Using a Virtual Learning Environment for Formative Assessment in an Optometry Program

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Formative Assessment FA:

- ✓ Improves student understanding
- ✓ Provides feedback for both teachers and students
- ✓ Allows teachers to modify instruction
- ✓ Enables students to monitor their own progress
- ✓ Assessment FOR learning vs. assessment OF learning
- ✓ Better retention of material

Virtual Learning Environment:

- 💻 Web based learning platform e.g. Moodle
- 💻 Enables virtual teacher student interaction
- 💻 Ideal for formative assessment
- 💻 Very flexible
- 💻 Convenient for large groups of students
- 💻 Can safeguard against cheating

Hadassah College Optometry Department: 3 models of FA for 3 different courses

Visual Optics:

- 📠 10 tasks on 10 topics = 10% of final grade
- 📠 Task: write a visual optics problem + worked answer
- 📠 Submitted online via Moodle
- 📠 Grades and feedback given by teacher via Moodle
- 📠 Student can resubmit after corrections
- 📠 Task is time sensitive
- 📠 Students were asked to be creative
- 📠 Advantages:
    - 📠 very little preparation required
    - 📠 individual feedback for students
    - 📠 students demonstrated enthusiasm for what can be a "dry" subject
    - 📠 grading was sometimes entertaining!
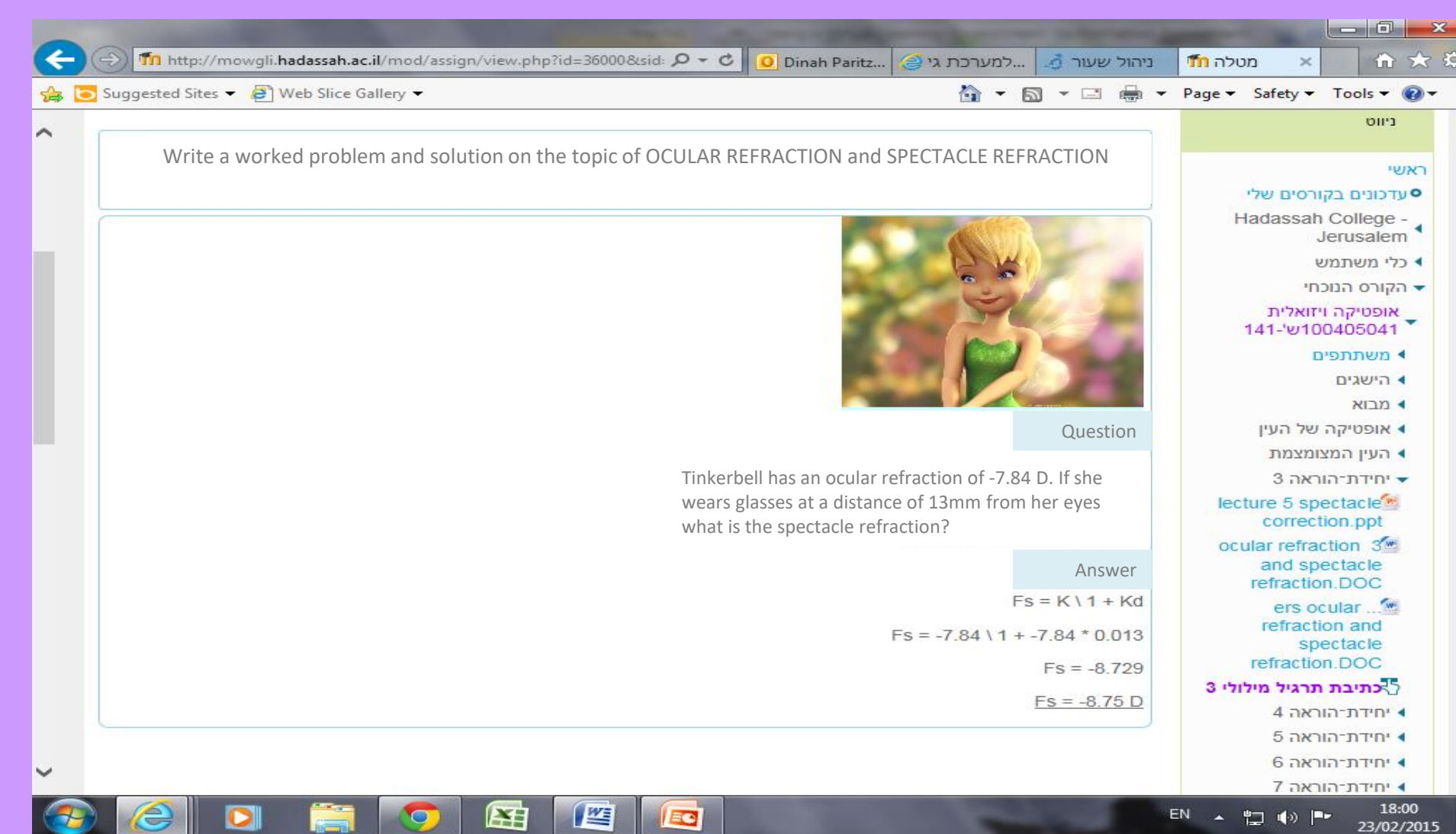- 📠 Disadvantages: grading is time consuming

Anatomy:

- Series of quizzes prepared in advance:
    - MCQs
    - Matching words to diagrams
    - Ordering
- Automatic grading by Moodle
- Advantages:
    - Requires students to review material throughout semester
    - No work required by teacher during semester
    - Interesting for students
- Disadvantages:
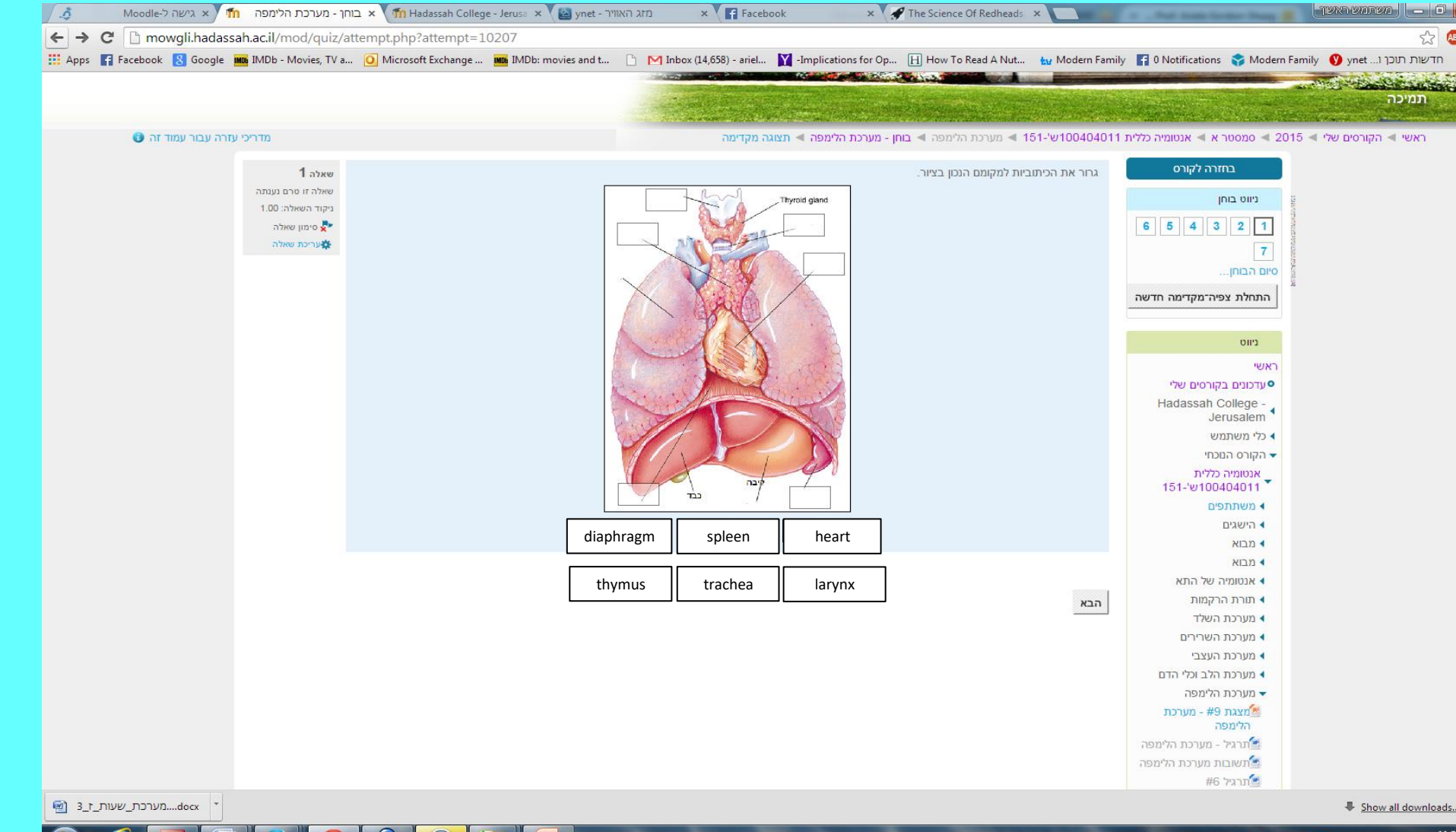   - Preparation is time consuming
    - Limited teacher/student interaction

Binocular Vision Laboratory:

- Students formed groups of 3 via Moodle
- Each group chose binocular test to research and prepare PPT presentations
- Students uploaded presentations to Moodle for all students to see
- 10% of final grade
- Advantages:
    - efficient way to divide into groups
    - effective way for students to pick topic they are interested in
    - independent and interesting research projects
- Disadvantages: technical issues with uploading heavy programs (movie clips)

Example:

Example:

Example: