אורית פרנפס - קורות חיים

פרטים אישיים

שם: אורית פרנפס
ארץ לידה: ישראל
שנת לידה: 1968
מצב משפחתי: נשואה + 3
כתובת: חנה סנש 17, רעננה
טלפון: 054-4973757
דוא"ל: orit@parnafes.org

1. השכלה אקדמית

התואר		חוגים	מוסד אקדמי	קבלת התואר
בוגר	BSe	מתמטיקה מדעי המחשב	הטכניון	1990
מוסמך	MA	Education in Math, Science and Technology	University of California, Berekely	2002
דוקטור	PhD	Education in Math, Science and Technology	University of California, Berkeley	2005

2. הוראה אקדמית ודרגה אקדמית

א. מוסדות אקדמיים

שנים	המוסד	דרגה אקדמית (המוסד המעניק)	היקפי משרה
2006-2007	אוניברסיטת תל-אביב	מדריכת דוקטור	80%
2007-2012	אוניברסיטת תל-אביב	עמיתת הוראה	30-80%
2011-2012	סמינר הקיבוצים	מרצה	15%
2012-2015	אוניברסיטת בן-גוריון	מרצה (חברת סגל)	100%
2016-2017	אוניברסיטת תל-אביב	עמיתת הוראה	

ב. קורסים

שם הקורס	תואר	מוסד אקדמי
מודלים חלופיים ללמידה והוראה	BA, MA	אוניברסיטת תל-אביב, אוניברסיטת בן-גוריון
גישות למידה והשתמעויותיהן להוראה וסביבות למידה	BA, MA	אוניברסיטת תל-אביב, סמינר הקיבוצים, החממה במכון לחינוך דמוקרטי, אוניברסיטת בן-גוריון
למידה משמעותית	BA	אוניברסיטת בן-גוריון
למידה, חשיבה והבנה באמצעות ייצוגים ויזואליים	BA, MA	אוניברסיטת תל-אביב, אוניברסיטת בן-גוריון, UC Berkeley
כתיבה מדעית	MA, PhD	אוניברסיטת תל-אביב

ג. הנחיית סטודנטים

1. ליטל דיצ'י-קידר, MA, אוניברסיטת תל-אביב, 2012 (בשיתוף עם פרופ' תמר לוין)
2. אורלי שפירא, MA, אוניברסיטת תל-אביב, 2012 (בשיתוף עם פרופ' יובל דרור)

3. תחומי מחקר ופרסומים אקדמיים עיקריים

א. תחומי מחקר עיקריים

- שינוי קונספטואלי
- יצירה עצמית של ייצוגים ויזואליים לשם למידה, הבנה וחשיבה
- חוויות למידה משמעותיות, למידה משמעותית, למידה מתוך תנועת החיים
- מודלים חלופיים להוראה ולמידה (חינוך דמוקרטי וחלופות אחרות לסביבות למידה)

ב. מענקי מחקר

2014-2015	*The Israel Science Foundation (ISF).* Parnafes, O. (PI). Exploring the phenomenon of Meaningful Learning Experience, and exposing the conditions and mechanisms underlying its emergence. 10/2014-9/2015. 70,000$.
2010 - 2012	*Spencer Foundation.* Parnafes, O. (PI), Promoting conceptual understanding through activities involving student-generated representations (SGR). 6/2010-5/2012, $39,425.
2010 - 2011	*AERA Educational Research Conference program.* A. diSessa, M. Levin, O. Parnafes, B. Sherin, D. Hammer. Organizing a mini-conference: Integrating knowledge analysis and interaction analysis approaches to studying learning and conceptual change. 5-8 June, 2011, $40,000
2008 - 2010	*Tel-Aviv University Foundation for Research Promotion.* Parnafes, O. (PI), Self-generated representations for promoting conceptual understanding. 6/2008-5/2010, $10,000.

ג. פרסומים אקדמיים עיקריים

מאמרים בכתבי עת

diSessa, A. A.& Parnafes, O. (2013). This Is about the Ways in Which Theories Are Developed! Response to Commentaries by Karmiloff-Smith, Siegler & Fazio, and Ackerman. Human Development, Letters to the Editor.

Parnafes, O. & diSessa, A. A. (2013). Microgenetic learning analysis: a methodology for studying knowledge in transition. Human Development. 56(1): 5–37.

Parnafes, O. (2012). Developing Explanations and Developing Understanding: Students explain the Phases of the Moon Using Visual Representations. Cognition & Instruction, 30(4), 1-46.

Parnafes, O. (2010). When Simple Harmonic Oscillation is not That Simple: The Complexity of Students' Sense Making. *The journal of science education and technology. 19*(6), 565-579.

Parnafes, O. (2007). What does fast mean? Understanding the Physical World through Representations. *The Journal of the Learning Sciences. 16*(3). 415-450.

Parnafes, O. & diSessa, A. A. (2004). Relations between patterns of reasoning and computational representations. *International Journal of Computers for the Mathematics Learning: 9*, 251-280.

diSessa, A. A., Azevedo, F. S. & Parnafes, O. (2004). Issues in component computing: A synthetic review*. Interactive Learning Environments: 12*, 109-159.

מאמרי כינוסים מדעיים

Parnafes, O. (2010). Tracing knowledge re-organization - a fine grain analytical framework for looking at students' developing explanations. Proceedings of the Eighth International Conference of the Learning Sciences. Chicago, IL: ICLS.

Parnafes, O. (2010). Representational practices in the activity of student-generated representations (SGR) for promoting conceptual understanding. Proceedings of the Eighth International Conference of the Learning Sciences. Chicago, IL: ICLS.

Parnafes, O. (2009). Self-Generated Representations (SGR) for Promoting Conceptual understanding. In Y. Eshet, A. Caspi, S. Eden, N. Geri and Y.

Yair (eds.) The learning man in the technological era, Proceedings of the Chais conference on instructional technology research, Open University Press, Israel.

Parnafes, O., Hammer, D., Sherin, B., diSessa, A. Edelson, D., Louca, L., Lee, V., Krakowski, M. (2008). How to study learning processes? Reflection on methods for fine-grain data analysis. In P. A. Kirschner, J. van Merrienboer, T. de Jong, (Eds.) *Proceedings of the eighth International Conference of the Learning Sciences (ICLS).* Utrecht, Netherlands.

Parnafes, O., Wagner, J., Mestre, J., diSessa, A. & Sherin, B. (2006). "Theory in pieces" – the communal development of a theory. In S. Barab, K. Hay, & D. Hickey (Eds.), *Proceedings of the Seventh International Conference of the Learning Sciences (ICLS).* Bloomington, IN.

Parnafes, O. (2006). Developing conceptual understanding through the use of computer-based representations. In Y. Eshet, A. Caspi and Y. Yair (eds.) *The learning man in the technological era,* Proceedings of the 1st Chais conference on instructional technology research, Open University Press, Israel. (Hebrew)

Parnafes, O. (2004). The development of conceptual understanding mediated by computational representations. In P. Gerjets, P. A. Kirschner, J. Elen, & R. Joiner (Eds.). *Instructional design for effective and enjoyable computer-supported learning. Proceedings of the first joint meeting of the EARLI SIGs Instructional Design and Learning and Instruction with Computers.* Tuebingen: Knowledge Media Research Center, 148-159.

Parnafes, O. & diSessa, A. A. (2002). The representational effect in a computer-based learning activity. In P. Bell, R.Stevens, & t. Satwicz (Eds.), *Keeping Learning Complex: The Proceedings of the Fifth International Conference of the Learning Sciences (ICLS).*

חומרי למידה, כולל אתרי אינטרנט לימודיים

Parnafes, O. (1997). Mass Communication and society - an online course for middle school students. Aviv – the first Israeli virtual course. Ort-Snunit, Israel (in Hebrew). http://www.aviv.org.il/com/

Parnafes, O. (1998). Information Competencies in the Internet Age – an online course for middle school students. Aviv – the first Israeli virtual course. Ort-Snunit, Israel (in Hebrew). http://aviv.org.il/info/home.htm

ספרים

Parnafes, O. (1998*). Information Competencies in the Internet Age – A guide for the student.* Ort Publications, Israel (in Hebrew).

Bar-Lev, Y., Parnafes, O. & Krumholtz, N. (1997*). Self-Regulated Learning in Media+ program – a teacher's guide.* Technion Publications, Israel (in Hebrew).

Krumholtz, N., Parnafes, O. & Cohen, D. (1991). *Logo – Thinking, Creating, Enjoying - A Teacher Guide.* Ramot, Tel-Aviv University, Israel (in Hebrew).

4. פעילות אקדמית בכנסים וסדנאות

א. פעיליויות מקצועיות בכנסים

June 2011   Co-organizer (with Dr. M. Levin) of a mini conference (June 5-8, 2011, Marin County, California): An AERA funded Educational Research Conference on Integrative perspectives on knowledge analysis and interaction analysis.

2008 – 2012 Co-founder (with Dr. M. Levin) and an organizer of the KiP (Knowledge in Pieces) community.

June, 2010 Co- organizer (with Dr. M. Levin) and member of planning team, Second Annual Knowledge in Pieces Workshop (June, 2010)

June, 2009 Co- organizer (with Dr. M. Levin) and a member of planning team, First Annual Knowledge Analysis Workshop (April, 2009)

ב. הצגה בכנסים

Parnafes, O., Trachtenberg, R. (2013). Making Sense and Communicating Ideas Using Invented Representations Related to Energy Transformation. In O. Parnafes (Chair), A. A. diSessa (discussant). Drawing scientific ideas: Student-generated representations (SGR) as means of sense-making, communicating ideas, and meta-representational competence. Symposium to be presented at the annual meeting of the American Educational Research Association, San Francisco, California.

Parnafes, O. (2012). Developing explanations and Developing Understanding in a Student-Generated Representations Activity. Paper to be presented at the annual meeting of the American Educational Research Association, Vancouver, Canada.

Parnafes, O., Aderet-German, T., Toov-Ward, E. (April, 2012). Drawing for Understanding: An Instructional Approach for Promoting Learning and Understanding. Paper to be presented at the annual meeting of the American Educational Research Association, Vancouver, Canada.

Brown, J. S. N, Danish, J., Deliema, D., Engle, R., Enyedy, N., Lee, R. V., Parnafes, O. (April, 2012). Representationally anchored and socially constructed understanding: a model for integrating seemingly divergent frameworks for the

analysis of knowledge in use. In M. Levin (chair), Sherin, B. & Stevens, R. (discussants). Integrating issues of knowledge and interaction in analyses of cognition and learning. Symposium to be presented at the annual meeting of the American Educational Research Association, Vancouver, Canada.

Levin, M. & Parnafes, O. (2011). Organizers of the American Educational Research Association funded Educational Research Conference on Integrative perspectives on knowledge analysis and interaction analysis

Brown, J. S. N, Danish, J., Deliema, D., Engle, R., Enyedy, N., Lee, R. V., Parnafes, O. (2011). *Knowledge and interaction in representational activity:* Communicating scientific knowledge to different recipients using drawn representations. Project presented at the AERA funded Educational Research Conference on Integrative perspectives on knowledge analysis and interaction analysis

Parnafes, O. (2010). Tracing knowledge re-organization - a fine grain analytical framework for looking at students' developing explanations. Paper to be presented at the Eighth International Conference of the Learning Sciences. Chicago, IL: ICLS.

Parnafes, O. (2010). Representational practices in the activity of student-generated representations (SGR) for promoting conceptual understanding. Paper to be presented at the Eighth International Conference of the Learning Sciences. Chicago, IL: ICLS.

Parnafes, O. & diSessa, A. A. (2010). Studying knowledge in transition: presenting MLA (Microgenetic Learning Analysis). In O. Parnafes & M. Levin (symp. Org.), A. A. diSessa (chair) & L. Verschaffel (discussant), Developing theories of learning and conceptual change: reflections on the dialogue between data analysis and theory building. Symposium to be presented at the the EARLI SIG on Conceptual Change. Lueven, Belgium.

Parnafes, O. (May 2010). Tracing knowledge re-organization-a knowledge-in-pieces analysis of students' developing explanations. Paper to be presented at the the EARLI SIG on Conceptual Change. Lueven, Belgium.

Parnafes, O. (2009). Developing a Model that Describes Mechanisms of Change Through the Use of representations. In M. Levin & L. Barth-Cohen (Poster session organizers and chairs) & A. diSessa (discussant). Modeling Micro-Processes of Learning and Conceptual Change. Poster session presented at the annual meeting of the American Educational Research Association, San Diego, CA.

Parnafes, O. (2009). Self-Generated Representations (SGR) for Promoting Conceptual understanding. Paper presented at the Chais conference on instructional technology research, Open University Press, Israel.

Parnafes, O. (2008). Theoretical framework – processes of appropriation and evolution. In O. Parnafes (symposium organizer and chair) & R. Engles (discussant), *How to study learning processes? Reflection on methods for fine-grain data analysis.* Symposium presented at the Eighth International Conference

of the Learning Sciences. Utrecht, Netherlands: ICLS.

Parnafes, O. (2007). Understanding natural harmonic oscillation through the mediation of representations. In Levin, M. & Brar, R. (organizers) & diSessa, A. (discussant), *Thinking through Representations: A Knowledge-in-Pieces Epistemological Perspective.* Symposium presented at the annual meeting of the American Educational Research Association, Chicago, IL.

Parnafes, O. (2006). Coordination clusters in oscillatory motion. In O. Parnafes (symp. org. and chair) & B. Sherin (discussant), *"Theory in pieces" – the communal development of a theory.* Symposium presented at the Seventh International Conference of the Learning Sciences. Bloomington, IN: ICLS.

Parnafes, O. (2006). Managing perceptual and conceptual complexity through the use of computational representations. In O. Levrini (chair) & D. Hammer (discussant), *Why complexity is important for learning?* Symposium presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

Parnafes, O. (2005). *The development of conceptual understanding mediated by computational representations.* Paper presented at the 11th EARLI conference in August 2005, Nicosia, Cyprus.

Parnafes, O. (2005). Constructing coherent understanding of physical concepts through the interpretation of multiple representations. In T. Seufert (chair) & S. Ainsworth (discussant), *Supporting coherence formation in learning with multiple representations.* Symposium conducted at the 11th EARLI conference in August 2005, Nicosia, Cyprus.

Parnafes, O. (2005). Constructing understanding of physical phenomena through the interpretation of computational representations. In O. Parnafes (chair) & A. A. diSessa (discussant), *Meaning making with representations: contrasting perspectives.* Symposium conducted at the annual meeting of the American Educational Research Association, Montreal, Canada.

Parnafes, O. (2005). *The hit is going faster cause the gap is getting bigger – developing understanding mediated by representations.* Paper discussed at the annual meeting of the American Educational Research Association, Montreal, Canada.

Parnafes, O. (2004). *The development of conceptual understanding mediated by computational representations.* Paper presented at the first joint meeting of the EARLI SIGs Instructional Design and Learning and Instruction with Computers. Tuebingen, Germany.

Parnafes, O. (2003). *How do multiple representations support a problem-solving process?* Paper presented at the 10th EARLI conference in August 2003, Padova, Italy.

February 2003 Participation in the "Design Database Online Workshop" sponsored by the Center of Innovative Learning Technologies (CILT),

http://cilt.org/events/2003/design_db_workshop.html.

Parnafes, O. & diSessa, A. A. (2002*). The representational effect in a computer-based learning activity.* Paper presented at the Fifth International Conference of the Learning Sciences (ICLS)*.* Seattle, WA.

diSessa, A. A., Azevedo, F. & Parnafes, O. (2002). The Web/component project. In A.A. diSessa (chair) & D. Edelson (discussant), *Component Software for Learning: Fad or Fabulous Innovation?* Symposium conducted at the annual meeting of the American Educational Research Association, New Orleans.

Parnafes, O. (2002). *Representation determinism in a computer-based learning activity*. Poster session presented at the annual meeting of the American Educational Research Association, New Orleans.

5. מלגות ופרסים:

Early Career award for the ICLS conference	יוני 2010
Junior Researcher Consortium award for the ICLS conference	יולי 2006
University fellowship for continued graduate study in education	2003-2005
NSF - Reforming education through science and design - Research training	2001-2002
U.C. Berkeley University Fellowship	2000-2003