Mobile Technolgies Implementation Plan: Math at Its Best

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Despite new age math curriculum, middle school learners are often bored. Curriculum promises to be engaging, to get learners motivated and talking, but the truth is many learners lack fundamentals and therefore struggle with engagement. Basic math is a thing of the past. It appears all districts want their learners to have deep, rich conversations to promote critical thinking, but not all learners are equipped for such. As a middle school math teacher, the disparity between learners is obvious and vast. Some like-aged learners struggle to add single-digit numbers, while others are grasping systems of linear equations. While the curriculum encourages Turn and Talks, Gallery Walks, Pair and Shares, and the like to engage learners, it is typically the same students doing the talking and sharing, as others are void of knowledge to share.

Exter and Ashby (2022) explain the core mission of instructional design and educational technology professionals is to facilitate learning by designing experiences that empower individuals to master knowledge and skills, adaptable to formal settings like classrooms and online courses, as well as on-the-job training and informal learning. Educators can use apps to share information that “went well” in their classrooms as strategies to engage learners. Gaved, & Peasgood (2017, as cited in Parlakkiliç, 2019) note that because we mostly use mobile devices for informal, social content, making mobile learning incredibly common, most mobile educational apps are designed for on-demand content and to help us with specific tasks.

The following plan (see Appendix) is designed to aid middle school math educators to share lessons, parts of lessons, activities, templates, or any other interactions or materials that were successful in their student learning. Although the plan is designed for middle school learners, it can be easily tailored to any age group.

References

Exter, M., & Ashby, I. (2022). Lifelong learning of instructional design and educational technology professionals: a heutagogical approach. *TechTrends: Linking Research & Practice to Improve Learning*, *66*(2), 254–264. https://doi.org/10.1007/s11528-021-00657-x

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Appendix

Workplace Environment
Middle school math classrooms
Problem(s)
• Student engagement • Diversification • Low-interest curriculum • Differences in instructor strategies
Target Audience
Middle school math instructors
Purpose(s)
• Enhance math engagement • Create a more equitable learning environment • Differentiate learning • Increase communication among instructors
Goal(s)
1. To increase math engagement 2. To increase communication and create a community among math instructors 3. To provide differentiation/diversification to learners 4. To create a more equitable learning environment to learners
Mobile Technology
The Band app on cell phones or laptops
Ethical Dilemmas
• Authorization to video tape students and share with other instructors
Implementation Process (How will you implement the mobile technologies plan in the workplace environment)

Obtain permission to video tape learners from administration
Present at a GLM to garner interest
Create a PLC of teachers to design and implement the process.
• Set up group on app
• Create slideshow
  ○ explain the purpose
  ○ how to get started/join the app
  ○ communicate types of content to share
  ○ mini-lesson:
  ▪ how to record a Promethean Board lesson
  ▪ roll out
Roll out during GLM
• Teachers to download app using QR code
• Teachers to join group
• Mini-lesson on navigating app, including teacher-created video of the how-to's

- Mini-lesson on recording a Promethean Board lesson

Point people available for troubleshooting

Implementation Steps (The steps in the process, including how you will obtain approval from the administration if needed)

- Meet with administration to present idea for approval to video tape learners and share amongst instructors
- Record a lesson to share at GLM
- Set up a group on the Band app
- Meet with educators at GLM to begin implementation:
    - Use QR code to join
    - Show teacher-created video guiding instructors through Band app step-by-step implementation process
    - Share teacher-created video with educators
    - Show teacher-created video of “how-to” record and download, then upload a Promethean Board lesson onto Band app
- Follow up GLM to discuss:
    - Success of implementation and use
    - Other ideas/strategies