Name: Muath Mahmoud Shiyyab

Title: Assistant Professor of Mathematics Education , Department of Curriculum and Instruction

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Education

Ph.D. 2001, University of Texas At Austin, U.S.A.

Dissertation Title Observation Study for Mathematics Instruction in Jordanian Secondary Schools.

1. Instructional strategies that promote meaning and conceptual understanding;

Emphasis

2. Strategies promote recall and memorization vs. teaching for higher-order cognitive thinking;

3. Strategies that promote encouragement, autonomy and persistence vs. passive learning

M.Sc. B.Sc. Same as the above/dual program (master -Ph.D. program)

1987, Yarmouk University, Jordan

Major Mathematics

Professional Experience

- Assistant Professor in the department of Mathematics. Philadelphia University. 2001-2007
- Assistant Professor in the department of Curriculum and Instruction. Yarmouk University. 2007- current.
- Consultant at the Queen Rania Teacher Academy (QRTA).
- Trainer at the Queen Rania Teacher Academy (QRTA).
- Lecturer at Jordan University for Science and Technology (teaching math courses).
- Author for the secondary mathematics teacher training program in GUST Kuwait sponsored by QRTA.
- Consultant for Authoring first grade mathematics textbook-ministry of education
- Consultant and Author for mathematics teacher training program ministry of education
- Consultant for authoring fourth, fifth and sixth grades mathematics textbook Ministry of education.
- Consultant for authoring eleventh and twelfth grades mathematics textbook Ministry of education

Research Interests

- Cognitive thinking in mathematics and mathematical pedagogy.
- Instructional strategies for teaching mathematics.
- Curriculum development.
- Conceptual understanding of Calculus, Qualitative Calculus.
- Misconceptions and remedial teaching in Mathematics.
- Professional development for mathematics Teacher.

Publications

Shiyyab, M., Elhersh, A., Mufleh, M. (2010). Understanding Students' Attitudes Toward the Use of Dynamic Models for Learning Mathematics. Elsevier. Procedia Social and Behavioral Sciences. 5 (2010) pp. 2282–2289.

- Shiyyab, M., Al- Shraifin, N., (2012). Evaluating Mathematics Major Students' Performance in Basic Concepts in Differentiation and Integration At Jordanian Universities: Analytical Study. American Journal of Scientific Research, No.72, pp. 114-134
- Shiyyab, M. (2012). Is there any Pedagogy of Mathematics Teaching in Jordan? Analytical Study. European Journal Of Scientific Research. V. 89, No. 1, pp. 51-63
- Shiyyab, M., (2013). Role of Dynamic Technology in Improving the Awareness of the Functional Potential of mathematical Knowledge. <u>Research Journal of International Studies</u>. Issue No. 6, pp.7-21.
- Shiyyab, M., (2013). How Could a Student Discover Something He/She Does Not Know It

Before?: What Professional Development Mathematic Teachers Do Need?

Studies in Mathematical Science. V. 6, No. 2, 2013, pp.104-117.

- Shiyyab, M., (2019). Interrogation of Silent Features, Graphing Functions, Creative Reasoning and Function sense. (soon will be sent to publication).
- Shiyyab, M., (2019). Can Time Of Questioning, "Before or After" Operate Higher Level Cognition Leverage Of Software in developing Problem Solving?. (soon will be send o publication)
- Shiyyab, M., (2019). Innovative Graphing Skills Through Interrogation Of Silent Ingredients. (soon will be send o publication)
- Shiyyab, M., Ta'ani, O., (2019). What Fabric do our mathematics Teacher needs? Interweaving Content and Pedagogy in Teaching and Learning to teach Mathematics: Closing the Chasm Between Discrete and Continuous Mathematics. (soon will be send o publication)

Other Publications

Dissertation: Observational Study for Mathematics Instruction in Jordanian Secondary School. U.T. Austin. **Conferences**

- World conference on psychology, counseling and guidance (WCPCG-2010). Antalya, Turkish.
- Conference on the Psychology of teaching and learning, August 4,1997, at the University of Texas at Austin, Austin, U.S.A.
- The first conference for mathematics "mathematics is a life and fun". April 30,03 at Jaresh National University, Jaresh-Jordan.
- International Conference On Trends in Mathematics Education. June 23-25, 2003 at Lebanese American University, Beirut-Lebanon.
- Conference on problems related to teaching at college level, problems, thoughts, and solutions. July 17-2003, at the Jordan University of Science and technology, Irbid-Jordan
- The Sixth Jordanian International Congress of Mathematics (SJICM). August 31st –2004, at Yarmouk University, Irbid Jordan.

Teaching Experience

- Calculus I & II
- Computational mathematics
- Linear Algebra I & II
- Probability and Statistics
- Problem Solving
- Set theory
- Mathematics for engineers
- Pedagogy pf Mathematics

- Instructional strategies for teaching Mathematics I
- Instructional strategies for teaching mathematics II
- Designing and planning effective instruction
- Teaching and learning mathematics and science
- Improving understanding of mathematical concepts in school
- General instructional strategies for teaching
- Development of science and mathematics curriculum
- Characteristic of numbers and other mathematical concepts
- Instructional Design
- Individualized instruction
- Curriculum theory and its design
- Models and Strategies for Instruction
- Contemporary issues in Curriculum and Teaching of Mathematics
- Remedial Teaching in mathematics and assessment.
- Curriculum form theory to practice

Professional Memberships

NCTM member since 2000

The Jordanian Organization for mathematical science member since 2005

References

Professor Osama Ta'ani. Education Division-HCT-ADWC, P.O. Box: 41012, Abu Dhabi, United Arab Emirates Email: otaani@hct.ac.ae, Mobile Phone + 9712 206 2630

Professor Abdullah Beni - Abdulrahman, Chair, Curriculum and instruction. Yarmouk University, College of education, Curriculum and Methods of instruction (C&I). . Email: baniabdelrahman@gmail.com, Mobile no. 0799683330 Prof. Marilla Sviniki, Chair, Center of teaching effectiveness. University of Texas at Austin., main building, 2200

Austin, Texas, 78712, (512) 471-1488.

Dr. Kalid Heyasat, Chair, Department of Mathematics. University of Philadelphia. Mathematics Department, Amman, Jordan. Mobile no. 0777996268.

Prof. Hani Obiedat. Yarmouk University, College of Education, C&I. Email: hani.o@yu.edu.jo, Mobile no. 0777929536.