

BAACE Education for Developmental Mathematics Learners

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EDTC816 - Advanced Building Online Communities

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Introduction

Website: <https://edithadewumi.wixsite.com/baaceeducation>

Social Media URL: <https://www.facebook.com/baaceeducation/>

As scholars entered colleges or universities, the subject they dread the most is Mathematics because they are mostly unprepared or have anxiety towards the subject. Their mathematics' anxiety can create an uncomfortable moment on their learning outcome. Those learners tend to be annoyed and unsatisfied when they are unable to understand a mathematical concept or homework assignments. In fact, due to the anxiety, Baugher (2012) and Rochford (2004) studies indicate that most incoming college freshman, approximately sixty five percent, need remedial classes; especially developmental mathematics (Baugher, 2012, Rochford, 2004). Furthermore, students in remedial courses have an increase percent of Drop-Failure-Withdrawn (DFW) rates (Twigg, 2004; Baugher, 2012). The American Association of Community and Junior Colleges (AACJC) defines remedial or developmental education as an educational program that teach academically unprepared students the basic skills, they required to be more effective learners (AACJC, 1989). Furthermore, the use of technology in the twenty-first century classroom has been beneficial in those classes to help close the achievement gap in mathematics. Implementing technology positively impact and ease students and instructors' learning outcome (Sandholtz, Ringstaff, & Dwyer, 1997). Technology in the mathematics classroom has been a supplementary assessment that has helped many teachers and guide students to work on their own pace. The purpose of the "BAACE Education for Developmental Mathematics Learners" website or social media platform was to create a community where learners can feel comfortable learning and educators can share ideas, knowledges, resources, assessments, and build a strong community of practice.

Design and Methodology

Researchers show that sixty five percent of every community college students in the United States need to take developmental classes; furthermore, the drop-failure-withdrawal (DFW) percentage is between 40% to 50% in college remedial courses (Baugher, 2012, Twigg, 2004, and U.S. Census Bureau, 2010). In addition, some learners tend to have mathematics anxiety that can limit their ability to excel in their classroom. Alexander Martray (1989) described seven source of anxiety: giving schoolwork of tough questions that is due the next day, acknowledging that a math test is coming up, accessing the exam grade through email or school portal, opening a math book and observing many exercises, observing the class board that is full of math writing, registering for a math class, and walking in the classroom (García-Santillán *et al*, 2017, Alexander & Martray, 1989). As a result, technology in the twenty-first century classroom has been valuable in some remedial classrooms; institutions tried to implement various type of mathematical assessments to improve students' success and achievement gap. The purpose and mission of the online community is to guide diverse learners in understanding the subject and sharing ideas, assessments, lessons, games, stories, and activities that can benefit struggling learners.

The online community is a connected learning resource that use a sociocultural framework to show how learning operates and connect learning to the real world. The process of connected learning is focused toward education with a synthesis of ongoing research and design (Ito *et al*, 2013). This online community can benefit learners by sharing common ideas and goals that can help develop the community. With support from the community, learners and educators can use their personal goals and desired to be more creative; turn those interests into their educational achievements or career success. In order to ensure this online community is thriving,

the host needs to constantly assess the site or social media outlet and engage or communicate with participants; encouraging new members can also go a long way. Members can get involved in this online community if they perceived that the host is engaging and is professionally-personal. According to Deborah Ng (n.d.), it is important for the host to know the bounce rate, “which tells you [host] how long people stay on your website before bouncing out again”; a good bounce rate should be in a low level because it shows that participants are staying more and spending more time (Ng, n.d.). Furthermore, the host must be careful of what is being posted and pay attention to members who are not behaving well. In addition, the host must analyze the content to see if members are sharing or commenting on the post. If a member does comment, the host can reply or motivate other members to reply. For an online community to keep thriving, the host must share the website URL to other social media outlet; technology communication is always the key to online success.

The online community website or social media outlet is alluring because of the design. An attractive design can always appeal to members. The website design is colorful with an autumn theme color and appealing to any age group and special needs learners. According to Kraut & Resnick (2011), “A common mistake that online community designers make is to imagine all the topics that their hoped-for members might want to discuss and create separate forums or chatrooms for each topic.” Therefore, to avoid such mistake, the online community will have a forum to discuss and share ideas about various mathematics assessments, games, apps, and lessons from kindergarten to college level remedial; however, the main focus is higher education. Using the WIX platform, a “home” page was created to briefly introduce learners and educators to the educational site; “About” page was based on the purpose and mission statement; “Developmental Math & Assessments” page described and share mathematical ideas, games, and

lessons; “Forum” and “Members” allowed learners and educators to discuss and ask questions; “Contact” allowed all members to be in contact with the host.

Comparing and Contrasting to other existing sites

Other existing sites on social media similar to this mathematics community are Mathematics Education Researchers, American Mathematical Society, and Mathematical Association of America. The Mathematics Education Researchers is a forum for anyone working within mathematics education to ask questions relevant to mathematics education research, discuss pedagogy and supporting research, share research findings, post positive openings, share information about upcoming conference sessions, and discuss information relevant to the field of mathematics education. The American Mathematical Society is dedicated to advancing research and connecting the diverse global mathematics community. Mathematical Association of America is the largest community of mathematics. Although these online communities are competitive and engaging; some members do not communicate appropriately. Some of the mathematics research communities were not really responding to post or questions; so therefore, my community will be more engaging by encouraging members to respond to questions.

Conclusion

The mathematical online community has been designed to help learners and educators share and discuss ideas, lessons, assessments, games, and videos. The author previously did some research, analyzed, and reviewed other online community before creating BAACE Education. The purpose of this community was for learners to have the opportunity to come together, share common goal, exchange resources to build a stronger community. Both the website and social media platforms are very simple and easy to access. Finally, the community was established to produce a positive and warm atmosphere for a subject that is mostly fear by some learners.

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