

Curriculum Vitae

Dr. Mohammed F. M. Abu Owda

Associate Professor

Curriculum & Science Teaching Methods



Personal Profiles:

Name: Mohammed F. M. Abu Owda

Home Address: Al-Nasser Street, Gaza Strip, Palestine.

Work Address: The Islamic University of Gaza, Faculty of Education, Department of curriculum and Methodology, P.O. Box.108, Gaza, Palestinian National Authority, Palestine.

Tel (Work) 972-8-2823311

Tel (Home) + 972-8-2879949

Mobile: + 972-599605210

E-mail: modaa@iugaza.edu
modaa2013@gmail.com

Date of birth: 23th January 1982

Nationality: Palestinian

Marital status: Married with Five Children

Languages: Arabic (Native)
English (Good)

Education and Qualifications:

- **Associate prof**, "Curriculum and Science Teaching Methods", Faculty of Education, Islamic University of Gaza, 2021.
- **Assistant prof**, "Curriculum and Science Teaching Methods", Faculty of Education, Islamic University of Gaza, 2017.
- **PhD in Education** "Curriculum and Science Teaching Methods", Faculty of Education, Ain-shams University, 2012.
- **Master in Education** "Curriculum and Teaching Methods", Faculty of Education, Islamic University of Gaza, 2006.
- **Special Diploma** in Education, Faculty of Education, Islamic University of Gaza, 2005.
- **B.A.** Biology, Faculty of Education, Islamic University of Gaza, 2003.

Areas of Expertise

E-learning, STEAM, AI, Modern Trends in teaching, Teaching and Learning, Professional Development, Pedagogical development, Sustainable Development, Institutional performance evaluation and program evaluation, Planning and quality.

Employment & Academic Experiences

- **2021** Associate Professor in Curriculum and Science Teaching Methods, Faculty of Education, Islamic University of Gaza, Palestine. (To Date)
- **2022 -2023** Consultant of Planning & Development to the Palestinian Ministry of Women.
- **2017** Supervisor & Discussant PhD & Master Thesis. (To Date)
- **2021 - 2025** Vice-Dean of Quality & Development, Islamic University, Palestine.
- **2022** Teaching Fellow, Department of Information Technology, Collage of Engineering and Information Technology, Palestine Ahliya University, Bethlehem-Palestine.
- **2020 - 2022** Consultant of "IESCO" International Educational Scientific and Cultural Org.
- **2020** Academic Visitor as a part of "e Training Fin Pal" project in cooperation with Tampere University, Finland.
- **2019 - 2021** Supervisor of Technology Center, Faculty of Education, Islamic University of Gaza.

- **2019** Academic Visitor, Faculty of Education, Humboldt University as a part of Erasmus + Project.
- **2018 – 2019** Head of Educational Sciences Department, Islamic University of Gaza.
- **2018** Research Fellow, Faculty of Education, (IIUM).
- **2017 - 2021** Assistant prof in Curriculum and Science Teaching Methods, Faculty of Education, Islamic University of Gaza, Palestine.
- **2017 - 2018** Supervisor of Science and Mathematics Center, Faculty of Education, Islamic University of Gaza.
- **2014 - 2016** Supervisor in the practicum, Faculty of Education, Islamic University of Gaza.
- **2014-2015** Director of E-Learning journal, Islamic University of Gaza.
- **2013 - 2014** E-Learning Consultant at the Islamic University of Gaza.
- **2009** Teaching Fellow, Faculty of Education, Ummah University in Gaza, Palestine.
- **2009 - 2011** Teaching Fellow, Faculty of Education, university college of applied sciences in Gaza, Palestine.
- **2006 - 2010** Coordinator for master program of Biological Science, Islamic University
- **2012 - 2014** of Gaza.

Teaching Experiences:

- **First: Bachelor's Degree Courses**
 - ✓ EDUC 3233 Teaching skills.
 - ✓ EDUC 2309 Curriculum analysis, Evaluation and Development.
 - ✓ EDUC 3315 Science Teaching Strategy.
 - ✓ EDUC 3316 Math's Teaching Strategy.
 - ✓ EDUC 3306 Technology & Science in Society.
 - ✓ EDUC 3204 Educational Technology.
 - ✓ EDUC 3313 Evaluation in Teaching
 - ✓ EDUC 6261 Teaching Methods
 - ✓ EDUC 2204 Scientific Research

- **Second: Master's Degree Courses**
 - ✓ EDUC 6208 Measuring and Evaluation Tools.

- ✓ EDUC 6305 Research Methods.
- ✓ EDUC 790105 Digital Technology in Education.
- ✓ EDUC 6261 Teaching Methods (1)
- ✓ EDUC 6262 Teaching Methods (2)
- **Third: PhD Degree Courses**
 - ✓ EDUC 9310 Curriculum from a Global Perspective.

Committee Membership:

- **2024** Member of the Steering Committee for External Relations, Islamic University of Gaza, Palestine.
- **2022 - 2023** Member of the Board of the Center for Excellence and E-Learning, Islamic University of Gaza, Palestine.
- **2022** Member of the Arbitration Committee for Artificial Intelligence Projects, Palestinian Ministry of Education.
- **2021 - 2023** Member of the Administrative Quality Council, Islamic University of Gaza.
- **2021- 2023** Member of the Academic Quality Council, Islamic University of Gaza.
- **2021 - 2022** Member of the Academic Programs Development Committee, Islamic University of Gaza, Palestine.
- **2020 - 2021** Member of the Arbitration Committee for the Taawon Distinguished Teacher Award.
- **2020** Head of the Preparatory Committee for the Conference on Modern Trends in Education Development, Faculty of Education, Islamic University of Gaza.
- **2018** Member of the External Relations and Projects Committee, Faculty of Education, Islamic University of Gaza.
- **2017** Member of the Media Committee for the Primary Stage Conference in Palestine – Prospects for Treatment and Development.
- **2016** Member of the Scientific Committee for the Palestinian Women's Conference – Building and Roles in the Face of Challenges.
- **2016** Head of the Scientific Committee for the International Palestinian Youth Conference.
- **2012 - 2013** Member of the Quality Committee, Biology Department, Faculty of Science, Islamic University of Gaza.

- **2010 - 2011** Member of the Job Titles Activation Committee.
- **2010 – 2011** Member of the Evaluation Committee for the Master’s Program in Biological Sciences, Faculty of Science, Islamic University of Gaza.
- **2010 - 2011** Member of the Committee for Developing the Master’s Program Description in Biotechnology, Islamic University of Gaza.
- **2007 – 2008** A member of school curriculum committee in biology department in the Islamic university.
- **2007 – 2008** A member of evaluating people with special needs curriculums (Down's Syndrome).

Conferences and Publications:

- Assessment of E-courses at the Islamic University in Light of the Quality Standards for E-course Design Responding to Sustainable Development Requirements (**in press**)
- The Impact of SIOP Model Based on Active Learning in Developing English Speaking Skills through Science Among 6th Graders. *Journal of Research & Method in Education (IOSR-JRME)*, 2025.
- The Effect of Employing ChatGPT to Enhance the Searchability among Female Researchers. *Creative Education (CE)*, 2025.
- The Effectiveness of a Training Program Based on Scientific Entrepreneurship to Develop the Skills of Solving Problems Among 11th Female Students in Palestine, *Saudi Journal of Educational & Psychological Studies*, 3 (6), 2025. ***Co-operative research***
- The Effect of Interaction between Active Learning Strategies and Cognitive Style on Reducing EFL Learners’ Reading Anxiety. *An-Najah University Journal for Research: Humanities*, 2025.
- The Effectiveness of a Training Program Based on Digital Content Design Supported by Thinking Skills to Develop the Teaching performance of Science Teachers. *International Journal of Educational and Psychological Studies*, 4 (14), 2025. ***Co-operative research***
- The Effectiveness of a Proposed Program in Light of (NCTM) Standards in Developing Deductive Thinking among High-Achieving Students in the 9th Graders. *IUG Journal of Education and Psychological Studies*, 3 (32), 2024. ***Co-operative research.***
- A competency-based Training Program to Improve the Teaching Performance of Palestinian Novice English Language Teachers at UNRWA Schools. *IUG Journal of Education and Psychological Studies*, 2 (32), 2024. ***Co-operative research.***
- Flipped Learning Based on Web Quest and Its Effect in Improving Physical Sense among 11th Graders. *IUG Journal of Education and Psychological Studies*, 5 (31), 2023. ***Co-operative research.***

- The Effect of a Training Program Based on the Gamification in Developing Creative Teaching Skills Among English Teachers of Preparatory Stage. *IUG Journal of Education and Psychological Studies*, 4 (31), 2023. **Co-operative research.**
- The Effect of Employing a Developed Learning Unit in Chemistry in Light of the Principles of Green Chemistry to Develop Sustainable Environmental Awareness among 11th graders. *IUG Journal of Education and Psychological Studies*, 4 (31), 2023. **Co-operative research.**
- The Effectiveness of Teaching a Unit in Science and Life Curriculum which Designed in the light of the Developed 4Mat Model to Improve the Scientific Thinking Skills among 9th graders. *IUG Journal of Education and Psychological Studies*, 4 (31), 2023. **Co-operative research.**
- Assessment of E-courses at the Islamic University in Light of the Quality Standards for E-course Design Responding to Sustainable Development Requirements. *International Arab Conference on Quality Assurance in Higher Education*, University of Tunis El Manar, Tunis, 8-10 Nov 2023. (SCOPUS). **Co-operative research.**
- The Effect of Employing ChatGPT to Enhance the Searchability among Female Researchers. The *3RD International Conference on Research Challenges and Recent Trends in Applied and Humanitarian Sciences*" (RCRT 2023), Sulaimani, at Komar University of Science and Technology, 17-19 Sep 2023. **Co-operative research.**
- A Proposed Vision to Improve the Ranking of Palestinian Universities in (Times Rankings 2022) For Sustainable Development Goals. (SCOPUS). *Industry 4.0 to Industry 5.0. Studies in Systems, Decision and Control*, vol 470. Springer, Cham. https://doi.org/10.1007/978-3-031-28314-7_55. **Co-operative research.**
- The Impact of Teaching Artificial Intelligence Concepts and Tools in Improving Creative Thinking skills among Talented Students. *Technological Sustainability and Business Competitive Advantage* pp 267–279, *Internet of Things*. Springer, Cham. https://doi.org/10.1007/978-3-031-35525-7_16. **Co-operative research.**
- The Effectiveness of Teaching a Unit in Science and Life Curriculum which Designed in the light of the Developed 4Mat Model to Improve the Scientific Thinking Skills among 9th graders. *IUG Journal of Education and Psychological Studies*, 4 (31), 2023. **Co-operative research.**
- The Effect of Employing a Developed Learning Unit in Chemistry in Light of the Principles of Green Chemistry to Develop Sustainable Environmental Awareness among 11th graders. *IUG Journal of Educational and Psychological sciences*, 2023. **Co-operative research.**
- A proposed vision to meet the challenges of e-learning Corona pandemic (Covid-19) as a model. *IUG Journal of Umm Al-Qura University for Education and Psychological Studies*, 4 (31), 2023. **Co-operative research.**
- The Effectiveness of a Project-Based Learning Program Supported by the Creative Problem Solving in the Science Subject to Develop the 21st Century Skills among the 7th Graders in Palestine. *IUG Journal of Education and Psychological Studies*, 3 (30), 2022. **Co-operative research.**

- The Effectiveness of Teaching Science by Using Scientific Humor Approach to Provide the Basic Scientific Concepts to 3rd Graders. *IUG Journal of Education and Psychological Studies*, 4 (30), 2022. **Co-operative research.**
- The Level of Science Books Inclusion Prescribed for Students of the Upper Basic Stage of the International Dimensions (Pisa), *Journal of Al-Quds Open University for Educational and Psychological Research and Studies*, 40, 2022. **Co-operative research.**
- Evaluating the scientific content of science and life curriculum for students of basic grade in the light of profession and life skills. *IUG Journal of Education and Psychological Studies*, 29 (2), 2021. **Co-operative research.**
- Augmented Reality Technology, and It's Effect in Improving the Acceptance to Use it Among Students of 7th Graders in Medical Technology Unit. *Creative Education Journal*, 11 (12), 2020.
- Impact of Using Project Based Learning According to Integrative Approach to Improve Design Thinking skills among 9th Grade Students. *Journal of Al-Quds Open University for Educational and Psychological Research and Studies*, 11 (35), 2020. **Co-operative research.**
- The Palestinian Terrestrial Vertebrate Fauna Preserved at the Biology Exhibitions of the Universities of the Gaza Strip, *Research in Ecology*, 2(4), 2020. **Co-operative research.**
- Reflections of Authentic Assessment Application on the Students of Basic Stage in Gaza, *Journal of Al-Quds Open University for Educational and Psychological Research and Studies*, 11 (35), 2020. **Co-operative research.**
- The Effect of Employing Learning Environment Based on Hologram in Teaching Medical Technology to Develop Visual Thinking Skills for Seven Graders, *IUG Journal of Education and Psychological Studies*, 28 (7), p. 57-75, 2020. **Co-operative research.**
- Students' Self-Efficacy Towards Learning English Through Drama and CLIL. *Research Journal of Education*, 6(8), pp. 113-120, 2020. **Co-operative research.**
- The Effect of Philosophical Inquiry Program in Improving Academic Participation Among Secondary Graders in Malaysia Arabic School. *Research Journal of Education*, 6 (7), pp. 72-76, 2020. **Co-operative research.**
- The Effectiveness of an Educational Environment Based on Learning Entries for Developing Mathematical Communication Skills among Visually Impaired Students in Gaza. *IUG Journal of Education and Psychological Studies*, 28 (6), 2020. **Co-operative research.**
- The Effect of Employing Curriculum Based on Integral Activity to Develop Scientific Thinking Skills in Science and Life Course among 4th Grade Students in Gaza. *IUG Journal of Education and Psychological Studies*, 28 (4), 2020. **Co-operative research.**
- The Effect of STEM Curriculum Based on Islamic Perspective on 9th Grade Talented Female Students' Critical Thinking in Gaza. *International Journal of Elementary Education*, 8 (4), 80-85, 2019. **Co-operative research.**
- The Science Curriculum based on STEM Approach with Islamic Perspective and its effect on Improving Love of Learning among 9th students in Gaza. *Journal of Humanities and Social Science*, 24 (8), 33-38, 2019. **Co-operative research.**

- Effect of a Science Unit "Light & Life" designed according to the Integrative STEM approach on the Improvement of Scientific Practices among 9th grade students. *Journal of Research & Method in Education*, 9 (3), 46-50, 2019. **Co-operative research.**
- Designing a science curriculum model based on STEM with Islamic perspective for 9th talented students. *International Conference on Business, Education, Innovation & Social Sciences (ICBEISS 2019)*, (eISBN: 978-967-16859-3-8), 2019.
- The Effect of Using Solving Problems Strategy to Improve the Divergent Thinking Skills in Science Course among Female Students of Ninth Grade. *International Journal of Research in Education and Psychological*, Mar 2016. **Co-operative research.**
- The Effectiveness of Using Virtual Lab in Science Course to Improve Visual Thinking Skills among Female Students of the Ninth Grade. *International Journal of learning Management System (IJLMS)*, 3 (1), January 2015. **Co-operative research.**
- The Effect of Using Thinking Maps Strategy to Improve Science Processes in Science Course on Female Students of the Ninth Grade. *Science Journal of Education*, 2 (2), 2014, pp. 44-49. **Co-operative research.**
- Evaluation of Management Quality Processes Associated with the Islamic University Teacher According to Point of View. *The Fourth International Arab. Conference on Quality Assurance in Higher Education*, Zarqa University of Jordan, 1-3 April 2014. **Co-operative research.**
- Virtual Lab – is One of Virtual Environments. Introduced sheet paper for the study day practices, "virtual instructional environments", IUG, 10 Mar 2014.
- New Technique to Takle pushing up in Palestine. Introduced sheet paper for the study day practices, pushing up in Palestine "Problems and solutions", IUG, 23 Dec 2013.
- Virtual Lab – New vision for learning. Introduced sheet paper for the study day practices, *vision and creative experiences in teaching*, Al-Aqsa University, 15 May 2013.
- Suggested model for quality standards of higher education institutions in Palestine. *The Tired International Arab Conference on Quality Assurance in Higher Education*, Al-Zaytoonah University of Jordan, 2-4 April 2013. **Co-operative research.**
- Directing the acceptance Policy of the Universities under the balance between high education output and Job market needs in the educational process in Gaza. *The International conference on the high education in the Arab world: future prospects*, IUG, 15-18 Jan 2013. **Co-operative research.**
- Program Using virtual lab in Bio-Technology to Improve the scientific inquiry skills in The Islamic University Students in Gaza. *Scientific research magazine in education, Women's Collage*, Ain Shams University, No13, 2012. **Co-operative research.**
- Program using virtual lab in Bio-Technology to Improve the attitude toward the achievement in The Islamic University Students in Gaza. *Scientific research magazine in education, Women's Collage*, Ain Shams University, (13), 2012. **Co-operative research.**
- Evaluation some of scientific thesis in the educational technology in the light of the essential curriculum standers. *High study conference and its rule in servicing society*. from 19 to 20 April 2011. **Co-operative research.**

- Mobile Learning – introduced vision for using mobile learning in education. Introduced Sheet paper for the study day technology and e-learning, IUG, 20 February 2011.
- Improving the Quality of Practical Training and micro-teaching program in the Technology Education Program at Universities and colleges in Gaza Strip. 2010. *Co-operative research.*
- Technology literacy level to the students of grade ten under the technology literacy sides technical education, *A Conference Technical and Vocational Education in Palestine (Reality, challenges and ambition)*, University college of applied sciences, 12-13, Oct 2008. *Co-operative research.*
- The evaluation of the education means and the samples which are found in the center of the means in the Islamic university according to the qualified in standers. *The Third educational conference in Palestine, Quality in general Palestinian education*, (as an Excellence entrance), IUG, 30-31 Oct 2007. *Co-operative research.*
- Analyzing the Scientific Content of the Technical Culture Curriculum for Tenth Grade students in Light of the Dimensions Technology Literacy, *IUG Journal of Education and Psychological Studies*, 15 (2), p. 845-873, 2007.

Research Grants and Awards:

- **2020 - Research Grant from My Care Humanitarian Care – Malaysia, Research Title:** "The Effectiveness of a Program Based on Artificial Intelligence (AI) to Develop the Skills of Creative Thinking, Scientific and Engineering Practices (SEP) among Talent 9th Graders".
- **2019 - Research Grant from IESCO International Educational Scientific and Cultural Organization – Malaysia, Research Title:** "Using STEM Approach with Islamic Perspective in the light of PBL entrance in science course and its impact on the development of critical thinking and love of learning skills among Talented Students of 9th graders".
- **2014 - Research Grant from the Scientific Research Council – Ministry of Education and Higher Education – Gaza.**
- **Research Title:** "Evaluation of Books Content of life skills in the three grades according to modern attitudes".
- **Research Title:** "Evaluation of main lines of the new technology curriculum in the according to AECT standards. Supporting research from Scientific Research Council, Ministry of Education and Higher Education in Gaza".
- **Research Title:** "The effect of using thinking maps strategy to improve science processes in science course on female students of the ninth grade. Supporting research from Scientific Research Council, Ministry of Education and Higher Education in Gaza".

- **2014** - Awarded by the Ministry of Education for the best scientific researcher, Humanity Studies.
- **2013 - Research Grant from the Islamic University – Gaza, Research Title:** "Using virtual labs in designing the practical experiments in biotechnology".
- **2010 - Research Grant from the World Bank and the European Union, Research Title:** "Improving the Quality of Technology Education Teacher Preparation Programs in the Universities and Colleges in Gaza Strip".

Sample of Arbitrated Researches:

- The Impact of a Training Program Based on Next Generation Science Standards (NGSS) on Reflective Thinking, for Science Teachers of the Upper Basic Stage in Palestine.
- The Study Aimed to Identify the Difficulties to the Application of Real-life Evaluation Tools in Southern Shouna Brigade Schools from the Point of View of the First Three Grades' Teachers.
- Building Green Chemistry Curriculum Standards at the Secondary Stage in the Kingdom of Saudi Arabia and Standardizing its levels Matrix
- Evaluation of the Teaching Performance of Female Middle School Science Teachers in the light of STEM Education from their Perspective.
- The Effect of a Teaching Method Based on Integrating Electronic Conceptual and Mental Maps on the Achievement in Biology of Tenth Grade Female Students at El-Adawiya Secondary School.

Sample of Master & PhD Letters were Supervised & Discussed:

- The effectiveness of using Flipped Learning based on WEB QUEST in developing skills of physics problem solving based on graphs and physical sense for 11th Grade students.
- The Impact of SIOP Model Based on Active Learning in Developing English Speaking Skills through Science Among 6th Graders.
- The Impact of Using Scientific Stations Strategy on Developing Deep Understanding Skills in Life Science among Tenth Grade Female students.
- The Effect of Employing Active Integrated Curriculum in Developing Scientific Thinking Skills in Science and Life Subject among Fourth Grade Students in Gaza.

- The Effectiveness of Employing Smart Learning Applications in Science and Life to Develop Scientific Problem-Solving Skills and Inferential Thinking Skills for Ninth Grade Students.