Supplementary Table 1. Questions and answers for defining and situating the field

Section	Round	Questions	Answers: # (*% after exclusion*)	Consensus & Notes
Defining the field of skill acquisition	1	*Skill acquisition is the study of processes involved in the performance and learning of actions across different time scales. It consists of several branches of research (e.g., motor learning, motor control, expert performance, talent identification and development) and parts of larger fields (e.g., psychology, biomechanics, coaching, neuroscience, physical education, physical activity).* Do you believe that the above definition accurately describes the FIELD of skill acquisition?	Yes: **3 (14%)** No: **1 (5%)** Partially: 18 **(82%)** I don't feel qualified: **0**	The definition of the field presented in round one was partially described the field. In round 2 participants build a consensus definition (See below and main paper).
	2	Participants were given a list of phrases derived from qualitative responses (supplement 2) and asked to drag and drop these to create a definition. We then used the most popular choices to create a consensus definition (see main paper)		
Defining the role of skill acquisition specialists	1	*The role of a skill acquisition practitioner involves the application of knowledge of the field to enhance and measure the acquisition of skilled or competent sport or movement performance. It influences aspects of sports coaching, psychology, performance analysis, strength and conditioning, sport administration, and exercise/physical activity prescription. Examples include, but are not limited to, the best ways to design practice and learning environments or to measure sport and movement performance.* Do you believe that the above definition accurately describes	Yes: **7 (32%)** No: **1 (5%)** Partially: 14 **(64%)** I don't feel qualified: **0**	The definition of the field presented in round one was partially described the field. In round 2 participants build a consensus definition (See below and main paper).

<table>
<tr><td></td><td></td><td>the ROLE of a skill acquisition practitioner in sport?</td><td></td><td></td></tr>
<tr><td></td><td>2</td><td colspan="3">Participants were given a list of phrases derived from qualitative responses (supplement 2) and asked to drag and drop these in order to create a definition. We then used the most popular choices to create a consensus definition (see main paper).</td></tr>
<tr><td></td><td>1</td><td>In this survey we are using the term 'skill acquisition practitioner' to describe someone who has expertise in the field of skill acquisition and the role of someone who applies this expertise. Do you believe this is the right term to describe this person?</td><td>Yes: 13 (59%)
No: 3 (14%)
Partially: 6 (27%)
I don’t feel qualified: 0</td><td></td></tr>
<tr><td></td><td>2</td><td>The panel did not agree that 'skill acquisition practitioner' was the right term but acknowledged that is hard to find a term to capture the breadth of the role. Please rank the below terms that were suggested by the panel from best to describe the role to worst.</td><td colspan="2">
<table>
<tr><th></th><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th><th>7</th><th>8</th><th>Mean Rank</th></tr>
<tr><td>Skill Acquisition Specialist</td><td>11</td><td>4</td><td>1</td><td>1</td><td>1</td><td>0</td><td>0</td><td>0</td><td>1.72</td></tr>
<tr><td>Skill Acquisition Practitioner</td><td>5</td><td>10</td><td>2</td><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1.94</td></tr>
<tr><td>Skill Learning Specialist</td><td>0</td><td>2</td><td>4</td><td>4</td><td>4</td><td>3</td><td>0</td><td>1</td><td>4.33</td></tr>
<tr><td>Skill Learning Practitioner</td><td>1</td><td>1</td><td>1</td><td>6</td><td>3</td><td>4</td><td>2</td><td>0</td><td>4.61</td></tr>
<tr><td>Skill Acquisition Coach</td><td>1</td><td>0</td><td>4</td><td>1</td><td>2</td><td>3</td><td>6</td><td>1</td><td>5.28</td></tr>
<tr><td>Skill Specialist</td><td>0</td><td>1</td><td>2</td><td>1</td><td>3</td><td>6</td><td>5</td><td>0</td><td>5.44</td></tr>
<tr><td>Learning Designer</td><td>0</td><td>0</td><td>3</td><td>4</td><td>3</td><td>0</td><td>1</td><td>7</td><td>5.72</td></tr>
<tr><td>Skill Acquisitionist</td><td>0</td><td>0</td><td>1</td><td>0</td><td>2</td><td>2</td><td>4</td><td>9</td><td>6.94</td></tr>
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	2	If you identified as a practitioner, coach, coach developer, or someone who works in sport... please describe and explain the kinds of problems you are asked to address using your knowledge of skill acquisition? We are aiming to create an example list of the role skill acquisition knowledge plays in performance sport.	The results of the content analysis for this question can be found in Figure 1 in the main manuscript.	
Skill acquisition in the MDT	1	Do you believe that skill acquisition is a unique field of sports science in its own right?	Yes: **18 (82%)** No: **4 (18%)** I don't feel qualified: **0**	Yes – after round 1. The 'no' responses were from 2 coach developers, 1 coach, and one practitioner.
	1	Do you believe that skill acquisition is underrepresented in sport compared to other fields of sport science?	Yes: **20 (91%)** No: **2 (9%)** I don't feel qualified: **0**	Yes- after round 1. The 'no' responses were from 1 coach developer and 1 practitioner.
	1	Do you believe that the role of a skill acquisition practitioner is different to that of a sport psychologist?	Yes: **20 (91%)** No: **0 (0%)** Partially: 2 **(9%)** I don't feel qualified: **0**	Yes – after round 1.
	1	Do you believe that the role of a skill acquisition practitioner is different to that of a coach?	Yes: **18 (82%)** No: **2 (9%)** Partially: 2 **(9%)** I don't feel qualified: **0**	Yes – after round 1. The 'no' and 'partially' responses were from 2 coach developers, 1 coach, and one practitioner.

	1	Do you believe that the role of a skill acquisition practitioner is different to that of a coach developer?	Yes: **15 (68%)** No: **1 (5%)** Partially: 6 **(27%)** I don't feel qualified: **0**	Yes – after round 2. The no's and partially' s after round 1 were again focused on coach developers themselves. Other responders suggested they didn't really understand what coach developers do. Then agreement was reached after a definition was offered.
	2	*The role of the coach developer is a combination of training the trainer and mentoring, with a focus on supporting the coach on the job (Australian Sports Commission).* Do you believe a coach developer needs knowledge of skill acquisition to fulfil the role above?	Yes: **15 (83%)** No: **3 (17%)** Partially: 0 **(0%)** I don't feel qualified: **0**	
	2	Do you believe that the role of a 'skill acquisition practitioner' that you defined earlier requires more specialised knowledge than a coach developer?	Yes: **16 (89%)** No: **2 (11%)** Partially: 0 **(0%)** I don't feel qualified: **0**	
	2	To what extent do the roles listed below in sport require knowledge of the field of skill acquisition?	See Supplementary Table 2	Yes - agreement reached on all roles aside from Physiologist and Nutritionist.
Knowledge Requirements	1	Do you believe that the following areas of knowledge (as you understand them) are needed for someone to be a competent skill acquisition practitioner?	See Supplementary Table 3	Yes, the panel agreed all the areas of knowledge were needed, but to varying levels.
Technical Skills	1	Do you believe that the skill (as you understand it) is needed for someone to be a competent skill acquisition practitioner?	See Supplementary Table 4	Yes, the panel agreed all the skills were needed, but to varying levels.
Professional Competencies	1	Please indicate what you believe to be the importance of each of the professional competencies (defined above) to the role of a skill acquisition practitioner.	See Supplementary Table 5	Yes, the panel agreed all the competencies were needed, but to varying levels.

Supplementary Table 2. Questions and answers for defining the knowledge requirements of a skill acquisition specialist (Round 2)

To what extent do the roles listed below in sport require knowledge of the field of skill acquisition?	**Definitely needed**	**%**	**Partially needed**	**%**	**I don't feel qualified to answer**	**%**	**Not needed**	%	**Needed**
Skill Acquisition Specialist	18	100	0	0	0	0	0	0	100
Coach	12	67	6	33	0	0	0	0	100
Coach Developer	7	39	11	61	0	0	0	0	100
Strength and Conditioning Coach	7	39	10	56	0	0	1	6	94
Biomechanist	5	28	12	67	0	0	1	6	94
Performance Analyst	5	28	11	61	0	0	2	11	89
Sport Psychologist	4	24	10	59	1	6	3	18	82
Performance Director	4	22	10	56	0	0	4	22	78
Physiologist	1	6	9	50	0	0	8	44	56
Nutritionist	1	6	4	22	0	0	13	72	28
*The panel noted that physiotherapists and rehabilitation specialist should be included here as fields where significant knowledge of skill acquisition is required.									

Supplementary Table 3. Ranking of the importance of areas of knowledge requirements of a skill acquisition specialist (Round 1)

Do you believe that the following areas of knowledge (as you understand them) are needed for someone to be a competent skill acquisition practitioner?	**Definitely Needed**	**%**	**Partially Needed**	**%**	**Not Needed**	**%**	**I don't feel qualified**	**Overall Needed (%)**
Practice design	20	95.24	1	4.76	0	0.00	0	100.00
Practice structure	20	95.24	1	4.76	0	0.00	0	100.00
Representative design	19	90.48	2	9.52	0	0.00	0	100.00
Specificity of practice	18	85.71	3	14.29	0	0.00	0	100.00

Variability in practice	18	85.71	3	14.29	0	0.00	0	100.00
Motor learning	18	85.71	3	14.29	0	0.00	0	100.00
Questioning	18	85.71	3	14.29	0	0.00	0	100.00
Feedback	18	85.71	3	14.29	0	0.00	0	100.00
Expert performance	17	85.00	3	15.00	0	0.00	1	100.00
Challenge point framework	17	80.95	3	14.29	1	4.76	0	95.24
Focus of attention	17	80.95	4	19.05	0	0.00	0	100.00
Instruction use	17	80.95	4	19.05	0	0.00	0	100.00
Perceptual cognitive skill	17	80.95	4	19.05	0	0.00	0	100.00
Blocked practice	16	76.19	5	23.81	0	0.00	0	100.00
Deliberate practice	16	76.19	5	23.81	0	0.00	0	100.00
Implicit learning	16	76.19	5	23.81	0	0.00	0	100.00
Type of feedback	16	76.19	4	19.05	1	4.76	0	95.24
Observational learning	16	76.19	5	23.81	0	0.00	0	100.00
Coaching practice	16	76.19	5	23.81	0	0.00	0	100.00
Random practice	15	71.43	6	28.57	0	0.00	0	100.00
Individual differences	15	71.43	6	28.57	0	0.00	0	100.00
Decision-making	15	71.43	6	28.57	0	0.00	0	100.00
Technique change	15	71.43	6	28.57	0	0.00	0	100.00
Contextual interference	14	66.67	7	33.33	0	0.00	0	100.00
Massed practice	14	66.67	7	33.33	0	0.00	0	100.00
Game-based practice	14	66.67	7	33.33	0	0.00	0	100.00
Constraint-led approach	14	66.67	7	33.33	0	0.00	0	100.00
Theories of motor control	13	61.90	7	33.33	1	4.76	0	95.24
Ecological Dynamics	13	61.90	8	38.10	0	0.00	0	100.00
Non-linear pedagogy	13	61.90	8	38.10	0	0.00	0	100.00
Talent development	13	61.90	8	38.10	0	0.00	0	100.00
Deliberate play	13	61.90	8	38.10	0	0.00	0	100.00
Attentional control	13	61.90	8	38.10	0	0.00	0	100.00

Demonstration	13	61.90	8	38.10	0	0.00	0	100.00
Anticipation	13	61.90	8	38.10	0	0.00	0	100.00
Affective design	12	60.00	8	40.00	0	0.00	1	100.00
Pressure training	12	57.14	8	38.10	1	4.76	0	95.24
Information processing	12	57.14	9	42.86	0	0.00	0	100.00
Cognitive load	12	57.14	9	42.86	0	0.00	0	100.00
Ecological Psychology	11	52.38	10	47.62	0	0.00	0	100.00
Dynamical Systems	11	52.38	10	47.62	0	0.00	0	100.00
Reinvestment	11	52.38	10	47.62	0	0.00	0	100.00
Conscious motor control	11	52.38	10	47.62	0	0.00	0	100.00
Contextual information	11	52.38	10	47.62	0	0.00	0	100.00
Motor control	10	47.62	9	42.86	2	9.52	0	90.48
Talent identification	10	47.62	10	47.62	1	4.76	0	95.24
Relative age	10	47.62	10	47.62	1	4.76	0	95.24
Selection bias	10	47.62	9	42.86	2	9.52	0	90.48
Anxiety and performance	10	47.62	11	52.38	0	0.00	0	100.00
Visual search	10	47.62	10	47.62	1	4.76	0	95.24
Pattern recognition	10	47.62	10	47.62	1	4.76	0	95.24
Situational probabilities	10	47.62	10	47.62	1	4.76	0	95.24
Predictive processing	9	45.00	10	50.00	1	5.00	1	95.00
Quiet Eye	9	42.86	11	52.38	1	4.76	0	95.24
Perception of affordances	9	42.86	12	57.14	0	0.00	0	100.00
Active inference	8	42.11	9	47.37	2	10.53	2	89.47
Postural Cues	8	38.10	11	52.38	2	9.52	0	90.48
Motor imagery	8	38.10	12	57.14	1	4.76	0	95.24
Education of attention	7	33.33	14	66.67	0	0.00	0	100.00

Supplementary Table 4. Questions and answers for defining the skill requirements of a skill acquisition specialist (Round 1)

Do you believe that the skill (as you understand it) is needed for someone to be a competent skill acquisition practitioner?	**Definitely Needed**	**%**	**Partially Needed**	**%**	**Not Needed**	**%**	**I don't feel qualified**	**Needed**
Measuring retention and transfer	17	80.95%	4	19.05%	0	0.00%	0.00%	100
Measuring learning	16	76.19%	5	23.81%	0	0.00%	0.00%	100
Developing measures of motor performance	15	71.43%	6	28.57%	0	0.00%	0.00%	100
Developing process measures	15	71.43%	5	23.81%	1	4.76%	0.00%	95
Calculate types of error (e.g. RMSE)	12	57.14%	8	38.10%	1	4.76%	0.00%	95
Experimental design	11	52.38%	7	33.33%	3	14.29%	0.00%	86
Capture developmental histories	10	47.62%	9	42.86%	2	9.52%	0.00%	80
Use of simulation methods, such as virtual reality	8	38.10%	10	47.62%	3	14.29%	0.00%	86
Capture speed accuracy trade offs	7	33.33%	14	66.67%	0	0.00%	0.00%	100
Measure response times	7	33.33%	14	66.67%	0	0.00%	0.00%	100
Measure eye movements	5	23.81%	13	61.90%	3	14.29%	0.00%	86

Supplementary Table 5. Questions and answers for defining the knowledge requirements of a skill acquisition specialist (Round 1)

Please indicate what you believe to be the importance of each of the professional competencies (defined above) to the role of a skill acquisition practitioner.	Extremely important		Very important		Moderately important		Slightly important		Not at all important	
Professional Relationships and Behaviours	18	90.00%	2	10.00%	0	0.00%	0	0.00%	0	0.00%
Application of Knowledge and Skills	16	80.00%	4	20.00%	0	0.00%	0	0.00%	0	0.00%
Understanding of the Delivery	16	80.00%	4	20.00%	0	0.00%	0	0.00%	0	0.00%

Environment										
Scientific Knowledge	15	75.00%	4	20.00%	1	5.00%	0	0.00%	0	0.00%
Problem Solving and Impact	15	75.00%	5	25.00%	0	0.00%	0	0.00%	0	0.00%
Communication	14	70.00%	6	30.00%	0	0.00%	0	0.00%	0	0.00%
Technical Skills	12	60.00%	7	35.00%	1	5.00%	0	0.00%	0	0.00%
Understanding and Use of Research	11	55.00%	6	30.00%	2	10.00 %	1	5.00%	0	0.00%
Self-Evaluation and Professional Development	9	45.00%	10	50.00%	1	5.00%	0	0.00%	0	0.00%
Management of Self, Others, and Practice	8	40.00%	10	50.00%	1	5.00%	1	5.00%	0	0.00%