Supporting Information

ezCADD: A Rapid 2D/3D Visualization Enabled Web Modeling Environment for Democratizing Computer-Aided Drug Design

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ezCADD User Questionnaire for First-Year Pharmacy Students
IRB Exempt Status Approved, Study Number: IRB-FY2019-38
Cohort size: 95 Exercise and survey duration: 20 minutes

Question #1 Before starting the ezCADD exercise, please rate your PRIOR hands-on experience in molecular visualization and modeling:

a. Zero experience
b. A little bit experience
c. Some experience
d. Good experience

Question #2 How does ezCADD visualization help you understand the structures of β2 adrenergic receptor and its drug alprenolol?

a. Not helpful
b. Somewhat helpful
c. Helpful
d. Very helpful

Question #3 How does ezCADD molecular docking help you understand the process of drug-protein target binding and recognition?

a. Not helpful
b. Somewhat helpful
c. Helpful
d. Very helpful

Question #4 Were you able to follow the instructions and complete the molecular docking experiment on your own?

a. Yes
b. No
c. Partially
Question #5 After completing the ezCADD exercise, please rate your hands-on experience in molecular visualization and modeling:

- a. Zero experience
- b. A little bit experience
- c. Some experience
- d. Good experience

Question #6 Please rate your overall ezCADD user experience:

- a. Easy and user friendly
- b. Difficult and not user friendly

| Student Survey Data | Q1 response | Count | Frequency |
|---------------------|-------------|-------|-----------|
| Zero experience     | 30          | 31.58%|
| A little bit experience | 31         | 32.63%|
| Some experience     | 25          | 26.32%|
| Good experience     | 9           | 9.47%  |

| Q2 response | Count | Frequency |
|-------------|-------|-----------|
| Not helpful | 0     | 0.00%     |
| Somewhat helpful | 14   | 14.74%    |
| Helpful     | 50    | 52.63%    |
| Very helpful| 31    | 32.63%    |

| Q3 response | Count | Frequency |
|-------------|-------|-----------|
| Not helpful | 1     | 1.05%     |
| Somewhat helpful | 20  | 21.05%    |
| Helpful     | 53    | 55.79%    |
| Very helpful| 21    | 22.11%    |

| Q4 response | Count | Frequency |
|-------------|-------|-----------|
| Yes         | 80    | 84.21%    |
| No          | 2     | 2.11%     |
| Partially   | 13    | 13.68%    |
### Q5 response

| Response            | Count | Frequency  |
|---------------------|-------|------------|
| Zero experience     | 0     | 0.00%      |
| A little bit experience | 20   | 21.05%     |
| Some experience     | 46    | 48.42%     |
| Good experience     | 29    | 30.53%     |

### Q6 response

| Response                          | Count | Frequency  |
|-----------------------------------|-------|------------|
| Easy and user friendly            | 84    | 88.42%     |
| Difficult and not user friendly   | 11    | 11.58%     |