



# STEM LEARNING CENTER UPDATES

## Newsletter Welcome

Hello! Welcome to the STEM Learning Center newsletter! While I was an adviser on campus, our colleges Director of Advising started a monthly newsletter that gave key information regarding the advising within the college. Likewise, I would like to use this news letter to update you all on key information and things happening within the STEM Learning Center. At the beginning of each month, I would like to have an update of things going on in the STEM Learning Center and present those updates in this newsletter! From tips that can help in the learning consultations, to general updates to be mindful of as the month progresses, this newsletter is designed to provide a more comprehensive of things happening in the STEM Learning Center. In addition, to continue to grow the program, each newsletter will have some information regarding emerging research when it comes to learning development theory. If you have anything you would like covered in an upcoming newsletter, please let me know!

- Nick Haas-Brown

## The First Three Weeks

On behalf of the Foundational STEM Collaborative leadership team, I want to express how proud we are of all our Learning Consultants. Even though the payroll process delayed the start of some of you, the first three weeks exceeded our expectations. The way you all handled yourselves in your consultations and the frequent changes/updates as we got started showed true professionalism. While the challenges we experienced in the first three weeks were minimal, thank you for stepping up and assisting us as we worked through some logistics that needed adjusted in real time.

Even though there were challenges, the successes of the first three weeks were there as well! On the day of the Open House (September 19th) we had nearly 40 students stop by throughout the day to familiarize themselves with the Learning Center. From there the Learning Consultants jumped right into assisting students as it was in the middle of the first set of exams for many of the Chemistry and Math courses. In the first three weeks we saw nearly 200 students access the STEM Learning Center, either through learning consultations or to come in and study. As we work on more ideas to get students to engage with our center, we value your input and are open to feedback you all may have!

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### Special Points of Interest

- Any concerns regarding payroll and missed sign ins and outs should be put into the Excel file on TEAMS
- Midterm campaign going out to reach students struggling! We are hoping to see an increase in center usage!
- Check out the upcoming events on page three! If you have any suggestions regarding good ways to attract students, please let me know!



# Learning Development Theory: Learning Styles

During our first training of the semester, we discussed thinking through different learning styles when running into walls when it comes to student understanding. It is important to keep in mind how we can utilize learning styles to help students overcome some of the roadblocks making it difficult to grasp certain concepts. In the late 1900s, educationalists Neil Fielding and Colleen Mills developed the VARK learning style model (Fleming & Mills, 1992). This learning style model breaks the learning styles down between Visual, Auditory, Read/Write, and Kinesthetic. As discussed in our first training, being able to modify our approach can assist students in better understanding their material.

**Visual:** Utilize diagrams showing movement and concepts (e.g. flowcharts, topic webs, etc.) to help these learners build connections of the material .

**Auditory:** Utilize the spoken word to develop understandings of the material. This is through aids like recording lecture, hearing explanations that help break down concepts.

**Read/Write:** Utilize books, PowerPoint slides, and writing detailed notes to process their understanding of the material.

**Kinesthetic:** Utilize two things, movement and understanding real-world application of the information provided. Understanding and physically getting to “act” out the concepts helps solidify the understanding of the material.

In the study by Karim et al. (2022) the research team looked at the variations in the modalities medical students were using, whether uni-modal (one style) or multi-modal (two or more styles). Within their findings, they saw that out of 1004 students studied, nearly 62% of the students worked within a multimodal frame work. Furthermore, when looking at the learning styles that the students were using, there were significantly stronger correlations, when auditory and kinesthetic styles were able to be paired with various teaching styles. The teaching styles utilized included: bedside teaching (students at patient bedsides), tutorials, practical sessions, and the standard lecturing. From a survey the medical students favored the teaching styles that were more hands-on, rather than the straight lecture (Karim et al., 2022).

Based on some of the information presented in the study of the medical students, think through some ways we can better target students and their varying learning styles with a focus more toward the kinesthetic and auditory styles. If they are not sure, it may be helpful to investigate with the student on what learning style works best for them. Considering, of 915 students surveyed in the study above, 92% of those students did not know their learning style (Karim et al., 2022). As always, when students are struggling to grasp the information in the way you present it, it may be helpful to switch toward another type of learning style!

## Citations:

Fleming, N., & Mills, C. (1992). Not Another Inventory, Rather a Catalyst for Reflection. *To Improve the Academy*, 11, 137–143.

Karim, R., Taluk, H., Mondol, R., Ghose, R., & Hossain, I. (2022). Learning Styles of Undergraduate Medical Students and their Relation with Preferred Teaching-Learning Methods. *The Journal of Teachers Association RMC*, 35(2), 19–26.

## Important Dates Coming Up:

**10/15 — 6:00 pm: Staff Meeting/ Training**

**10/16 — 7:00 pm: STEM Student Engagement: Night at the Planetarium**

**10/23 — 2:30 pm: Student Workshop with REACH Student Success: Study Skills**

**10/24 — 1:30 pm: Student Workshop with REACH Student Success: Study Skills**

**10/26 — 9:30 am and 2:00 pm: Discover WVU Open House**

**11/8 — 3 pm: Professional Development Workshop: Using Your Strengths**

**11/9 — 9:30 am and 2:00 pm: Discover WVU Open House**

## Onward and Upward!

We are so proud of all that has been accomplished within this first month of operation in the STEM Learning Center. With any great program, we must not stagnate and continue to look forward and for new ways to better our outcomes.

Now that midterms are upon us, we are going to be sending out a campaign to Chem and Math students that are struggling (grade of a C or below) and may need additional assistance! With this campaign, we are hoping to see an increase of students and if all goes well, help them raise their grade by finals.

During our training on Tuesday, the 15th, we will also be covering a deeper training of Navigate. Navigate is the tool we are using to track the learning center usage and other information connected to the students that are utilizing our services. We are going to discuss how to make visit summaries to capture how we are assisting these students.

We could not do this without you all and your assistance is greatly appreciated! The final thing I would like to cover in this edition is feedback. Just as we are trying to get feedback from the students that use our services, we would also like feedback from you all. If there is anything you would like to see covered in trainings or your professional development we would love to hear it. In addition, if you feel there is anything we can do to better support you, please reach out and let Nick know either in-person or via email!