

**Name: Dr. Mercedes Barchilon Ben-Av**      Date : February, 2014

CURRICULUM VITAE AND LIST OF PUBLICATIONS

**Personal Details**

Date of immigration                      March, 1984

Email:  
mercedes@macam.ac.il

**Education:**

B.Sc and M.Sc                      1973-1978                      Mathematics                      Universidad Autonoma  
of Barcelona, Spain

M.Sc                      1984-1986                      Departement of  
Applied Mathematics                      Weizmann Institute of  
and Computer Science                      Science, Rehovot,  
Israel

Adaptation, oscillations and relay in a model for cAMP secretion.  
Prof. Lee Segel

Ph.D                      1987-1992                      Departement of                      Weizmann Institute of  
Applied Mathematics                      Science, Rehovot,  
and Computer Science                      Israel

The role of similarity , proximity and attention in visual grouping.  
Prof. Dov Sagi

**Employment History:**

2009- now	Givat Washington Academic College of Education	Senior Lecturer
2006- now	Achva College of Education	Senior Lecturer
1996-2006	Achva College of Education	Senior Lecturer and Head of the Computer Science Department
1994-1996	Weizmann Institute of Science, Rehovot, Israel	Development of teaching materials
1993-1994	Weizmann Institute of Science, Rehovot, Israel	Post Doctorate
1992-1993	Rutgers University, NJ, USA	Post Doctorate

1978-1984	High School N.S Bruges, Barcelona, Spain	Mathematics Teacher
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## Professional activities

### Courses taught:

3D Geometry	Undergraduate	Achva College of Education
Linear Algebra 1	Undergraduate	Achva College of Education
Linear Algebra 2	Undergraduate	Achva College of Education
Analytic Geometry 2	Undergraduate	Achva College of Education
Inequalities	Undergraduate	Achva College of Education
Powers and Roots	Undergraduate	Achva College of Education
Mathematical induction and Sequencies	Undergraduate	Achva College of Education
Math Analysis	Undergraduate	Givat Washington Academic College, Dept. of Mathematics
Ordinary Differential Equations	Undergraduate	Givat Washington Academic College, Dept. of Mathematics

## Scientific Publications:

### (a) Refereed articles in scientific journals - running numbers

1. M. Barchilon and L. A. Segel (1988)  
Adaptation, oscillations and relay in a model for cAMP secretion in cellular slime molds.  
Journal of Theoretical Biology, 133, 437-446.
2. M. Barchilon Ben-Av, D. Sagi and J. Braun (1992)  
Visual attention and perceptual grouping.  
Perception and Psychophysics, 52(3), 277-294.
3. M. Barchilon Ben-Av and D. Sagi (1995)  
Perceptual grouping by similarity and proximity: Experimental results can be predicted by intensity autocorrelations.  
Vision Research, 35(6), 853-866.
4. M. Barchilon Ben-Av and M. Shiffrar (1995)  
Disambiguating velocity estimates across image space.  
Vision Research, 35(20), 2889-2895.
5. V. Barchilon, E. Kotz, M. Barchilon Ben-Av, E. Glazer, M. Nyska (2008)  
A simple method of quantitatively evaluating the missing anterior glenoid area in anterior instability of the glenohumeral joint.  
Skeletal Radiology 37(8), 731-736.

6. E. Grobgeld, A. Teichman-Weinberg, E. Wasserman, M. Barchilon Ben-Av  
Role Perceptions of Academic Faculty Members at Colleges of Education.  
Teaching and Teacher Education (2012 submitted).

(c) Papers in Conference proceedings

1. A. Teichman-Weinberg and M. Barchilon Ben-Av (2002)  
Student-teachers Educational Computer Software programming using "Visual Basic".(Abstract)  
The fourth International Conference on Teacher Education. Teachers Education as a Social Mission: A Key to the Future.
2. E. Grobgeld, A. Teichman-Weinberg, E. Wasserman, and M. Barchilon- Ben Av, Defining the Role of Faculty Members of a Teacher Training Institution, in The Sixth International Conference on Excellence in Academia: Assessment of Faculty Research, Teaching and Community Service. 2009 Ariel University Center of Samaria, Israel.
3. M. Barchilon Ben-Av and E. Grobgeld (2010)  
The design of an instrument for the diagnosis of the role perceptions of faculty members at a teachers' college.  
Future Visions for Learning and Teaching. A joint conference of EARLI'S SIG Higher Education and SIG Teaching and Teacher Education in Kirkkonummi, Finland, June 13-16, 2010.
4. R. Ben-Av and M. Barchilon Ben-Av. Physics Laboratory in Your Pocket, 5th International Conference on Education and New Learning Technologies (EDULEARN13), July 1-3, 2013, Barcelona, Spain.
5. M. Barchilon Ben-Av and R. Ben-Av. Mathematics Laboratory in Your Smartphone, Education and Information Systems, Technologies and Applications, July 9-12, 2013, Orlando Florida USA.
6. E. Grobgeld, A. Teichman-Weinberg, E. Wasserman & M. Barchilon Ben-Av. (2013).  
Role Perceptions of Academic Faculty Members at Colleges of Education. Paper presented at the Changing Reality Through Education, The 6th International Conference on Teacher Education, Israel.

**Learning materials (in Hebrew):**

1. Regev, O., Ben-Av, M., Taizi, N. & Friedlander, A. (1996). Collection of Assessment Tasks on the Concept of Function. Rehovot: The Weizmann Institute of Science.
2. A course on the Conceptual Development of Negative Numbers was developed and has been implemented in a net-course format. (1996)

<http://www.weizmann.ac.il/sci-tea/math/open.htm> (in Hebrew)

