SDC Table 2: Usability evaluation questionnaire for box trainer

# Face validity rating system for laparoscopic box trainer

INOVUS: LAP-PACK:

|  |  |
| --- | --- |
| Abdominal cavity | Visualization |
| Enclosed cavity | Use of camera |
| Elastic/flexible wall | Easily adjustable camera |
| Trocar used at port site | Dedicated light source |
| A0 – does not fulfill any of the criteria | B0 – does not fulfill any of the criteria |
| A1 – fulfills criterion 1 | B1 – fulfills criterion 1 |
| A2 – fulfills criterion 2 | B2 – fulfills criterion 2 |
| A3 – fulfills all 3 criteria | B3 – fulfills all 3 criteria |
| Total score: A + B (out of 6) |  |

# Lap-Pack usability questionnaire

**Instructions** – Mark your level of agreement using a ‘circle’ (from a minimum of 1 to a maximum of 7) with the following statements about your experience with the tool during the experimental session you completed just now.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Disagree Agree | | | | | | |
| Structure  and  Usability | Durable | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Waterproof | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Ease of Assembly/disassembly | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Portability | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Lightweight | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Task  View  and  Camera | Easy task view | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Tasks in visual field | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Isolated from ambient light | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Background colour/contrast | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Angular view of the task | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Image quality | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| No shadow | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Image Colour | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Constant/non-shaky view | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Replicable view of actual field | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Task specific skills | Peg Transfer | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Precision cutting | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Ligating loop | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Extra-corporeal knot tying | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Intra-corporeal knot tying | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Task completion probability | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Speed and efficiency | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Precision and accuracy | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Depth perception | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Appropriate port sites location | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Angle of task | 1 | 2 | 3 | 4 | 5 | 6 | 7 |