

Appendix 1. Questionnaire results for students who conducted the HMD-VRC group and the RP group.

| Question item                                                                                                                           | Group   | SD | D | A  | SA |
|-----------------------------------------------------------------------------------------------------------------------------------------|---------|----|---|----|----|
| Do you feel that your radiographic skills have improved?                                                                                | HMD-VRC | 0  | 7 | 47 | 27 |
|                                                                                                                                         | RP      | 0  | 0 | 67 | 20 |
| Did you gain a better understanding of the anatomical structure of the human body at the radiographic areas you experienced this study? | HMD-VRC | 0  | 0 | 73 | 27 |
|                                                                                                                                         | RP      | 0  | 0 | 73 | 27 |
| Have you evaluated the images and gained a better understanding of acceptable imaging conditions?                                       | HMD-VRC | 0  | 7 | 67 | 27 |
|                                                                                                                                         | RP      | 0  | 0 | 53 | 47 |
| Were you motivated to learn?                                                                                                            | HMD-VRC | 0  | 0 | 33 | 53 |
|                                                                                                                                         | RP      | 0  | 0 | 53 | 47 |
| Has your interest in radiographic techniques increased?                                                                                 | HMD-VRC | 0  | 0 | 27 | 73 |
|                                                                                                                                         | RP      | 0  | 0 | 20 | 80 |
| Did you gain a better understanding of the differences in imaging conditions?                                                           | HMD-VRC | 0  | 0 | 53 | 47 |
|                                                                                                                                         | RP      | 0  | 0 | 80 | 20 |
| Were you satisfied with the learning process?                                                                                           | HMD-VRC | 0  | 0 | 40 | 53 |
|                                                                                                                                         | RP      | 0  | 0 | 53 | 47 |
| Did you gain a better understanding of the location of the X-ray beam?                                                                  | HMD-VRC | 0  | 0 | 60 | 40 |
|                                                                                                                                         | RP      | 0  | 0 | 60 | 33 |
| Did you gain a better understanding of technical terms?                                                                                 | HMD-VRC | 0  | 0 | 73 | 20 |
|                                                                                                                                         | RP      | 0  | 0 | 80 | 7  |

|                                                                                                           |         |   |   |    |    |
|-----------------------------------------------------------------------------------------------------------|---------|---|---|----|----|
| Did you gain a better understanding of the SID?                                                           | HMD-VRC | 0 | 0 | 67 | 33 |
|                                                                                                           | RP      | 0 | 0 | 53 | 47 |
| Did you gain a better understanding of the irradiation field?                                             | HMD-VRC | 0 | 0 | 73 | 27 |
|                                                                                                           | RP      | 0 | 0 | 60 | 40 |
| Did you concentrate on your training?                                                                     | HMD-VRC | 0 | 0 | 27 | 73 |
|                                                                                                           | RP      | 0 | 0 | 40 | 60 |
| Did you gain a better understanding of radiography safety management?                                     | HMD-VRC | 0 | 0 | 67 | 33 |
|                                                                                                           | RP      | 0 | 0 | 73 | 20 |
| Did you gain a better understanding of patient positioning?                                               | HMD-VRC | 0 | 0 | 67 | 33 |
|                                                                                                           | RP      | 0 | 0 | 53 | 40 |
| Did you gain a better understanding of the sequence of processes from preparation to imaging?             | HMD-VRC | 0 | 0 | 67 | 27 |
|                                                                                                           | RP      | 0 | 0 | 40 | 60 |
| Did you gain a better understanding of how to use the equipment?                                          | HMD-VRC | 0 | 0 | 40 | 53 |
|                                                                                                           | RP      | 0 | 0 | 47 | 53 |
| Did this study improve your motivation to learn more about learning radiography techniques in the future? | HMD-VRC | 0 | 0 | 33 | 67 |
|                                                                                                           | RP      | 0 | 0 | 13 | 87 |
| Are you interested in classes using VR?                                                                   | HMD-VRC | 0 | 0 | 33 | 67 |
|                                                                                                           | RP      | 0 | 0 | 47 | 47 |

(%)

A five-point questionnaire (Strongly Agree; SA, Agree; A, Neither Agree nor Disagree, Disagree; D, Strongly Disagree; SD) was administered for students who conducted the HMD-VRC group (n=15) and RP group (n=15). There were no significant differences between the HMD-VRC group and the RP group on all questions.