



# *The Hebrew University of Jerusalem*

## *Syllabus*

### *Teaching of Thinking - 34367*

*Last update 08-05-2024*

*HU Credits:* 2

*Degree/Cycle:* 2nd degree (Master)

*Responsible Department:* Teaching Training - Diploma

*Academic year:* 0

*Semester:* 2nd Semester

*Teaching Languages:* Hebrew

*Campus:* Mt. Scopus

*Course/Module Coordinator:* Dr. Ehud Tsemach

*Coordinator Email:* [anat.zohar1@mail.huji.ac.il](mailto:anat.zohar1@mail.huji.ac.il)

*Coordinator Office Hours:* Wed 6.30-8 by appointment

*Teaching Staff:*

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Dr. Ehud Tsemach

Course/Module description:

The main goals of the course are to define what thinking-based teaching is, to understand its principles, and to examine how it is manifested in the classroom. In the course, we will emphasize how the theory and educational research on thinking-based teaching are translated into the practice of teaching in the field.

Course/Module aims:

Introduce the theoretical background related to instructing for higher-order thinking (HOT).

Present practical teaching strategies aimed at nurturing students' thinking.

Learning outcomes - On successful completion of this module, students should be able to:

1. Students will know, understand and be able to analyse concepts and texts in the area of fostering students' thinking.
2. Students will be able to integrate thinking goals in planning lessons, constructing learning activities, constructing assessment instruments and classroom instruction.
3. Students will construct the necessary knowledge for the practical workshop accompanying the course.

Attendance requirements(%):

100%

Teaching arrangement and method of instruction: The course will be based on five face to face lectures.

Course/Module Content:

1. Introduction to Thinking-based teaching - we will examine different definitions of thinking-based teaching, understand the principles of thinking-based teaching, and review the differences between thinking-based teaching and traditional teaching. We will also learn about the advantages of thinking-based teaching for students and society.
2. Thinking Strategies we will define the key concept that will accompany the course, "thinking strategies." We will then describe how thinking strategies are manifested in different subject areas and present the Strategies Document, which serves as a pedagogical framework for thinking-based teaching strategies and how to use it. In this session, we will practice learning activities that focus on two key strategies: questioning and comparison, including metacognitive discourse.

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3. *Argumentation and Dialogic Teaching* - the third session will be devoted to two main topics: the argument strategy and dialogic teaching. In the first part, we will focus on the following: defining the argument strategy, understanding the components of an argument, examining what makes an argument persuasive, describing the centrality of the argumentation in various content areas, presenting and practicing learning activities that practice the argument strategy in different subject areas.

In the second part, dedicated to dialogic teaching, we will focus on the following issues: comparing the characteristics of transmissive and dialogic discourse in the classroom, understanding the connection between dialogic discourse and thinking-based teaching, and examining the principles for managing dialogic discourse in the classroom.

4. *Metacognition* - Metacognition or "thinking about thinking" is manifested in explicit and systematic discourse about thinking processes and thinking strategies in the classroom. In the fourth session, we will address the following issues related to metacognition: present definitions of metacognition, understand the components of metacognition, with an emphasis on meta-strategy, review the advantages of metacognition in improving achievement and problem-solving, examine examples of metacognition from previous lessons and analyze them, and compare cognitive and metacognitive discourse in the lesson.

5. *Challenges in thinking-based teaching | Thinking-based teaching in a Heterogeneous Classroom* - Unit 5 is dedicated to challenges and barriers in thinking-based teaching. In practice, despite the focus on thinking-based teaching in teacher training and professional development, thinking-based teaching does not permeate the field due to a variety of challenges. The fifth unit will address these challenges, and in particular, and finding ways to overcome them. We will describe patterns of teacher discourse and instruction that make thinking-based teaching superficial and not in-depth, and learn key principles for promoting discourse and instruction that enable in-depth teaching of thinking.

Additionally, We will present teachers' perceptions about the ability of low-achieving students to engage in higher-order thinking, emphasize the importance and positive impact of thinking-based teaching to these students, and describe key teaching practices for mediating the teaching of thinking to low-achieving students.

#### Required Reading:

יחידה 1 – מבוא להוראת חשיבה

פרק 1: השיח על הוראה ולמידה: השיח החסר במערכת החינוך הישראלית. עמ' 15-32.  
בתוך: זוהר, ע' (2012). ציונים זה לא הכל – לקראת שיקומו של השיח הפדגוגי. ספרית הפועלים – בני ברק.

פרק 5: איך עושים את זה? עמ' 98-119

בתוך: זוהר, ע' (2012). ציונים זה לא הכל – לקראת שיקומו של השיח הפדגוגי. ספרית הפועלים – בני ברק.

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יחידה 2 ויחידה 3 – אסטרטגיות חשיבה

יועד, צ' ואחרים (2009). אסטרטגיות חשיבה מסדר גבוה - מסמך מנחה למתכנני תכניות לימודים ארציות ומקומיות ולמפתחי חומרי למידה. משרד החינוך, המזכירות הפדגוגית, האגף לתכנון ולפיתוח תכניות לימודים.

בזז, מ'. פישר, ג'. (2008). לחלץ את ההוראה מדפוס הימ"מ. הד לחינוך. 82(7): 30-33. קישור למאמר.

יחידה 4 ויחידה 5 – מטה-קוגניציה והוראת חשיבה לתלמידים בעלי הישגים נמוכים

זוהר (2016). חשיבה מטא-קוגניטיבית ולמידה לקראת הבנה. להבין הבנה; ללמד להבין: מושגים ומעשים. ע': יורם הרפז. מכון מופ"ת - תל אביב.

פרק 8: פרק 8 פיתוח החשיבה ופערים לימודים וחברתיים.

בתוך: זוהר, ע' (2012). ציונים זה לא הכל - לקראת שיקומו של השיח הפדגוגי. ספרית הפועלים - בני ברק.

קריאה של מאמר אחד מתוך רשימת המאמרים על הוראת חשיבה בתחומי הדעת. הרשימה מופיעה במשימה 3.

#### Additional Reading Material:

יחידה 1 – מבוא להוראת חשיבה

Chapter 1: The Importance of Skillful Thinking. pp 1-32.

In: Swartz, R. J., Costa, A. L., Beyer, B. K., Reagan, R., & Kallick, B. (2010). *Thinking-Based Learning: Promoting Quality Student Achievement in the 21st Century*. Teachers College Press. 1234 Amsterdam Avenue, New York, NY 10027.

Resnick, L. B., & Science National Research Council (US). Committee on Research in Mathematics. (1987). *Education and learning to think*. Link

יחידה 2 – אסטרטגיות חשיבה

Tsemach, E., & Zohar, A. (2023). "The king will be corrupt too!" Thinking-based teaching in bible studies. *Journal of Curriculum Studies*, 55(1), 63-81.

Chapter 2: Teaching Skillful Thinking: A Demonstration Lesson. pp 33-53.

In: Swartz, R. J., Costa, A. L., Beyer, B. K., Reagan, R., & Kallick, B. (2010). *Thinking-Based Learning: Promoting Quality Student Achievement in the 21st Century*. Teachers College Press. 1234 Amsterdam Avenue, New York, NY 10027

מסמך האסטרטגיות

יועד, צ' ואחרים (2009). אסטרטגיות חשיבה מסדר גבוה - מסמך מנחה למתכנני תכניות לימודים ארציות ומקומיות ולמפתחי חומרי למידה. משרד החינוך, המזכירות הפדגוגית, האגף לתכנון ולפיתוח תכניות לימודים. קישור למסמך

Tsemach, E., & Zohar, A. (2023). "The king will be corrupt too!" Thinking-based teaching in bible studies. *Journal of Curriculum Studies*, 55(1), 63-81.

יחידה 3 – הטיעון והוראה דיאלוגית

Tsemach, E., & Zohar, A. (2021). *The intersection of gender and culture in*

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argumentative writing. *International Journal of Science Education*, 43(6), 969-990.

Alexander, R. (2020). *A dialogic teaching companion*. Routledge.

יחידה 4 – מטה קוגניציה  
בן-דוד, ע' (2009). מטה-קוגניציה בהוראה ולמידה. אאוריקה (27). המרכז הארצי למדע והמרכז  
לחינוך מדעי וטכנולוגי באוניברסיטת ת"א.  
קישור למאמר

*Metacognition: Taking Charge of Our Own Thinking*. pp 83-109.  
In: Swartz, R. J., Costa, A. L., Beyer, B. K., Reagan, R., & Kallick, B. (2010). *Thinking-  
Based Learning: Promoting Quality Student Achievement in the 21st Century*.  
Teachers College Press. 1234 Amsterdam Avenue, New York, NY 10027.

Quigley, A., Muijs, D., & Stringer, E. (2018). *Metacognition and Self-Regulated  
Learning*. Guidance Report. Education Endowment Foundation. [Link](#)

Schraw, G., & Moshman, D. (1995). Metacognitive theories. *Educational psychology  
review*, 7, 351-371.

יחידה 5 – אתגרים בהוראת חשיבה והוראת חשיבה לתלמידים בעלי הישגים נמוכים  
Zohar, A., & David, A. B. (2008). Explicit teaching of meta-strategic knowledge in  
authentic classroom situations. *Metacognition and learning*, 3, 59-82.

Resnick, M. S. (2023). Teachers' presentation of higher-order thinking questions and  
student engagement: Missing out on HOT opportunities. *Thinking Skills and  
Creativity*, 50, 101412.

#### Grading Scheme:

Essay / Project / Final Assignment / Home Exam / Referat 35 %  
Submission assignments during the semester: Exercises / Essays / Audits / Reports  
/ Forum / Simulation / others 50 %  
Attendance / Participation in Field Excursion 15 %

#### Additional information:

Below are the components of the grade:  
Attendance - 15%  
Submission of 3 assignments - 85%  
First two assignments, each - 25%  
Final assignment - 35%