

NOA RAGONIS

Curriculum Vita

August 2021

1. Personal Details

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Google Scholar: [Noa Ragonis](#)

2. Higher Education

a. Undergraduate and graduate studies

Period of study	Name of institution and department	Degree acquired	Year of approval of degree
1981 - 1984	Bar Ilan University, Ramat-Gan, Israel Faculty of Exact Sciences, Computer Science and Mathematics track. Summa cum laude	B.Sc.	1984
1994 - 1997	Weizmann Institute of Science, Rehovot, Israel Department of Science Teaching Recipient of dean's prize for M.Sc. students. Thesis topic: Introduction to Expert Systems – Development and Evaluation of a Computer Science Curriculum. Dean's prize for excelling M.Sc. thesis.	M.Sc.	1997
1997 - 2004	Weizmann Institute of Science, Rehovot, Israel Department of Science Teaching Thesis topic: Teaching Object-Oriented Programming to High-School Novices. Department of Science Teaching's Orly Kaplan Prize for Outstanding Ph.D. Student. Recipient of the Orly Kaplan Prize for Outstanding Ph.D. Student.	Ph.D.	2005

b. Postdoctoral position

2006 - 2007	Technion – Israel Institute of Technology, Haifa, Israel Faculty of Education in Technology and Science Research topic: Development and evaluation of a disciplinary-pedagogy tutoring model for computer science prospective teachers. Recipient of research scholarship from the Israeli Council for Higher Education.	2007
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c. Teaching diploma and license

Year of Approval	Diploma	Name of Institution	Period of Study
1984	Teaching Diploma in Computer Science. Magna cum laude.	Bar Ilan University, Ramat-Gan, Israel	1983 - 1984
1987	Teaching License in Computer Science for Secondary Schools	Israel Ministry of Education	1986

3. Academic Ranks and Tenure in Institutes of Higher Education

Dates	Name of institution and department	Rank
1997	Beit Berl College	Teacher
2007	Technion Institute of Technology	Senior Lecturer (part-time)
2008	Beit Berl College	Tenure Lecturer
2011	Beit Berl College	Senior Lecturer

4. Offices and Positions in Academic Administration

Dates	Name of Institution	Office	Appointment
1999 - 2008	Beit Berl College	Computer Science Department, Faculty of Education	Head
2006 2015	Beit Berl College	Committees for Determining Principles and Rules for Online Courses	Head
2008 - 2012	Beit Berl College	The Management Team, School of Education	Member
2008 - 2012	Beit Berl College	The Curriculum Committee, School of Education	Chair
2013 - 2019	Beit Berl College	Faculty Council	Member
2008 - 2018	Beit Berl College	The College Academic Council	Member
2012 - 2018	Beit Berl College	The Center for Teaching Enhancement	Founder and Head
2015 - 2018	Beit Berl College	Erasmus+ project: TeachEx – Teaching excellence in Israel	Head Project
2019 - 2021	Beit Berl College	M.Teach. for Secondary Education	Head
2021 -	Beit Berl College	M.Ed. in Integrative STEM Education	Head

5. Scholarly Positions and Activities Outside Academic Institutions

a. Reviewing for international peer-reviewed academic journals and conferences

- ITiCSE - Conference on Innovation and Technology in Computer Science Education
- SIGCSE - The ACM Technical Symposium on Computer Science Education (20
- The ACM Transactions on Computing Education (TOCE), Journal on Educational Resources in Computing
- ACM Inroads – Educational research in advancing computing
- InSITE - Informing Science and IT Education
- ISSEP - Informatics in Schools: Situation, Evolution and Perspectives
- IOI - OLYMPIADS IN INFORMATICS
- Journal of Studies in Educational Evaluation
- Mentoring & Tutoring: Partnership in Learning

b. Doctoral review

Bizzarri, G. (2014). *Informatics education and teaching tools for secondary school learners*. Ph.D. in Computer Science and Applications, University of L'Aquila, Department of Computer Science. Supervisor: Luca Forlizzi, Department of Information Engineering, Computer Science and Mathematics (DISIM) Via Vetoio, I-67100 Coppito, L'Aquila, Italy.

c. Research proposal review for MOFET Institute

- From 2013 – 2020, eight proposals.
- The last three were:
 - 2016, Perceptions and Styles of Online Instruction in a Multicultural Environment: Toward successful online collaboration
 - 2018, Three-Dimensional Learning Environments for Enhancing Creativity and Computational Thinking
 - 2020, Investigating mathematics and/or physics Teachers as participators in their peers' professional growth

6. Participation in Scholarly Conferences

a. Active participation in international academic conferences

Date	Title of conference	Venue of conference	Role in conference	Presentation title
28-30, June, 2004	ITiCSE 2004	Leeds, UK	Poster	A Refreshing Approach to an Academic Seminar Course
23-27, February, 2005	SIGCSE 2005	St. Louis, MO USA	Paper presentation	On Understanding the Statics and Dynamics of Object-Oriented Programs
7-11, November, 2006	International Conference on Informatics in Secondary Schools— Evolution and Perspectives, ISSEP 2006	Vilnius, Lithuania	Tutorial presentation	Research-Based Guidelines for Teaching OOP.

Date	Title of conference	Venue of conference	Role in conference	Presentation title
June 30 - July 02, 2008	ITiCSE 2008	Madrid, Spain	Paper presentation	Tutoring Model for Promoting Teaching Skills of Prospective Computer Science Teachers
4-7, March, 2009	SIGCSE 2009	Chattanooga, TN USA	Paper presentation	Preparation of High School Computer Science Teachers: The Israeli Perspective
c10-13, March, 2010	SIGCSE 2010	Milwaukee, WI USA	Paper presentation	A Survey of Computer Science Teacher Preparation Programs in Israel Tells Us: Computer Science Deserves Designated High School Teacher Preparation!
9-12, March, 2011	SIGCSE 2011	Dallas, TX USA	Paper presentation	A Study on Attitudes and Emphases in Computer Science Teacher Preparation
26-29, October, 2011	ISEEP 2011	Bratislava, Slovak Republic	Paper presentation	Pre-Service Computer Science Teacher Training within the Professional Development School Collaboration Framework
1-5, July, 2012	ITiCSE 2012	Haifa, Israel	Paper presentation	Integrating the Teaching of Algorithmic Patterns into Computer Science Teacher Preparation Programs
5-7, December, 2012	Doctoral consortium	Druskininka, Lithuania	Presenter and students tutor	Qualitative Research Methodology in CS Education: My Principles and Examples
6-9, March, 2013	SIGCSE 2013	Denver, Colorado, USA	Paper presentation	What is it We are Asking: Interpreting Problem-Solving Questions in Computer Science and Linguistics
5-8, March, 2014	SIGCSE 2014	Atlanta, GA USA	Paper presentation	STEM Teaching as an Additional Profession for Scientists and Engineers: The Case of Computer Science Education
Jun 30 - Jul 4, 2014	InSITE 2014: Informing Science	Wollongong, Australia	Paper presentation	Drawing analogies between logic

Date	Title of conference	Venue of conference	Role in conference	Presentation title
	+ IT Education Conference			programming and natural language argumentation texts to scaffold learners' understanding
8-11, March, 2017	SIGCSE 2017 - Technical Symposium on Computer Science Education	Seattle, Washington, USA	Paper presentation	On the (mis) Understanding of the "this" Reference
10-12, October, 2018	ISSEP 2018 - International Conference on Informatics in Schools: Situation, Evolution, and Perspectives	Saint-Petersburg, Russia	Paper presentation	A Diagnostic Tool for Assessing Students' Perceptions and Misconceptions Regards the Current Object "this"
10-12, October, 2018	ISSEP 2018 - International Conference on Informatics in Schools: Situation, Evolution, and Perspectives	Saint-Petersburg, Russia	Paper presentation	Computational Thinking: Constructing the Perceptions of Pre-service Teachers from Various Disciplines
26-30, August, 2019	The 13th Conference of the European Science Education Research Association (ESERA)	Bologna, Italy	Poster presentation	A Community Shared Approach to a M.Ed. Program on Integrative STEM
26-30, August, 2019	The 13th Conference of the European Science Education Research Association (ESERA)	Bologna, Italy	Paper presentation	Integrative STEM M.Ed. Degree Aligning with Contemporary Perspectives in Academia and Industry
18-20, December, 2019	ISSEP 2019 - International Conference on Informatics in Schools: Situation, Evolution, and Perspectives	Larnaca, Cyprus	Paper presentation	What Are Computer Science Educators Interested in? The Case of SIGCSE Conferences

b. Active participation in international academic conferences in Israel

Date	Title of conference	Venue of conference	Role in conference	Presentation title
2-4, July, 2013	The 6th International Conference on Teacher Education – Changing Reality through Education	The Mofet Institute, Israel	Paper presentation	Higher-Order Thinking Skills as Reflected in Keywords in Questions in Two (Considerably) Different Disciplines: Linguistics and Computer Science
23-24, March, 2015	Educating the Net-Generation Conference: Political and Cultural Aspects	Beit Berl College, Israel	Paper presentation	Examining Innovative Thinking Among Undergraduate Students in Education.
24-26, June, 2019	The 7th International Conference on Teacher Education: The Story of Innovation in Teacher Education	The Mofet Institute, Israel	Round table presentation	Teachers' Attitudes Towards Using Online Assessment Tools to Diversify the Assessment Methods They Implement
24-26, June, 2019	The 7th International Conference on Teacher Education: The Story of Innovation in Teacher Education	The Mofet Institute, Israel	Paper presentation	Evaluating the Integration of Computers and Tablets in Teaching Students with Hearing Impairments

c. Active participation in national academic conferences in Israel

Date	Title of conference	Venue of conference	Role in conference	Presentation title
22, June, 2016	The 14th Annual METAL National Conference	Bar-Ilan University, Israel	Paper presentation	Preference of Learning Paths in an Online course: A Comparison Between Individual Learning and Small-Group Learning.
22, June, 2016	The 14TH Annual METAL National Conference	Bar-Ilan University, Israel	Poster presentation	What Do Students Choose to Study in a Seminar Dedicated to Evaluation in the Information age?

Date	Title of conference	Venue of conference	Role in conference	Presentation title
15, May, 2018	INFO 2018 - The 33rd Annual Conference & Exhibition; The Information World 2018: Innovation, content, technologies and applications - Opportunities and challenges,	Hilton Hotel, Tel-Aviv, Israel	Paper presentation	So What is innovation?
22, March, 2021	The Interdisciplinary Wonders of STEAM Education	The Mofet Institute, Israel	Steering Committee, and Panel Director	The interdisciplinary approach in STEAM: Diverse perspectives

d. Conferences of the National Teachers' Center for Computer Science Teaching

(conducted in Hebrew)

Date	Title of conference	Venue of conference	Role in conference	Presentation title
1, April, 2001	The Curriculum of the 3rd Matriculation Exam Unit	Tel-Aviv University, Tel-Aviv, Israel	Paper presentation	Logic Programming
13, November, 2001	Recursion and Its Teaching to High School Students	Ramat-Gan, Israel	Paper presentation	Recursion Through Paradigm Glasses
13, December, 2001	The 2nd National Conference of CS Teachers	Shfayim, Israel	Paper presentation	Experience Teaching Object-Oriented Programming to Novices.
31, January, 2002	Software Design	Weizmann Institute of Science, Rehovot, Israel	Paper presentation	Computational Models as Abstract Data Types
11, March, 2003	Visualization and Animation Tools for Teaching CS	Weizmann Institute of Science, Rehovot, Israel	Paper presentation	BlueJ – A Visualization Tool for Teaching Object-Oriented Programming
25, June, 2005	Programming Paradigms	Tel-Aviv University,	Paper presentation	First Experience Teaching Computer Science Foundations to

Date	Title of conference	Venue of conference	Role in conference	Presentation title
		Tel-Aviv, Israel		High School Students using Java
28, December, 2005	The 6th National Conference of CS Teachers	Achva College, Israel	Paper presentation	Points of Contradiction Between Procedural Programming and Object-Oriented Programming When Using the New Programming Languages
17, December, 2006	The 7th National Conference of CS Teachers	Beit Berl College, Israel	Paper presentation	Teaching Guidelines for Teaching Object-Oriented Programming to Novices
29, December, 2008	The 9th National Conference of CS Teachers	Technion – Institute of Technology, Haifa, Israel	Paper presentation	Pedagogical-Disciplinary Tutoring of Prospective Computer Science Teachers
13, December, 2015	The 15th National Conference of CS Teachers	Beit Berl College, Israel	Paper presentation	The Self Object “this” - What are We Talking About?
26-28, June, 2017	Summer Seminar for Leading CS Teachers	Ramat Rachel, Israel	Presentation and workshop	Computational Thinking - About What, Why and how

e. Organization of conferences or sessions at conferences, international and national

Date	Title of conference	Venue of conference	Role in conference
3-5, July, 2012	ITiCSE 2015, the 17th Annual Conference on Innovation and Technology in Computer Science Education	Haifa, Israel International	Member of the conference committee, working groups coordinator
6-8, July, 2015	ITiCSE 2015, the 20th Annual Conference on Innovation and Technology in Computer Science Education	Vilnius, Lithuania International	Member of the conference committee, working groups coordinator
18, June, 2018	The 12 th Annual ILAIS Conference - Association for Information Systems	Ashdod, Israel National	Head of session

7. International Invited Lectures / Workshops

a. In academia

Date	Place of Lecture	The Inviter	Presentation title
5-7, December, 2012	Vilnius, Lithuania	Vilnius University	(1) CS Teachers Preparation Programs ~ in the World. Expand on the Israeli System and on Teachers Preparation Programs (2) Secondary School Computer Science Curriculum ~ World Survey. Expand on the Israeli CS Curriculum (3) Secondary School Computer Science Curriculum ~ World Survey. Expand on the Israeli CS Curriculum

b. For high school teachers

Date	Place of Lecture	The Inviter	Presentation title
31, June, 2004	Leads, UK	University of Leads, Workshop at the Annual Seminar for Computer Science Teachers	Object-Oriented Programming for High School Novices
2, February, 2015	Beijing, China	RDFZ Seminar for High School Teacher	(1) The Challenge in Teaching CS; (2) Secondary School Computer Science Curriculum and Teachers Preparation Programs; (3) Object-Oriented Programming

8. Research Grants

Year	Role in Research	Co-Researchers	Research Topic	Funded by/ Amount	Total funding	Resulting Papers
2003-2004	Senior research associate	-	A new approach to teaching academic seminars in computer science	Beit Berl College, Research Committee	12,000 NIS	Poster at SIGCSE conference 2004
2009-2010	Senior research associate	-	Pedagogical patterns when teaching recursion in computer science	Beit Berl College, Research Committee	12,000 NIS	Published paper
2010-2011	Research associate	Dr. Gila Shilo		Beit Berl College, Research Committee	12,000 NIS	Published papers
2014-2016	Senior research associate	Prof. Orit Hazzan, Prof. Judith Gal-Ezer, Dr. Gila Shilo, Dr. Ronit Shmallo, Dr. Osnat Dagan	Teaching of OOP, integrating the disciplines of computer science and linguistics, integrating online learning tools in teachers training	Beit Berl College, Research Promotion Project	108,000 NIS	Published papers

9. Scholarships, Awards and Prizes

Year	Role in Research	Co-Researchers	Research Topic	Funded by/ Amount	Total funding	Resulting Papers
1997	Senior research associate	Prof. Mordechai Ben-Ari, Dr. Zahava Schrez	Teaching expert systems to high school student	Dean's prize for excelling M.Sc. thesis	2,500 NIS	M.Sc. thesis
2004	Senior research associate	Prof. Mordechai Ben-Ari	Teaching OOP to high-school novices	Department of Science Teaching's' Orly Kaplan Prize for Outstanding Ph.D. Student	8,000 NIS	Ph.D. thesis
2006-2007	Senior research associate	Prof. Orit Hazzan	Mentorship in the training of pre-service computer science teachers	Post-doctoral research scholarship from the Israeli Council for Higher Education	25,000 NIS	Published papers

10. Teaching

a. Courses taught in recent years (five years)

Beit Berl College, Faculty of Education

Year	Name of Course	Type of Course	Degree	Number of Students
2019-2020	Education and Teaching Research Seminar	Seminar	M.Teach.	25-30
2015-2020	Teaching in the Information Era Research Seminar	Seminar	M.Ed.	16-18
2020	Technological Pedagogical Innovation Emphasizing Mobile Learning	Course	M.Teach.	25
2017-2020	Computational Thinking	Course	B.Ed. and Teaching Certificate	15-40
2019-2020	Distance Teaching and Learning	Course	M.Teach.	25-45
2015-2020	Object-Oriented Programming	Course	B.Ed. and Teaching Certificate	15-20

Year	Name of Course	Type of Course	Degree	Number of Students
			for CS students	
2015-2020	Computational Models	Course	B.Ed. and Teaching Certificate for CS students	15-20

Technion Institute of Technology, Faculty of Education in Technology and Science

Year	Name of Course	Type of Course	Degree	Number of Students
2008-2019	Methods of Teaching Computer Science	Didactic course	B.Sc. and M.Sc.	15-25
2010-2019	Micro Worlds Teaching in Computerized Environments	Course	B.Sc. and M.Sc.	20-30
2010-2018	Advanced Issues in Computer Science Education, Programming Paradigms	Course	B.Sc. and M.Sc.	15-25

b. Supervision of Graduate Students

Thesis track

Name of student	Title of thesis	Degree	Date of completion	Institution
Vasil Hanin	Integrating computers and tablets in teaching and learning processes for students with hearing impairment. Approved September 2016, final grade: 91.	M.Ed.	2016	Beit Berl College
Dubzinski Nurit	Examination of students' high levels thinking skills performances as reflected in using different online learning environments. Approved November 2019, final grade: 95.		2017	Beit Berl College
Morad Sigal	Research title: The relations between culture and educational-organization change: Implementing innovative pedagogy in an	Ph.D.	2018	Technion Institute of Science

Name of student	Title of thesis	Degree	Date of completion	Institution
	elementary school in the Arab sector as a case study.			
Vasil Hanin	Knowledge and attitudes of teachers who teach the "Computer Science and Robotics for Elementary School" curriculum in relation to conceptual and applied aspects.	Ph.D.	2020	Haifa University
Sammara Hunaida	Knowledge and attitudes of teachers who teach the "Computer Science and Robotics for Elementary School" curriculum in relation to conceptual and applied aspects.	M.Ed.	-- 2021	Beit Berl College
Blich Inbal	The effects of integrating Lego robotics into kindergarten on the cognitive processes in relation to computational thinking and technology thinking of the preschoolers.	M.Ed.	-- 2022	Beit Berl College

Final Projects, Beit Berl College (non-thesis track in M.Ed. Programs)

Name of student	Title of thesis	Degree	Date of completion
Shmuel Moshe	Assimilating the use of Mashov software in the high school	M.Ed.	2011
Amal Thaya	<i>Development of online teaching unit that trains teachers in the integration of online digest for teaching the subject "Technology in Management Systems"</i>	M.Ed.	2013
Adar Ran	Use of computer-based activities using interactive presentations to promote reaching among 2 nd graders	M.Ed.	2016

11. Additional Professional Experience

a. In academic institutions

Dates	Institution / Organization	Activity	Appointment
1987 - 2004	Computer Science Group, Department of Science Teaching, Weizmann Institute of Science	Developed high school curricula and learning materials for the subjects: Expert Systems and Logic programming. Lecturer in professional development courses for teachers	Member
2000 - 2008	"Machsava" (Thought), the Israeli National Center for High School Computer Science Teachers, Technion - Israel Institute of Technology & Weizmann Institute of Science.	Developed teaching materials for in-service high school computer science teachers. During 2005-2008, trained approximately 300 in-service teachers on the subject "Computer Science using Java" as part of the transition of the high school curriculum from using procedural languages to object-oriented languages.	Member
2020 - 2022	The MOFET Institute, A Center for the Research, Curriculum and Program Development in Teacher Education.	Headed team on interdisciplinary STEAM education	Head
2020 - 2021	Beit Berl College	Developed MOOC on Computational Thinking, approved by Digital Israel and The Israel Council for Higher Education	Developer and Lecturer
2021 - 2023	Beit Berl College	Pilot of Assimilation STEM skills in high schools- from school to academy	Partner in leading the project and head of the project team at Beit Berl College

b. Outside academic institutions

Dates	Institution / Organization	Activity	Appointment
1984 - 1994	Gymnasia Realit High School, Rishon Le-Zion	Teaching and developing the software engineering study track	Teacher and head of the computer science studies track
1988 – 1998	Katznelson High School, Kfar-Saba.	Teaching and developing the computer science study track	Teacher and head of the computer science studies track
1993 – 1995	Ministry of Education	Supervisor of computer science teachers from 70 high schools in the central district	Supervisor
2008	Ministry of Education, The Professional Committee for Teaching Computer Science	Professional advisor	Advisor
2019 - 2020	Sheatufim – Strategies for Social Impact	Enhancing computational thinking skills and STEM education	Member of the thinking team and consultant
2020 - 2021	Sheatufim – Strategies for Social Impact	Excellent promotion skills and computational thinking skills, applied through the STEM subjects, to middle school students with an emphasis on the periphery and unique populations	Member of the thinking team and consultant
2021 -	Sheatufim – Strategies for Social Impact	TOP15 - The initiative to promote excellence in science-technology education as an engine for developing a general culture of excellence, while reducing gaps and providing equal opportunities.	Group member

12. Publications

(*) Since tenure position

A. Ph.D. dissertation

Object-oriented programming instruction for high-school novices in Java

June, 2004; XX pages; Hebrew; Weizmann Institute of Science, Department of Science Teaching; Supervisor: Prof. Mordechai Ben-Ari

B. Books

B.1. Written with partners – three editions

1. (*) Hazzan, O., Lapidot, T., & **Ragonis, N.** (2011). *Guide to teaching computer science: An activity-based approach* (1st ed.). London, UK: Springer. (16 Chapters, 95 Activities, 247 p.) [Link to full book](#)
2. (*) Hazzan, O., Lapidot, T., & **Ragonis, N.** (2014). *Guide to teaching computer science: An activity-based approach* (2nd ed.). London, UK: Springer. (16 Chapters, 110 Activities, 285 p.) [Link to book review](#)
3. (*) Hazzan, O., **Ragonis, N.**, & Lapidot, T. (2020). *Guide to teaching computer science: An activity-based approach* (3rd ed.). London, UK: Springer. (18 Chapters, 153 Activities, 393 p.) [Link to book content](#)

B.2. Proceedings editing

1. (*) Adams, L., & **Ragonis, N.** (2012). *Proceedings of the final reports on innovation and technology in computer science education 2012 working groups*. ACM, New York, NY, USA.
2. (*) **Ragonis, N.**, & Kinnunen, P. (2015). *Proceedings of the 2015 ITiCSE on working group reports*. ACM, New York, NY, USA.

C. Articles in peer reviewed journals

C.1. Published

1. **Ragonis, N.**, & Ben-Ari, M. (2005). A long-term investigation of the comprehension of OOP concepts by novices. *Computer Science Education*, 15(3), 203–221.
2. **Ragonis, N.**, & Hazzan, O. (2009). Integrating a tutoring model into the training of prospective computer science teachers. *Journal of Computers in Mathematics and Science Teaching*, 28(3), 309-339.
3. **Ragonis, N.**, & Hazzan, O. (2009). A tutoring model for promoting the pedagogical-disciplinary skills of prospective teachers. *Mentoring & Tutoring: Partnership in Learning*, 17(1), 50–65.

4. **Ragonis, N.** (2010). A pedagogical approach to discussing fundamental object-oriented programming principles using the ADT SET. *ACM Inroads*, 1(2), 42-52.
5. Hazzan, O., Gal-Ezer, J., & **Ragonis, N.** (2010). How to establish a computer science teacher preparation program at your university? – The ECSTPP workshop. *ACM Inroads*, 1(1), 35-39.
6. Haberman, B., & **Ragonis, N.** (2010). So different though so similar? – Or vice versa? Exploration of the logic programming and the object-oriented programming paradigms. *Issues in Informing Science and Information Technology*, 7, 393-402.
7. (*) **Ragonis, N.** (2012). Type of questions - The case of computer science. *Olympiads in Informatics*, 6, 115–132.
8. (*) **Ragonis, N.**, & Shilo, G. (2014). Drawing analogies between logic programming and natural language argumentation texts to scaffold learners' understanding. *Journal of Information Technology Education: Research*, 13, 73- 89. (Presented at InSITE 2014: Informing Science + IT Education Conferences, Jun 30 - Jul 4 2014, Wollongong, Australia – Best paper award.)
9. (*) Shilo, G., & **Ragonis, N.** (2014). Exposing the logical structure of natural language argumentation text by formalizing in logic programming. *Dapim*, 57, 55-82 (in Hebrew).
10. (*) **Ragonis, N.**, & Shilo, G. (2018). Analogies between logic programming and linguistics for developing students' understanding of argumentation texts. *Journal of Information Technology Education: Research*, 17, 549-575.
11. (*) Shilo, G., & **Ragonis, N.** (2019). A new approach to high-order cognitive skills in linguistics: problem-solving inference in similarity to computer science. *Journal of Further and Higher Education*, 43(3), 333-346.
12. (*) Shmallo, R., & **Ragonis, N.** (2020). What is "this"? Difficulties and misconceptions regard the "this" reference. *Journal of Education and Information Technologies*, 26(1), 733-762.
13. (*) **Ragonis, N.**, Hazzan, O., & Har-Shay, G. (2020). Computer science and software engineering students' awareness to and embracement of soft skills by learning and practice teamwork. *Journal of Information Technology Education: Innovations in Practice (JITE:IIP)*, 19, 185-201.
14. (*) Morad, S., **Ragonis, N.**, & Barak, M. (2021). The validity and reliability of a tool for measuring educational innovative thinking skills. *Journal of Teaching and Teacher Education*, 97, 103193. <https://doi.org/10.1016/j.tate.2020.103193>
15. (*) Morad, S., **Ragonis, N.**, & Barak, M. (2021). An integrative conceptual model of innovation and innovative thinking base on synthesis of literature review. *Thinking Skills and Creativity*, 100824.
16. (*) **Ragonis, N.**, & Shmallo, R. (June, 2021). The application of higher-order cognitive thinking skills to promote students' understanding of the use of static in object-oriented programming. *Informatics in Education* (In press).

D. Chapters in peer reviewed books

D.1. Invited refereed chapters

1. **Ragonis, N.** (2009). Computing pre-university: Secondary level computing curricula. In E. D. Benjamin & W. Wah (Eds.), *Wiley encyclopedia of computer science and engineering* (pp. 632-648). Hoboken, NJ: John Wiley & Sons.
2. (*) **Ragonis, N., & Dagan, O.** (2019). Enhance active learning in higher education by using mobile learning. In A. Forkosh Baruch & H. Meishar Tal *Mobile Technologies in Educational Organizations*, (pp. 15-41). Hershey, Pennsylvania: IGI Global.

D.2. Reviewed articles selected from conferences published as chapters in books

1. **Ragonis, N., & Hazzan, O.** (2008). Disciplinary-pedagogical teacher preparation for pre-service computer science teachers: Rationale and implementation. In R. T. Mittermeir & M. M. Syslo (eds) *Informatics education - Supporting computational thinking. ISSEP 2008. Lecture Notes in Computer Science, vol 5090*, (pp. 253-264). Berlin, Heidelberg: Springer.
2. (*) **Ragonis, N., & Oster-Levinz, A.** (2011). Pre-service computer science teacher training within the professional development school (PDS) collaboration framework. In: Kalaš I., Mittermeir R.T. (eds) *Informatics in Schools - Contributing to 21st Century Education. ISSEP 2011. Lecture Notes in Computer Science, vol 7013*, (pp. 106-116). Berlin, Heidelberg: Springer.
3. (*) **Ragonis, N., & Shmallo, R.** (2018). A diagnostic tool for assessing students' perceptions and misconceptions regards the current object "this". In S. Pozdniakov & V. Dagienė (eds) *Informatics in Schools - Fundamentals of Computer Science and Software Engineering. ISSEP 2018. Lecture Notes in Computer Science, vol 11169*, (pp. 84-100). Springer, Cham.
4. (*) **Ragonis, N.** (2018). Computational thinking: Constructing the perceptions of pre-service teachers from various disciplines. In S. Pozdniakov & V. Dagienė (eds) *Informatics in Schools - Fundamentals of Computer Science and Software Engineering. ISSEP 2018. Lecture Notes in Computer Science, vol 11169*, (pp. 167-179). Springer, Cham.
5. (*) **Ragonis, N., & Hazzan O.** (2019). What Are Computer Science Educators Interested In? The Case of SIGCSE Conferences. In: Pozdniakov S., Dagienė V. (eds) *Informatics in Schools. ISSEP 2019. New Ideas in School Informatics. Lecture Notes in Computer Science, vol 11913*, (pp. 28-40). Springer, Cham.

E. Publications in reviewed conference proceedings

E.1. Peer reviewed papers

1. Scherz, Z., Haberman, B., **Ragonis, N.**, & Shapiro, E. (1993). Expert systems by high school students in PROLOG environment. *Proceedings of the 7th International PEG Conference*, Edinburgh, Scotland, July 1993.
2. Scherz, Z., Haberman, B., & **Ragonis, N.** (1994). Introduction to logic programming: The development of a multilevel curriculum. *Proceedings of the 7th ICLP workshop on Logic Programming in Education*, Santa-Margarita, Italy.

3. Ben-Ari, M., **Ragonis, N.**, & Ben-Basat Levi, R. (2002). A vision of visualization in teaching object-oriented programming. *Proceedings of the Second Program Visualization Workshop, Denmark*, 84-90.
4. **Ragonis, N.**, & Ben-Ari, M. (2002). Teaching constructors: A difficult multiple choice. *Proceedings of the Sixth Workshop on Pedagogies and Tools for Learning Object Oriented Concepts in ECOOP 2002*, Málaga, Spain.
5. **Ragonis, N.**, & Haberman, B. (2003). Management issues of flexible, multi-level distance learning-based teacher training. *Proceedings of the 3rd IEEE International Conference on Advanced Learning Technologies (ICALT), Athens, Greece*, 428-429. (short paper).
6. **Ragonis, N.**, & Ben-Ari, M. (2005). On understanding the static's and dynamics of object-oriented programs. *ACM SIGCSE Bulletin*, 37(1), 226 – 230.
7. **Ragonis, N.**, & Hazzan, O. (2008). Tutoring model for promoting teaching skills of computer science prospective teachers. In J. Amillo, C. Laxer, E. Menasalvas Ruiz, & A. Young (Eds.), *Proceedings of the 13th Annual SIGCSE Conference on Innovation and Technology in Computer Science Education, ITiCSE 2008*, Association for Computing Machinery, New York, NY, 276-280.
8. Gal-Ezer, J., Hazzan, O., & **Ragonis, N.** (2009). Preparation of high school computer science teachers: The Israeli perspective. *ACM SIGCSE Bulletin*, 41(1), 269-270.
9. **Ragonis, N.**, Hazzan, O., & Gal-Ezer, J. (2010). A survey of computer science teacher preparation programs in Israel tells us: Computer science deserves a designated high school teacher preparation! *Proceedings of SIGCSE 2010 - The 41st ACM Technical Symposium on Computer Science Education*, Milwaukee, WI, USA, 401-405.
10. **Ragonis, N.**, & Hazzan, O. (2010). A reflective practitioner's perspective on computer science teacher preparation. *proceedings of the 4th International Conference on Informatics in Secondary Schools: Evolution and perspective (ISSEP)*, Zürich, Switzerland, 90-106.
11. (*) **Ragonis, N.**, Hazzan, O., & Gal-Ezer, J. (2011). A study on attitudes and emphases in computer science teacher preparation. *Proceedings of SIGCSE 2011 - The 42st ACM Technical Symposium on Computer Science Education*, Dallas, Texas, USA, 401-405.
12. (*) **Ragonis, N.** (2012). Integrating the teaching of algorithmic patterns into computer science teacher preparation programs. *Proceedings of the 17th ACM annual conference on Innovation and technology in computer science education (ITiCSE '12)*, 339-344.
13. (*) Shmallo, R., **Ragonis, N.**, & Ginat, D. (2012). Fuzzy OOP: Expanded and reduced term interpretation. *Proceedings of the 17th ACM annual conference on Innovation and technology in computer science education (ITiCSE '12)*, 309-314. (Acceptance rate: 46%)
14. (*) **Ragonis, N.**, & Shilo, G. (2013). What is it we are asking: Interpreting problem-solving questions in computer science and linguistics. *Proceeding of the 44th ACM technical symposium on Computer science education (SIGCSE '13)*. ACM, New York, NY, USA, 189-194.

15. (*) Hazzan, O., & **Ragonis, N.** (2014). STEM Teaching as an additional profession for scientists and engineers: The case of computer science education. *Proceedings of the 45th ACM technical symposium on Computer science education (SIGCSE '14)*. ACM, New York, NY, USA, 181-186.
16. (*) Barak, M., Morad, S., & **Ragonis, N.** (2014). Students' innovative thinking and their perceptions about the ideal learning environment. *Springer Proceedings in Complexity 2014, The 8th International Conference on Knowledge Management in Organizations (KMO)*, 111-125.
17. (*) Morad, S., **Ragonis, N.**, & Barak, M. (2014). Innovative Thinking and ICT Expertise of Undergraduate Students in Education. In Y. Eshet-Alkalai, A. Caspi, N. Geri, Y. Kalman, V. Silber-Varod & Y. Yair (Eds.), *Learning in the Technological Era: Proceedings of the 9th Chais Conference for the Study of Innovation and Learning Technologies*, The Open University of Israel, Reanna, Israel, February 11-12. (In Hebrew)
18. (*) **Ragonis, N.**, & Shmallo, R. (2017). On the (Mis) understanding of the "this" reference. *Proceedings of the 2017 ACM SIGCSE Technical Symposium on Computer Science Education (SIGCSE '17)*. ACM, New York, NY, USA, 489-494.
19. (*) Dagan, O., **Ragonis, N.**, Wagner, T., & Goldman, D. (2019). Integrative STEM Education -A New M.Ed. Program: Development, Objectives, and Challenges. *Proceedings of Pupils Attitudes Toward Technology - PATT 37 - Developing a knowledge economy through technology and engineering education*, 125-132. Msida, Malta, 03-06, June 2019. Retrieved from: <https://www.iteea.org/File.aspx?id=157700&v=e94e5d51>

E.2. Peer reviewed posters and tutorial

1. **Ragonis, N.**, Scherz, Z., Ben-Ari, M., & Shapiro, E. (1998). Development, implementation and evaluation of a course in expert systems for high-school students. *ACM SIGCSE Bulletin*, 30(3), 300.
2. Israel National Center for Computer Science Teachers (2002). "*Machshava*": *The Israeli National Center for high school computer science teachers. Proceedings of the 7th Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE)*. Aarhus, Denmark, June 2002, 234.
3. **Ragonis, N.** (2004). A refreshing approach to an academic seminar course. *ACM SIGCSE Bulletin*, 36(3), 236.
4. **Ragonis, N.** (2006). *Research-based guidelines for teaching OOP*. International Conference on Informatics in Secondary Schools—Evolution and Perspectives, ISSEP 2006, Vilnius, Lithuania, November 7-11, 2006. (Tutorial)
5. **Ragonis, N.**, & Haberman, B. (2010). Linking different programming paradigms: thoughts about instructional design. *Proceedings of the fifteenth annual conference on Innovation and technology in computer science education (ITiCSE '10)*. ACM, New York, NY, USA, 310-310.
6. (*) Lapidot, T., & **Ragonis, N.** (2013). *Supporting high school computer science teachers in writing academic papers*. The 18th Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE 2013), University of Kent, Canterbury, England 1-3 July 2013.

F. Reviewed papers presented at conferences

1. (*) **Ragonis, N.**, & Shilo, G. (2013). *Higher-order thinking skills as reflected in keywords in questions in two (considerably) different disciplines: Linguistics and computer science*. The 6th International Conference on Teacher Education – Changing Reality through Education, the Mofet Institute, 2-4 July 2013.
2. (*) Shilo, G., & **Ragonis, N.** (2016). *Testing the effect of learning two disciplines: Language and computer science for understanding the argumentation texts*. 2016 NAPH International Conference on Hebrew Language, Literature and Culture, Brown University, Providence, Rhode Island, 21-23 June 2016
3. (*) **Ragonis, N.**, & Hazzan, O. (2018). *What are computer science educators interested in? The case of SIGCSE conferences*. Lightning Talk presented at the fourteenth annual ACM International Computing Education Research (ICER) conference, Espoo, Finland, 13-15 August 2018.
4. (*) **Ragoins, N.**, Wagner, T., Goldman, D., & Dagan, O. (2019). *Integrative STEM M.Ed. Degree Aligning with Contemporary Perspectives in Academia and Industry*. The 13th Conference of the European Science Education Research Association (ESERA), Bologna, Italy, 26-30 August 2019.

G. Other scientific publications

(Non-peer reviewed academic publications connected to my field)

G.1. Curriculum

1. The Israeli Ministry of Education, Culture and Sports (1999). Curriculum in Computer Science for High School in the Israeli State and State-Religious Education. Participated in writing of the syllabus for the logic programming study unit: Dr. Zahava Scherz, Prof. Ehud Shapira, Prof. Oded Shmueli, Naomi Liberman, **Noa Ragonis**.
2. **Ragonis, N.** & Ben-Ari, M. (2005). Report on the transition of the curriculum Fundamentals of Computer Science to Advanced Programming Languages Java and C#. Weizmann Institute of Science, The Center for Science Education, The Israeli Ministry of Education, Curricula Development Department.
3. **Ragonis, N.** (2005). Curriculum in Computer Skills for the Israeli Ministry of Economy and Industry, the Manpower Training and Development Bureau. Beit Berl College, Curriculum Planning Center.

G.2. Position papers

1. (*) **Ragonis, N.**, Dagan, O., Wagner, T., Goldman, D. (2017). REAL STEAM for Developing the Next Generation Problem Solvers. MASHAV Educational Training Center, [May 2017 Booklet STEM](#).
2. (*) **Ragonis, N.**, Hazzan, O., & Rosenberg-Kima, R. (2019). *C4CT Pedagogy: Constructionist Holistic Pedagogy for Developing Computational Thinking*. Position Paper for the Initiative 5P2 to Expand the Circle of Excellence in Mathematics, Physics, Chemistry and Technology. (In Hebrew) [Link](#)

3. (*) **Ragonis, N.**, Hazzan, O., & Rosenberg-Kima, R. (2019). *Computer Science / Programming / Computational Thinking in Education - Research and Literature Review*. Paper for the Initiative 5P2 to Expand the Circle of Excellence in Mathematics, Physics, Chemistry and Technology. (In Hebrew) [Link](#)

G.3. Publications of the National Center for Computer Science Teachers (In Hebrew)

1. **Ragonis, N.** (2003). Interactive visualization for teaching object-oriented programming using BlueJ. *The binder of lab activities and demonstrations*.
2. **Ragonis, N.** (2004). The busy beaver problem. *The binder of famous unsolved CS problems*.
3. **Ragonis, N.** (2006). Algorithms efficiency: An example of big-O improvement for two-dimensions array problem solving. *Hebetim – The CS Israeli Teachers Magazine*, June 2006, 34-38.
4. **Ragonis, N.** (2007). A literature survey - In preparation for the development of new CS HS curriculum. *Hebetim – The CS Israeli Teachers Magazine*, June 2007, 17-37.
5. (*) Shmallo R., **Ragonis, N.**, & Ginat, D. (2013). Fuzzy OOP: Expanded and reduced term interpretation. *Hebetim – The CS Israeli Teachers Magazine*, January 2013, 20-29.

G.4. High school textbooks (In Hebrew)

1. **Ragonis, N.** (1992, 1996). *Introduction to expert systems – Teacher guide*. Weizmann Institute of Science and The Israeli Ministry of Education.
2. **Ragonis, N.** (1992, 1996). *Introduction to expert systems*. Weizmann Institute of Science and The Israeli Ministry of Education.
3. **Ragonis, N.** (2000, 2003). *Preparations for matriculation exams tests in computer science – Foundations* (In Paskal and C). Hod-Hasharon: Mabat Lahalonot.
4. **Ragonis, N.** (2001). *Preparations for matriculation exams in computer science – Advanced*. Hod-Hasharon: Mabat Lahalonot.
5. **Ragonis, N.**, & Man, S. (2007). *Software design in Java and C#*. Hod-Hasharon: Mabat Lahalonot.
6. **Ragonis, N.**, & Man, S. (2007). *Computer science foundations in Java and C# - part b*. Hod-Hasharon: Mabat Lahalonot.
7. (*) **Ragonis, N.**, & Man, S. (2014). *Computer science foundations in Java and C# - an Object First Approach*. Hod-Hasharon: Mabat Lahalonot.
8. (*) **Ragonis, N.**, & Man, S. (2015). *Data structures in Java and C#*. Hod-Hasharon: Mabat Lahalonot.

G.5. Scientific editing of high school textbooks (In Hebrew)

1. Man, S., Giladi, P., and Avrams, R. (2007). *Computer science foundations in Java and C# - Part A*. Mabat Lahalonot. (In Hebrew)
2. Man, S., and Avrams, R. (2009). *Computational models*. Mabat Lahalonot.

3. Hardy, K. (2019). *Object-oriented programming*. Mabat Lahalonot.

H. Publications currently under review in reviewed journals

1. Shilo, G., & **Ragonis, N.** (under review after revisions). Understanding the title as a key to text comprehension. Submitted to *Journal of Language Awareness*.
2. **Ragonis, N.**, Rosenberg-Kima R, & Hazzan O. (under review). The 4P4CT – Four Pedagogies for Developing Computational Thinking – Framework: Implementation in Preservice K-12 Teachers Preparation Program. Submitted to *Canadian Journal of Science, Mathematics and Technology Education*.
3. Mike, K., **Ragonis, N.**, Rosenberg-Kima, R., & Hazzan, O. (under review). Revisiting Computational Thinking in the Era of Data Science. A viewpoint paper submitted to *Communications of the ACM*.