the classroom environment can significantly impact students' focus and learning outcomes. The presence of external stimuli like noise, electronic devices, or irrelevant discussions can divert students' attention away from the lesson material, leading to reduced comprehension and retention. Consequently, these disruptions hinder the overall effectiveness of teaching and hinder students' ability to engage deeply with the subject matter.



Purpose of study

The purpose of this study is to identify the most common distractions in the classroom environment and ways to mitigate the impact on students.

- How can the classroom environment positively impact student focus in Secondary science classrooms?
- What practices do science teachers use to engage students in their learning?

Rationale

The research data suggests that the classroom environment does affect student performance such as the positive impact of blue-enriched lighting on students' cognitive performance (Keis et al., 2014).

Researchers frequently connect the physical classroom environment with learning styles (Burke 2004). The focus of this research is to identify aspects in the classroom environment which are common distractions amongst students in order to set-up optimal classroom spaces.



Research Design and Method

- Quantitative and Qualitative data collection
Survey students gathering information on their personal preferences. Opportunity for written responses to gather more specific information.

1. Are there any distractions in the classroom that you believe hinder your ability to stay focused during science lessons? If so, how do you suggest addressing them?
2. In your opinion, what changes or improvements could be made to the classroom environment to better support your focus and learning in science class?

Interview staff and ask questions such as the following:

- In your experience, what factors do you believe contribute to distractions in the science classroom? How do you manage or mitigate these distractions?

- Data analysis and report

Knowledge Mobiliation

- Discussions with students on how to minimize distractions in the classroom
- Professional development sessions to share research results and best practices amongst colleagues
- Information sessions with parents to provide information on how to reduce external distractions at home for students
- Publication on local school district website



Significance of Study

Classroom physical environment affects morale and student learning.

Including students in creating the physical environment can enhance that environment, increase the feeling of classroom community, and give students a sense of empowerment.

The environment should match the objectives, both in terms of human interaction and the instructional approach.

The research findings will provide rationale for districts to fund improvements on lighting, soundproofing and temperature regulation within schools.

Resources

Burke, K., Burke-Samide, B. Required Changes in the Classroom Environment: It's a Matter of Design. *The clearing house*. 2004, 77 (6), 236-239.

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Martella, R. C., Nelson, J. R., & Marchand-Martella, N. E. (2003). *Managing Disruptive Behaviors in the Schools* (pp. 136-138). Pearson Education, Inc.

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