Secretary's Report

To be presented Friday, April 11, 2014, at Ivy Tech Community College—Lafayette campus

The Indiana Mathematical Association of Two-Year-Colleges met Friday, October 18, 2013, on the campus of Ivy Tech Community College—Lawrence. We started the day in room A243 of the Fairbanks Center. At 9:35 am, President Gretchen Jordan, Ivy Tech—Kokomo, welcomed 32 members and guests. As part of her welcome, she expressed thanks to the presenters, and to Cengage for providing lunch. She announced that in the room next door, Cengage had presentations available describing Web-Assign and other programs and materials. She also informed us that we would not hold a board meeting today.

Brian Bright, Ivy Tech—Northwest, presented the first session. He provided an overview and history of MOOCs—massively open on-line courses. He described early correspondence course programs such as Newton/Leibnitz. These eventually led to the creation of Massachusetts Institute of Technology's Open Courseware in 2000, Khan Academy in 2006, iTunesU in 2007, and Coursera in 2012. These are four among many. The development of these systems has led to a conversation between the main stakeholders of open on-line courses: institutions, students and independent learners, and faculty.

Regarding institutions, Brian told us how MIT used open courseware originally to share teaching ideas. Unintentionally, it became a tool students could use to learn material. Nationwide, similar systems have provided opportunities for branding of an institution's academic materials, a method of delivering supplemental materials, and potentially a source of revenue. On the other hand, obtaining that revenue remains problematic, and many critic express concerns that open courseware may pose a threat to an institution's existence.

Another concern involves credentialing. Since a certificate is just a mouse-click away, how can a receiving institution or employer be sure of the quality of the education gained? As of this point, almost no one is awarding or accepting transferable credits. What are available are items such as badges from Khan Academy and Statements of Accomplishment from Coursera. ACE is working with Coursera.

Currently, Georgia Tech offers a Master of Science degree via ATT and Udacity, for a cost of about $7000, vs. $25,000 to an in-state on-campus student. Khan Academy badges five very specific feedback to learners. On the other hand, employers prefer traditional degrees from 'average' institutions vs. on-line degrees at a higher caliber institutions. For example, one survey showed that 42% of community college students learned less in an on-line course.

Brian described several of the formats used to provide and assess learning on-line: short videos, quizzes, homework, exams, and supplemental readings. However, very little technological innovation at first. Students were getting out what they put into the courses. Large numbers of students were teaching each other. This leads to the concept of 'learn what I want when I want.' Students can drop from 'lemons' quickly.

For faculty, MOOCs can be sites to provide reference materials to students, serve as a 'taller podium' for the professor's message. They can also serve as a source of concepts, methods, etc., for other instructors to imitate in courses they teach on local campuses.

Professor Bright did some checking to prepare for this presentation. He checked out several Coursera syllabi. He also asked his students, and found that some of his students had taken one or more of these courses, though mostly not math classes.

Owen Fry, Ivy Tech Community College—East Central gave us an update on the Pathways program as the second presentation. He described how the program makes use of the distinction between the 'ancient' part of the brain and the more 'modern' part of the brain. The ancient part does problem solving, while the modern part does information collecting. Owen provides us with a handout illustrating the intended pathways to success—technical, English, quantitative reasoning, and STEM. He also noted that currently there is no statistics pathway. Finally, he observed that the Emporium model appeared to be working for Foundations students, but not for students in successive classes.

The third program was a spirited presentation from Hank Lopez, IUPUI. He modeled the concepts he was describing for reaching students. 1: Give a good first impression. Dress the part, know students names. 2: Encourage self-efficacy. Believe that the instructor will do better and that students are going to better, and encourage the students to believe that they will do

better. 3: Repeat things. Be like the History Channel. 4: Use spiraling on tests. For example—test one is chapters 1 and 2, test two is 50% chapter 2 and 50% chapter 3, test three is 33% chapter 2, 33% chapter 3, and 33% chapter 4, and so on. The final exam is a reprise of the last test. 5: Watching does not work. Students must learn by doing. 6: The instructor travels the room in a 'T' pattern while presenting. The front of the room is the base of the T and the travel path proceeds between the desks in the middle aisle and back and forth behind the back row of the classroom. 7: No PCP (parking lot-class-parking lot) students. Ask if any students have done this. Work to convince each student to attend at least one non-class activity. Research indicates that this correlates with a 10% better chance to succeed in class.

Hank noted that socio-economic status is the strongest predictor of college success, but then posed the question: What about students who make a connection with the college via the instructor? What about a student that starts working upon arriving on campus?

He finished with several other observations and survey results. Foreign language and mathematics are big blocks to success. 70% of first-time freshmen at IUPUI need remedial math. But nationally only 10% or students starting with developmental mathematics ever take a college credit-earning math course. He always advises students to take a math course immediately on hitting campus.

Cengage provided lunch for us.

Business Meeting

President Jordan called the business meeting to order at 1:02 pm. 20 members were present. She had the officers introduce themselves.

We accepted the secretary's report, with the note that Hank Lopez had given out two $500 scholarship checks.

We accepted the treasurer's report, noting that the checking account held $486.63 prior to today's meeting. We also agreed to maintain annual dues at $10 for now.

New Business

Wendy Smith is willing to remain as Scholarship Committee chairperson. She requested that someone consider serving as a co-chair.

Old Business

We again discussed a web site coordinator. Diann Robinson has the sign-in information. The volunteer can contact Regional Vice-President Jim Ham for contact information to reach the AMATYC web coordinator for assistance. Tyler Corn volunteered to be INMATYC Web coordinator/Webmaster.

AMATYC has $400 aid to an attendee of the national meeting. As of now, no one has applied for the money.

To increase member numbers, after some discussion, we agreed to try to get information regarding meetings e-mailed sooner, and to send repeat messages.

Next, we discussed when and where we should hold the spring 2014 meeting. The best choices seemed to be either April 7th or 11th. After some further discussion, we tentatively set the location as Ivy Tech—Lafayette.

Marcia Brown agreed to generate a MS Word file of a newsletter, and serve as its editor.

We noted that we will hold elections at the spring meeting. We adjourned the meeting at 1:34 pm. President Jordan distributed the door prizes.

Board Meeting

None held.

Respectfully submitted, Renald Simmons, Professor of Mathematics, Vincennes University
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