

# Hanan Ayoub Innabi

Curriculum Vitae

2018

## EDUCATIONAL BACKGROUND

**Ph.D., Mathematics Education** 1999

University of Nottingham, United Kingdom

Research title: Students' understanding of the relationship between "sample" and population"

Publisher: University of Nottingham (1999)

ASIN: B001NVQ3CE

**M.A., Mathematics Education** 1990

The University of Jordan, Amman

Research title: Aspects of critical thinking for secondary mathematics teachers in Jordan

**Higher Diploma in Education** 1985

The University of Jordan, Amman

**B.Sc., Mathematics** 1984

The University of Jordan, School of Science, Amman

## PROFESSIONAL EMPLOYMENT

### Senior Lecturer

Faculty of Education, Department of Pedagogical, curricular, and Professional Studies,

University of Gothenburg

March 2018 - present

### Consultant with the World Bank

January 2013- Aug 2017

### Associate Professor

Aug 2014 – Aug 2015

School of Education, Educational Sciences Department, Qatar University

### Associate Professor

June 2008 – Aug 2011

School of Education, Curriculum and Instruction Department, UAE University

### Assistant Professor

Sept 2001 – June 2008

School of Education, Curriculum and Instruction Department, UAE University

### Assistant Professor

Sept 2000 – Aug 2001

School of Education, Curriculum and Instruction Department, Hashemite University

### Visiting Lecturer

2000

School of Education, Curriculum and Instruction Department, UAE University

### Researcher

Jan 1992 – Sept 2000

National Center for Human Resources Development, Jordan

### Mathematics Teacher

1984 – 1991

Government Secondary Schools and Private College, Amman, Jordan

## PUBLICATIONS

### Research Papers Published in Refereed International Journals

- 1) Innabi, H., & Dodeen, H. (2018). Gender Differences in Mathematics Achievement in Jordan: A Differential Item Functioning Analysis of the 2015 TIMSS, *School Science and Mathematics*, v118 n3-4 p127-137.
- 2) Dodeen, H., & Innabi, H. (2008). Sex-related differential item functioning (DIF) analysis of TIMSS. *Dirasat Educational Sciences*, 35(Supplement – December), 697-705.
- 3) Innabi, H. (2007). Factors considered by secondary students when judging the validity of a given statistical generalization. *International Electronic Journal of Mathematics Education. Special Issue. Emerging Research in Statistics Education*, 3(2).
- 4) Innabi, H., & El Sheikh, O. (2007). The change in mathematics teachers' perceptions of critical thinking after 15 years of educational reform in Jordan. *Educational Studies in Mathematics*, 64(1), 45-68.
- 5) Innabi, H., & Dodeen, H. (2006). Content analysis of gender-related differential items functioning TIMSS items in mathematics in Jordan. *School Science and Mathematics*, 106(8), 328-337.
- 6) Innabi, H. (2005). The relationship between mathematical skills and Arabic reading comprehension among United Arab Emirates University students. *International Journal for Research in Education (IJRE)*. 18(22), 37-50.

### Research Papers Published in Refereed Arabic Journals

- 1) Innabi, H. (2007). Teaching arithmetic mean for 6<sup>th</sup> grade's students using the visual approach: An action research. *Mathematic Education Journal*, 10. [in Arabic].
- 2) Innabi, H. (2006). The perceptions of UAE principals regarding the new vision of teaching mathematics. *Studies in curriculum and instruction, Egypt*, 113(April), 59-84. [in Arabic].

### Papers Presented in International Conferences (appeared in proceedings)

1. Innabi, H. (2018). Teaching statistics for sustainability. In: M. A. Sorto, A. White, & L. Guyot (Eds.), Looking back, looking forward. Proceedings of the Tenth International Conference on Teaching Statistics (ICOTS10, July, 2018), Kyoto, Japan. Voorburg, The Netherlands: International Statistical Institute. iase-web.org [© 2018 ISI/IASE] [http://iase-web.org/icots/10/proceedings/pdfs/ICOTS10\\_1F3.pdf](http://iase-web.org/icots/10/proceedings/pdfs/ICOTS10_1F3.pdf)
2. Innabi, H. (2018). Modifying the traditional public view of mathematics. In E. Bergqvist, M. Österholm, C. Granberg, & L. Sumpter (Eds), Proceedings of the 42nd Conference of the International Group for the Psychology of Mathematics Education (v5, p74), July 3-8, 2018. Umeå, Sweden.
3. Innabi, H. (2017). Gender gap in mathematics achievement in Jordan. In J. Morska & A. Rogerson (Eds), Proceedings of the 14<sup>th</sup> International Conference of mathematics education for the future project. *Challenges in Mathematics Education for the Next*

*Decade* (pp. 160-164) Sep. 10–15, 2017, Balatonfüred, Hungary.  
<http://personal.psu.edu/pto2/ConferenceProceedingsForeword>

4. Innabi, H. (2015). Analytical view of statistics and probability curriculum standards in Qatar. *QScience Proceedings, Conference on Education 2015*.  
<http://dx.doi.org/qproc.2015.coe.29>
5. Innabi, H. (2014). Teaching statistics in the Arab countries: The ambitions and the needs. In K. Makar, B. de Sousa, & R. Gould (Eds.), *Sustainability in statistics education. Proceedings of the Ninth International Conference on Teaching Statistics (ICOTS9, July, 2014)*, Flagstaff, Arizona, USA. Voorburg, The Netherlands: International Statistical Institute. [iase-web.org](http://iase-web.org) [© 2014 ISI/IASE] [https://iase-web.org/icots/9/proceedings/pdfs/ICOTS9\\_C286\\_INNABI.pdf](https://iase-web.org/icots/9/proceedings/pdfs/ICOTS9_C286_INNABI.pdf)
6. Innabi, H. (2009). A model to develop mathematics education: Modify the public traditional perceptions of mathematics—case of UAE schools’ principals. In: L. Paditz & A. Rogerson (Eds), *Proceedings of the Tenth International Conference of Models in Developing Mathematics Education. Models in Developing Mathematics Education*, (pp. 262-266), September 11–17. Dresden, Saxony, Germany.  
<http://www.qucosa.de/fileadmin/data/qucosa/documents/7923/Proceedings-636pages-Dresden2009.pdf>
7. Innabi, H. (2008). Teacher training program on teaching arithmetic mean by using the visual approach—a case study. (Refereed Paper). In C. Batanero, G. Burrill, C. Reading, & A. Rossman (Eds.), *Joint ICMI/IASE Study: Teaching Statistics in School Mathematics. Challenges for Teaching and Teacher Education. Proceedings of the ICMI Study 18 and 2008 IASE Round Table Conference*.  
<https://pdfs.semanticscholar.org/2485/0ef25f560839ff6620d9e5679c3e9b5fe639.pdf>
8. Innabi, H. (2007). Mathematics education candidates’ orientations toward the infusion approach in teaching mathematics and thinking skills. In: D. K. Pugalee, A. Rogerson, & A. Schinck (Eds), *Proceedings of The Ninth International Conference*, (pp. 313-317). *Mathematics Education in a Global Community*. September 7–12. Charlotte, USA.
9. Innabi, H. (2006). Factors considered by secondary students when judging the validity of a given statistical generalization. In: A. Rossman, & B. Chance. *Proceedings of the 7<sup>th</sup> international conference of teaching statistics. Working cooperatively in statistics education*, Salvador (Bahia), Brazil, July 2-7, 2006 The International Association for Statistical Education. <https://www.ime.usp.br/~abe/ICOTS7/Proceedings/index.html>
10. Innabi, H. (2003). Aspects of critical thinking in classroom instruction of secondary school mathematics teacher in Jordan. In: A. Rogerson (Ed), *proceedings of the Sixth International Conference, Mathematics Education into the 21<sup>st</sup> Century Project, The Decidable and the Undecidable in Mathematics Education*. (pp. 124-129), September 19–25. Masaryk University, Brno, Czech Republic.
11. Innabi, H. (2002). Teaching statistics for critical thinking. In: B. Phillips (Ed). *Proceedings of The 6<sup>th</sup> International Conference on Teaching Statistics. Developing a Statistically Literate Society*. July 7-12. Cape Town, South Africa. [https://iase-web.org/documents/papers/icots6/2b3\\_inna.pdf](https://iase-web.org/documents/papers/icots6/2b3_inna.pdf)
12. Innabi, H. (1999). Students’ judgment of the validity of societal statistical generalization.

In: A. Rogerson (Ed), proceedings of the International Conference on Math Education into 21<sup>st</sup> Century. (pp. 188-197). *Societal Challenges, Issues and Approaches*. November 14-18, Cairo, Egypt.

### **Papers Presented in International Conferences**

1. Innabi, H. (2016). Strategies for teaching thinking skills: pre-service course for mathematics education candidates at UAEU. Paper presented at 13<sup>th</sup> International Congress on Mathematics Education (ICME), Hamburg, Germany.
2. Innabi, H. (2016). Effectiveness of a Professional Training Program to Modify Elementary School Principals' Perceptions about Teaching and Learning Mathematics (refreed paper). *First Inter-Regional Research Conference on Science and Mathematics Education*, November 26 and 27, 2016. American University of Beirut, Beirut, Lebanon.
3. Innabi, H. (2015). The Idea of variation in Mathematics Curriculum in Qatar. Paper presented at the mathematics Education for the Future Project, 13th International Conference. *Mathematics Education in a Connected World*, September 16-21, Catania, Italy. <http://directorymathsed.net/public/CataniaConferenceDocuments&Papers/>
4. Innabi, H. (2012). A need for mathematics literacy to modify publics' perceptions of the new vision of teaching and learning mathematics. Paper presented at the *Seventh International Conference on Science, Mathematics & Technology Education*. November 4-7. Muscat, Oman.
5. Innabi, H. (2005). Comparing strategies, one implicitly and one explicitly, for teaching mathematics through critical thinking. Paper presented at The Twenty-Fifth International Conference on Critical Thinking. *Teaching that Cultivates the Intellect*. July 11-14. Berkeley, California.
6. Innabi, H. (2002). Aspects of critical thinking in classroom instruction of secondary school mathematics teachers in Jordan. *The Twenty-Second International Conference on Critical Thinking*. July 16-19. Sonoma, California. USA.

### **National and Regional Conferences**

1. Innabi, H. (2009). Infusion approach to teaching critical thinking through teaching mathematics. *The Sixth Math Conference, Teaching Mathematics for Critical Thinking, Higher Colleges of Technology*. April 22-23. Abu Dhabi. UAE.
2. Innabi, H. (2009). Understanding the big ideas behind teaching science in elementary stage in UAE. *The Fifth Annual Research Forum: Improving Education Practice through Research*. April 21. Alain, UAE.
3. Innabi, H. (2009). Teaching science in first cycle grades (1-5) in UAE governorate schools. *The 10th Annual Research Conference of Research Affairs*. April 13-16. Alain. UAE.
4. Innabi, H. (2007). Infusion approach to teach mathematics and thinking skills for talents students. *Fifth Scientific Arabic Forum for Talented and Gifted*. July 28-29. Amman, Jordan.
5. Innabi, H. & Y. El-Emam. (2007). A need for mathematics literacy to modify the understanding of schools' communities of the new vision of teaching and learning mathematics. *The International Conference on School Reform: Challenges and Aspirations*. April 19-22. Dubai, UAE.
6. Innabi, H. (2006). Working collaboratively with school principals to promote their understanding of the new vision of teaching and learning mathematics. *The Third Annual HCT, UAEU, ZU Research Forum: Teaching and Learning in the 21<sup>st</sup> Century*. November 19. Dubai, UAE.

7. Innabi, H. & Y. El-Emam. (2006). A proposed training program for elementary school principals to promote their understanding of the new vision of teaching and learning mathematics. *UAEU 9<sup>th</sup> Research Conference*. April. Alain, UAE.
8. Innabi, H. (2006). The perceptions of UAE principals regarding the new vision of teaching mathematics. *UAEU 7<sup>th</sup> Research Conference*. April 22–24. Alain, UAE.
9. Innabi, H. (2005). Gender equity in mathematics and science: The need to go beyond the quantitative gender gap. *The First Annual Middle East Teachers of Science, Mathematics and Computing Strategies for Effective Learning in the Middle East*. April 26–28. Abu Dhabi. UAE.
10. Innabi, H. (2004). Necessity of awareness of the new vision in teaching mathematics. *New Vision in Teaching and Learning Mathematics and Its Application in the Economy and Administration Forum*. December 5–8. Muscat, Oman.
11. Innabi, H. (2004). Teaching and learning mathematics concepts. *First Scientific Forum for Teaching Mathematics and Science for 1<sup>st</sup>–3<sup>rd</sup> grades, Ras Al khaimh Educational Zone*. April 30. UAE.
12. (2003). Diversity in the UAE: Implications for teachers' education (co-authored with Satrawi, A & others). *International Conference on Redesigning Teacher Education for the Third Millennium*. October 21–23. Dubai, UAE.
13. Innabi, H. (2002). Assessing critical thinking in secondary school instruction for accountability. *International Conference on Secondary Education*. December. 22-24. Oman, Muscat.
14. Innabi, H. (2001). Assessing mathematics as a tool of communication. *United Arab Emirates Ministry of Education and Youths Conference on Future Trends towards Assessing and Evaluating Academic Achievement*. November 11–12. Abu Dhabi, UAE.
15. Innabi, H. (2001). Communication standard in teaching mathematics. *Conference on Teaching Mathematics and Science*. Al Elbayt University and Ministry of Education, May 31. Mafraq, Jordan.
16. Innabi, H. (1999). Highest and lowest achievement schools in Oman. *Monitoring and Learning Achievement Seminar*. UNICEF and Ministry of Education, December 6–8. Muscat, Oman.

### Other Publications

1. Innabi, H. (2011). *The current situation of Iraqi curricula*. Unpublished report. UNESCO, Iraq office. [in Arabic].
2. Innabi, H. (2009). *Assessment study of implementing “science for all” curricula in elementary governorate schools in UAE*. Editor: V. Billeh. Ministry of Education, Geo Projects, & UAEU. [in Arabic].
3. Innabi, H. (2009). Differences in the quality of mathematics that female and male students are learning in the Arab countries. *International Organization of Women and Mathematics Education Newsletter* 23(1).
4. Innabi, H. (2009). Teaching statistics: A new vision. *Al-Ain Educational Zone Journal, Ministry of Education*, 3, 86–114. [in Arabic].
5. Innabi, H. (2005). Statistics education in the United Arab Emirates. In: G. Schuyten (Ed), *IASE Review International Association for Statistics Education* (pp. 25- 26). December. <http://www.stat.auckland.ac.nz/~iase/>
6. Emam, Y., & Innabi, H. (2004). *Assessing students' learning*. For the national project training program for supervisors and principals on curriculum development in basic and secondary education. Ministry of Education , UAE. [in Arabic].
7. Innabi, H. (2004). *New strategies in teaching*. Prepared for curriculum department members in the Ministry of Education, UAE. [in Arabic].

8. Innabi, H. (2003). Teaching mathematics as a tool for thinking. *Spotlight on Education*, 3. Quarterly education news published online by UNICEF.
9. Innabi, H. (2003). Chapter in *Data Analysis*. For summer training program, Center for Excellence in Education, UAE. [in Arabic].
10. Innabi, H. (2002). Thinking literacy. *Al-Tamayuz Journal*. Hamdan Bin Rashid Al Maktoum Award for Educational Distinguished Academic Performance. Issue 1, Abu Dhabi. [in Arabic].
11. Innabi, H. (1999). *Fourth grade students' mathematical competencies in Jordan*. Amman: National Center for Human Research Development (NCHRD). [in Arabic].
12. Innabi, H. (1997). *Reform impact on Arabic language achievement of basic school in Jordan*. Amman: NCHRD. [in Arabic].
13. Innabi, H. (1996). *Training needs assessment of 12<sup>th</sup> grade teachers*. Amman: NCHRD. [in Arabic].
14. Innabi, H., & Qaysi, H. (1995). *Learning achievement of basic cycle students in mathematics*. Amman: NCHRD. [in Arabic].
15. Alnahr, T., & Innabi, H. (1995). *The relationship of teachers' classroom practices with students' achievement in and attitudes toward Arabic, science and mathematics*. Amman: NCHRD. [in Arabic].
16. El Sheikh, O., & Innabi, H. (1993). Instructional books: Think and discover—recognizing patterns. *Child studies*. [in Arabic].

### **TEACHING and PEDAGOGY EXPERIENCE**

During 14 years in the higher education institutions (in Jordan, UAE, Oman, and Qatar), I taught the following courses (two semesters each year, 16 week per semester, in average 12 hours per week):

Graduate Courses:

1. Teaching Mathematics for 9–12 Grades
2. Assessment of Learning and Teaching Mathematics
3. Advanced Methods of Teaching Mathematics
4. Mathematics Curriculum
5. Current Issues in Teaching and Learning

Also, I supervised six Master's theses on Mathematics Education.

Undergraduate Courses

1. Teaching Methods of Mathematics in Middle and Secondary Schools
2. Teaching Methods of Mathematics in Elementary School
3. Strategies in Teaching Thinking
4. Development of Science and Mathematics Concepts
5. Teaching Practicum (supervising candidates in early childhood, elementary, and secondary schools)
6. Measurement and Evaluation.
7. General Mathematics for Teachers.
8. Using Computers in Education.
9. Classroom Environment and Assessment in Secondary Schools
10. Assessment in the Elementary School
11. Capstone Experiences in Elementary Education: Mathematics and Science
12. Capstone Experiences in the Preparatory and Secondary Schools: Mathematics
13. Thinking Skills (University general course)
14. Strategies in Teaching Thinking Skills for All Subjects (e-course)

15. Research Methods (University general course)
16. Education Reform in Qatar
17. Classroom Management

#### Developing programs and courses

During 2002-2014 and within the International Accreditation (NCATE, and Quality Assurance) activities, Colleges of Education (UAE University, Qatar University, Sultan Qaboos University), I participated in developing the elementary school program, secondary school program, master's program, and early childhood program. Also, I developed several courses related to mathematics methods, assessment, thinking skills. In addition of developing many performance based assessment tools for the Curriculum and Instruction Department.

### **CONSULTATIONS and COLLABORATION**

#### **Capacity Building—Assessment and Evaluation**

2016, 2015 , 2013. Consultant with the World Bank for capacity building on “Developing National Assessment tests” for the Ministry of Education, Kingdom of Saudi Arabia.

2001–2016. Ministries of Education in UAE, Jordan, Oman. Conducted approximately 50 workshops on monitoring and assessment for teachers, supervisors, and school principals at all levels: early childhood, elementary, secondary, and college.

2004–2006. Curriculum standards movement. National project to train 500 supervisors and principals on curriculum development in basic and secondary education in the UAE. My role was preparing a training module on the domain of assessing students' learning in addition of conducting the workshops.

2004. Revision of Subjects' Learning Standards project. Lead a team in the curriculum department of the UAE Ministry of Education to revise mathematics curriculum learning outcomes and map the into K–12 mathematics textbooks.

1998. Consultant with UNICEF; conducted a three-week workshop on analyzing data and writing reports in the Sultanate of Oman.

1997. Consultant with UNICEF; conducted a one-week workshop for a team from the Sudan Ministry of Education on monitoring school performance.

#### **Teacher Training —Teaching and Learning Mathematics and Science**

2014-2015. Group leaders member in IMPUL-QU Lesson Study Project (International Math-teacher Professionalization using Lesson Study).

2000–2013. Ministries of Education and Universities. Conducted approximately 60 workshops on teaching and learning for teachers, supervisors, and school principals at all levels: early childhood, elementary, secondary, and college.

2003. Consultant with UNICEF in Algeria. Trained 30 teachers on “Thoughtfulness in the Classroom.”

2001. Consultant with UNICEF in North Iraq and Bagdad to train 120 mathematics supervisors and teachers on teaching and learning mathematics.

### **Capacity Building—Curriculum Development**

2001–2016. Ministries of Education. Conducted approximately 50 workshops on curriculum development for teachers, supervisors, and school principals at all levels: early childhood, elementary, secondary, and college.

2010–2011. Consultant with UNESCO on “Developing New Iraqi Curricula,” proposing a national project to evaluate the Iraqi curriculum. Providing several workshops for capacity building in “Developing an Iraqi Curriculum Framework.”

Part of my activities in this project can be seen here:

[http://www.ibe.unesco.org/sites/default/files/DohaW3\\_ConceptNote\\_2011.pdf](http://www.ibe.unesco.org/sites/default/files/DohaW3_ConceptNote_2011.pdf)

### **Monitoring and Assessment**

2016, Consultant with Kuwait Foundation for Advancement of Science (KFAS) on assessing teachers’ training programs in Kuwait that based on the new curriculum.

2016-2017, Consultant with Kuwait Foundation for Advancement of Science (KFAS) on assessing the new mathematics textbooks that based on the new curriculum.

2008–2009. Science curriculum in the UAE: Two-year national comprehensive study to evaluate the Arabic version of Harcourt science textbooks. Funded and supported by the Ministry of Education and Geo-Projects.

1992–2000. Monitoring Learning Achievement projects in Jordan, Oman, and Sudan through the National Center for Human Resources Development. Participated in the international mathematics and science study (TIMSS).

1994–1996. Consultant with UNICEF in the Sultanate of Oman, Ministry of Education. Piloted and administered study monitoring school performance.

### **Strategic Planning and Development**

2001-2011. Involved in strategic planning for the UAE University, college of Education. This included forming the college vision, mission, conceptual framework, and 12 standards to be achieved.

2012–2014. International Accreditation, developed the mathematics program based on the NCATE standards, College of Education, Sultan Qaboos University and Qatar University.

2000–2005, 2009–2010. International Accreditation, College of Education, UAEU. Member of the Diversity Committee and the Professional Development committee.

### **Coordinating Forums and Conferences**

2011. Coordinator for the Mathematics and Science Forum, UAEU and Ministry of Education.

2000. National coordinator for The International Conference on Mathematics Education (Mathematics for Life). Mathematics Education into the 21st Century project. November 18–22. Amman, Jordan.

1992–2000. Participated in organizing national, regional, and international forums and conferences at the National Center for Human Resources Development in Jordan.

### **EARLY ACTIVITIES**

2001–2004. Member in the higher a committee, Hamdan Bin Rashid Al Maktoum Award for Educational Distinguished Academic Performance. UAE.

2003. Produced a module for the Center for Excellence in Education Hamdan Prize for gifted students. UAE.

2003. Evaluated "Talents Olympiad" projects at the Center for Excellence in Education for the Hamdan Prize, UAE.

2001. Reviewed a report on *Quantitative Skills Test* for ministry of education, UAE.

2000–2001. Member of advisory board. Jubilee Center for Educational Excellence. Jordan.

1999. Produced modules for training programs on “Teaching for Thinking.” Center for Excellence in Education. Jordan.

1995. Participated in building a criterion test to measure 4<sup>th</sup>-grade students’ weaknesses in mathematics. Wrote the items that measured the higher-thinking skills.

1991. Produced a chapter on series and sequences topic for 11<sup>th</sup>-grade creative students for Jubilee School. Jordan.

1990. Produced calculus self-learning curriculum for Alqudes Open University, Jordan.

### **PROFESSIONAL MEMBERSHIPS**

2006–Present. Member of the National Council of Teacher of Mathematics

2005–2011 Representative of UAE in the IASE.

2002–Present. Member of the International Association for Statistical Education (IASE).

2000–Present. Member of the International Coordinating Committee at MEC21: The Mathematics Education into the 21<sup>st</sup> Century international project.

1999–Present. Member of Arab Council for the Gifted and Talented.

2005–Present. Member of International Statistical Institute.

2005- Present. UAE National Coordinator for the International Organization of Women and Mathematics Education.