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Studying the Problem of Practice

MODULE 2

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Problem of Practice

Teachers generally do not have control over the physical space in which they teach. The classroom could be a portable, built decades ago, or be a brand-new building. What we can typically change is aspects inside the space such as lighting, furniture, decorations, etc. We want to create a space that is welcoming to all students. This can mean different things to each person. If you have a student with ADHD or Autism, they may be distracted or overstimulated by bright lights and busy walls. A student with anxiety may require a quiet space whereas another who is tired all the time may not benefit from dim lighting and soft music. Reviewing my professional resources, I came across a brief section on managing behavior within the classroom which focused on effective classroom and seating arrangements (Martella et al., 2003). The advice is logical, ensuring students can see the board, having materials accessible as needed such as a pencil sharpener. The book does not go beyond the basics. Extending beyond desk placement, Marzano et al., mentions the emphasis in decorating the classroom should be functionality as opposed to “pretty” (2003).

Further searching on Omni found multiple articles regarding classroom environment. Some are specific to one sense such as Keis et al., 2014 and Winterbottom 2009 which both focus on lighting in the classroom. For the type of research I am interested in, the article from Burke (2004) addresses multiple factors in the classroom environment and summarizes that students should not be expected to change their environmental preferences or to learn regardless of them. This leads me to a survey approach which would include the students asking what their preferences are regarding their learning needs. This type of research would be something that would need to be ongoing with each class as the composition of students change. With universal design for learning teachers approach their learning materials so that everyone can be successful. By surveying students and teachers, I expect to find some themes that would apply to everyone and can improve focus and concentration in the Secondary science classroom. The push-in model is popular in our district so support staff would also be surveyed as to their experience in the science classroom.

I am curious as to the potential change in student focus since the pandemic. During the times of online learning and increase in the use of technology what kind of impact has this caused for student concentration? Have we become more reliant on technology? If we cannot return to the pre-pandemic classroom, what does the “new normal” look like?

INQUIRY QUESTION

What changes to the environment in a Secondary science classroom improve student focus?

Instrument Development

INTERVIEW QUESTIONS [FOR CLASSROOM TEACHERS – WITH MINOR ADAPTATIONS, SIMILAR QUESTIONS MAY BE ASKED TO SUPPORT STAFF (ELL, RESOURCE, AND SPECIAL EDUCATION ASSISTANTS)]

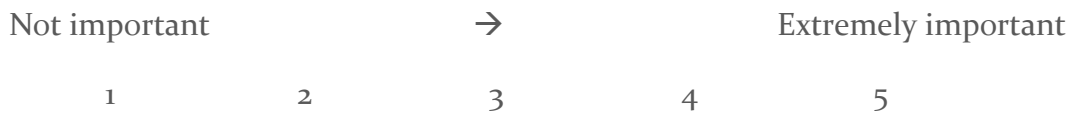
1. How do you currently structure the physical layout of your science classroom to promote student focus and engagement?
2. In your experience, what factors do you believe contribute to distractions in the science classroom? How do you manage or mitigate these distractions?
3. Have you ever experimented with flexible seating arrangements or alternative classroom setups? How have these changes affected student focus and engagement in the science classroom?
4. Lighting can significantly impact the learning environment. Have you considered the lighting conditions in your classroom and its effect on student focus? If so, how have you optimized lighting to improve student attentiveness?
5. Do you encourage student input in designing the classroom environment? How do you ensure that student preferences align with creating a focused and productive learning space?

SURVEY QUESTIONS (FOR STUDENTS – CAN BE ADAPTED FOR ADULTS)

1. What is your current age? (Select one)
 - a. 12 years old
 - b. 13 years old
 - c. 14 years old

- d. 15 years old
- e. 16 years old
- f. 17 years old
- g. 18 years old

2. On a scale of 1 to 5 (with 1 being "not important" and 5 being "extremely important"), how much do you think the classroom environment affects your ability to focus and concentrate during science lessons? (please circle one)



3. Consider your five senses, what helps to improve focus and concentration in class? (Examples are given to provide a starting point for your short answer)
 - a. What you see (posters on the wall, lighting – bright or dim)
 - b. What you hear (quiet, soft music, low conversation)
 - c. What you smell (examples: no smell, diffusing essential oils)
 - d. What you can touch (what kind of seat you like, using fidget tools)
 - e. What you can taste (drinking water, eating a snack)
4. Have you noticed any recent changes to the classroom environment that have improved your focus during science lessons? If yes, please describe those changes.
5. 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?
6. Would you prefer a flexible seating arrangement in the science classroom? How do you think it might impact your focus and learning experience?
7. How do visual aids, posters, or other classroom decorations influence your focus and interest in science topics?

8. Does the use of technology in the classroom (e.g., interactive displays, educational apps, etc.) help or hinder your ability to stay focused during science lessons?
9. In your opinion, what changes or improvements could be made to the classroom environment to better support your focus and learning in science class?

Sources

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