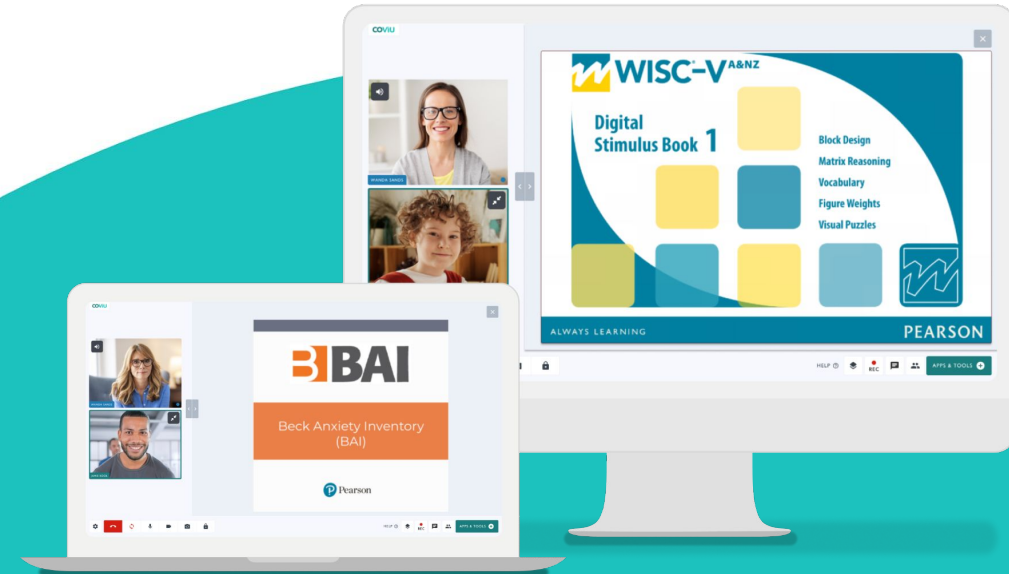


Benefits and Challenges of Delivering Cognitive Assessments Remotely

- **Dr Annie Banbury:** Head of Clinical Research, Coviu
- **Valorie O'Keefe:** Consultant Psychologist, Pearson Clinical
- **Peter Simpson-Young:** Telehealth Evangelist, Coviu



Introduction



Dr Annie Banbury
Coviu



Valorie O'Keefe
Pearson



Peter Simpson-Young
Coviu

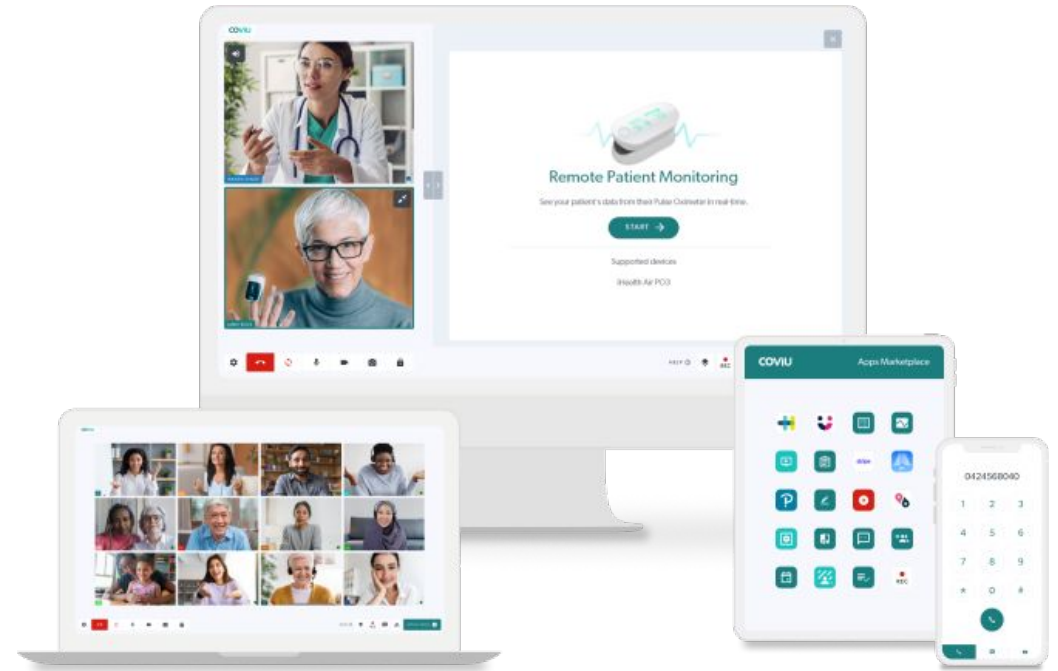
Agenda

- Introduction
- The CoviU Virtual Care Engagement Platform's
- Telehealth use for mental health consultations
- Key Pearson Assessments
 - Mental Health (Beck Scales)
 - Cognitive/Neuro (Wechsler Scales)
- Benefits of Remote Cognitive Assessments
- Key Challenges of Remote Cognitive Assessments
- The Future of Remote Cognitive Assessments
- Live Demo
- Q&A



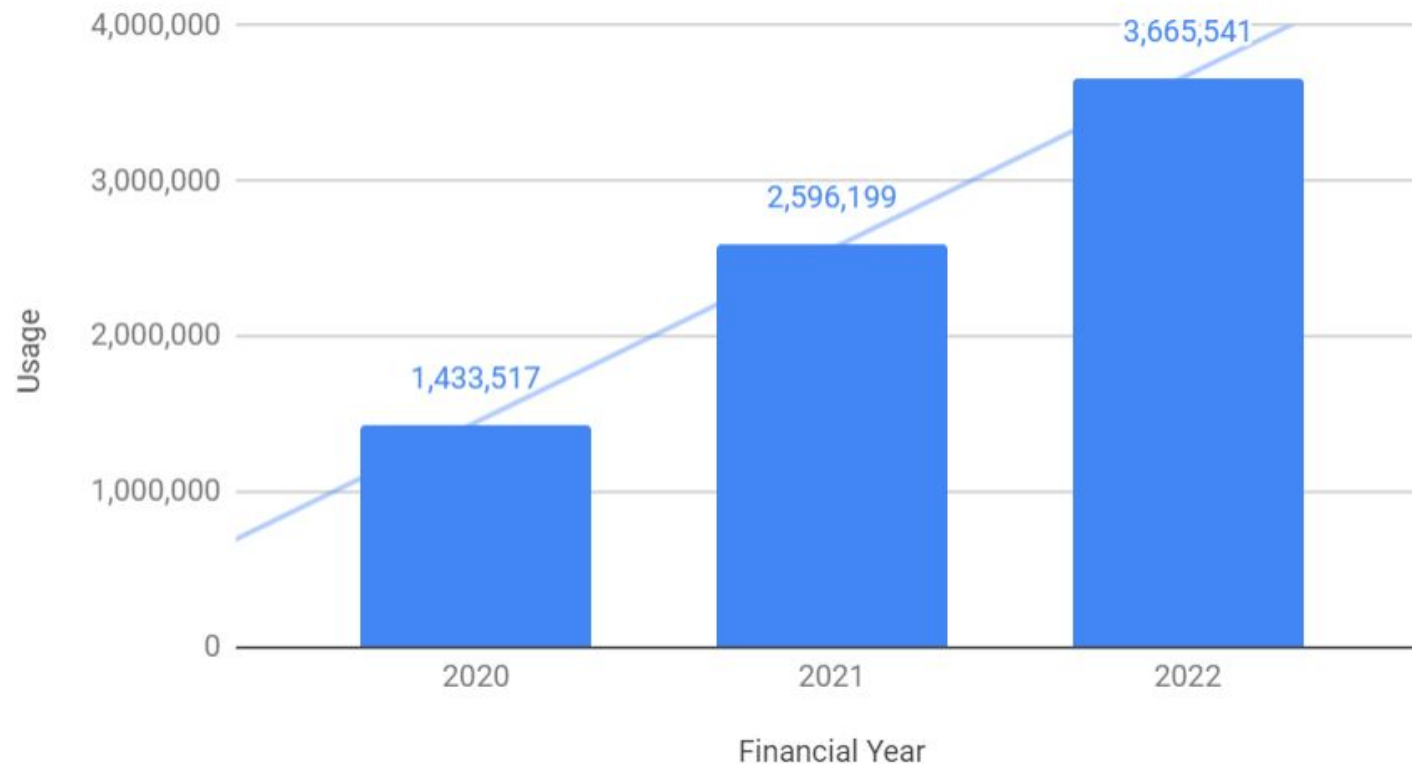
Coviu - Virtual Care Engagement Platform

- Australian company, CSIRO spinout
- Specially built for healthcare
- HIPAA Compliant
- Browser based - no need to download or install anything
- Rich in clinical tools
 - . Video & Phone Telehealth
 - . 50+ Apps
 - . Group Rooms
 - . Remote Patient Monitoring



Coviu - Virtual Care Engagement Platform (2020 - present)

Usage Growth over Years



- Growth of over **6250%**
- Coviu's usage grew from just **400 calls per day to over 10,000**
- Over **9 Million Telehealth Consults**
- **90,000+** Practitioners

Medicare Benefits Schedule (MBS), Australia Telehealth Summary

Total number of MBS consultations reported in Quarter 3, 2022

50.2M

Q3, 2022 ACTIVITY

Total number of telehealth consultations this quarter

11.1M

(overall % of MBS services delivered by telehealth this quarter)

22%



9.8M (88%)
by telephone



1.3M (12%)
by videoconference

General Practitioner Consultations

Total: 37M
Telehealth: 9.4M (25%)



Specialist Consultations

Total: 7M
Telehealth: 784K (11.2%)



Mental Health Consultations

Total: 2.9M
Telehealth: 733K (25%)



Nurse Practitioner Consultations

Total: 254K
Telehealth: 73K (29%)



Allied Health Consultations

Total: 2.9M
Telehealth: 42K (1.4%)

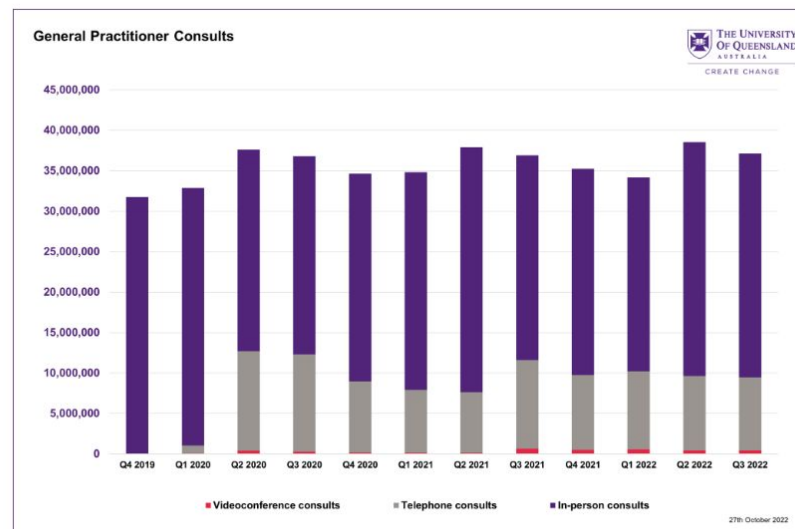
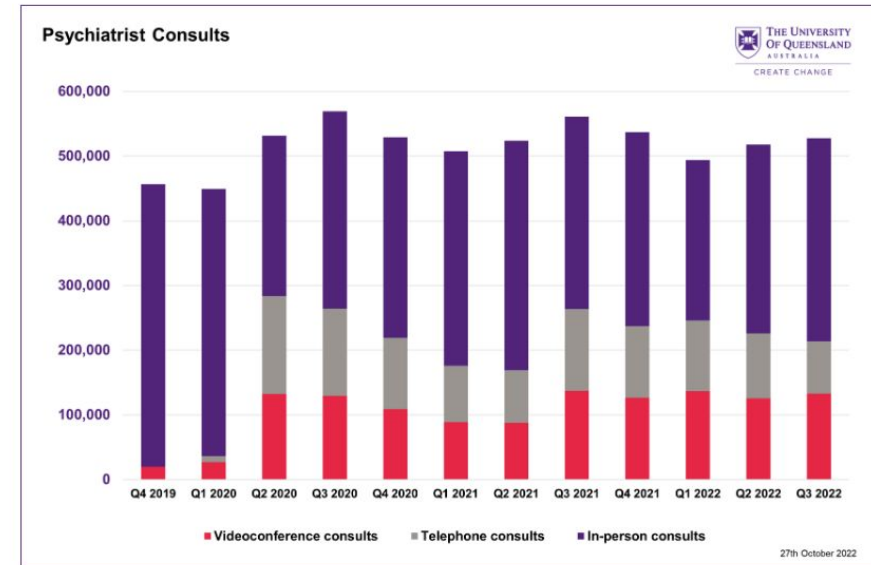
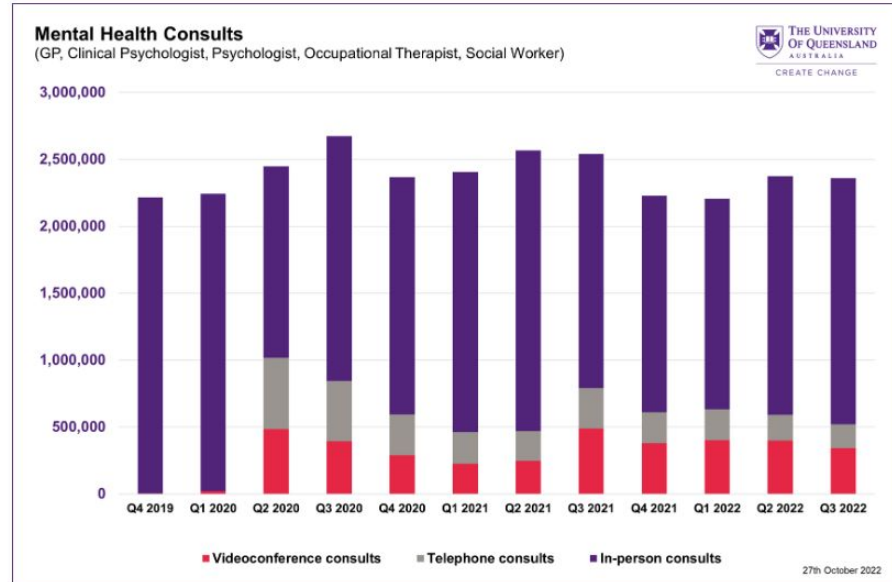


Snoswell, C.L., Caffery, L.J., Taylor, M.L., Haydon, H.M., Thomas, E., Smith, A.C. Centre for Online Health, The University of Queensland. Telehealth and coronavirus: Medicare Benefits Schedule (MBS) activity in Australia.

<https://coh.centre.uq.edu.au/telehealth-and-coronavirus-medicare-benefits-schedule-mbs-activity-australia>

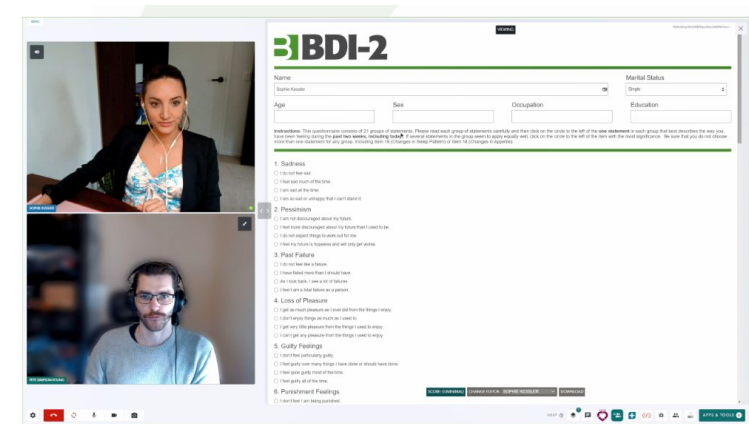
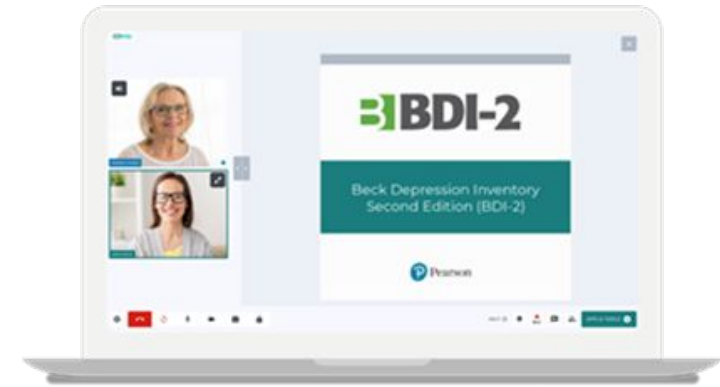
Published May 19, 2020. Accessed February 2023

MBS Medicare Data Q3 2022



Features of Remote Mental Health Assessments

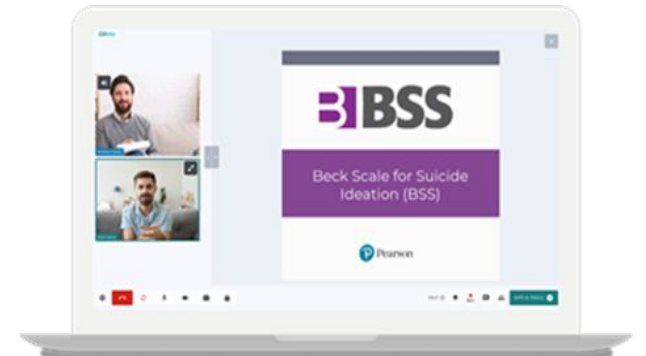
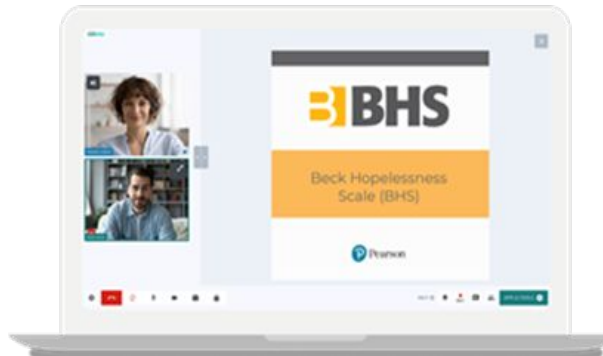
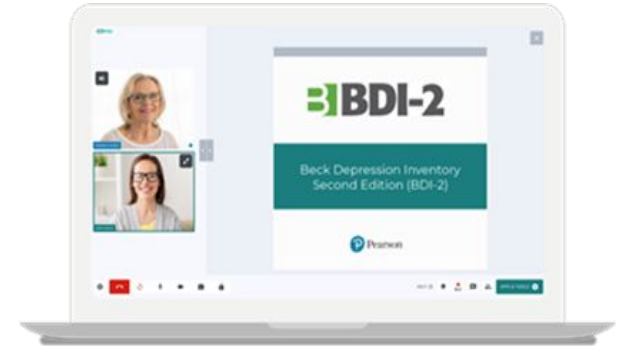
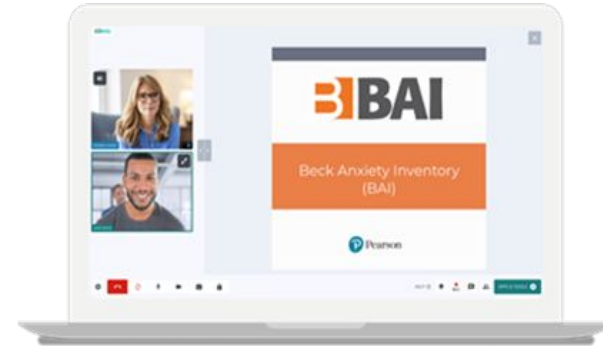
- A simple digital form accessible immediately on-screen from your CoviU meeting room
- Quick and easy for clients to self-administer the questionnaire
- Responses automatically scored and interpreted in real time
- Results are neatly stored in a downloadable PDF format for offline viewing and backed-up in CoviU's cloud storage




Key Pearson Assessments

Mental Health Assessments

- Beck Depression Inventory 2
- Beck Anxiety Inventory
- Beck Hopelessness Scale
- Beck Scale for Suicide Ideation



Results can be Downloaded & Saved as a PDF



Name

Sample Client

Marital Status

Married

Age

53

Sex

F

Occupation

Accountant

Education

16

This questionnaire consists of 20 statements. Please read the statements carefully one by one. If the statement describes your attitude for the **past week, including today**, choose **"TRUE"**. If the statement does not describe your attitude, choose **"FALSE"**.

Please be sure to read each statement carefully and mark every item.



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Beck Hopelessness Scale, BHS, Pearson, the PSI logo, and PsychCorp are trademarks in the U.S and/or other countries of Pearson

Education, Inc., or its affiliates(s).

This Pearson assessment is under license to Coviu.

TRADE SECRET INFORMATION

Not for release under HIPAA or other data disclosure laws that exempt trade secrets from disclosure.

[1.1 / 1 / QG]

BHS Assessment Results

Raw Score: 8
Diagnostic Range: Mild

Endorsed Items

Responds "True" to the following pessimistic statements:

2. |
7. |
9. |
14. |
20. |
- Res
5. |
6. |
10. |

Form Summary

Call started:
> Not started

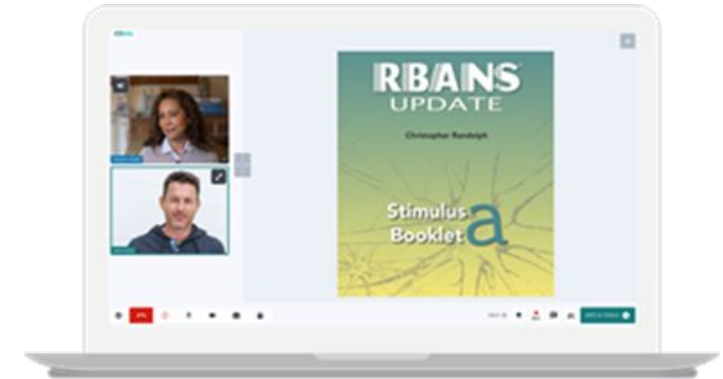
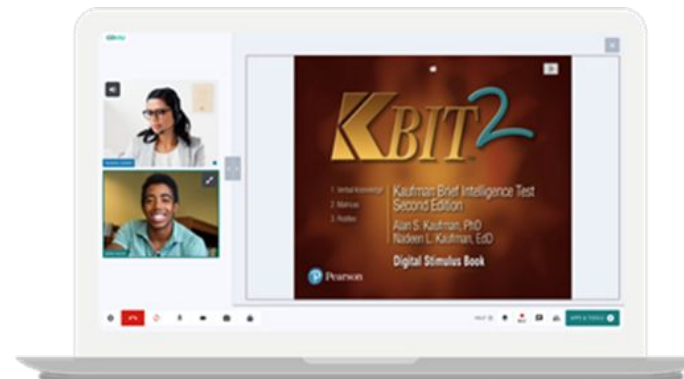
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> Valorie OKeefe

Key Pearson Assessments

Cognitive/Neuro Assessments

- WISC-V ANZ
- WAIS-IV ANZ
- WIAT-III ANZ
- KBIT-2
- RBANS UPDATE - A,B,C&D



Digital Stimulus Books

The Digital Stimulus Book is embedded within the CoviU call, allowing you to display the stimuli without leaving your window.

Each stimulus book is enhanced with additional security features that help prevent screenshots of stimuli being released online.



Benefits of Remote Assessments



Shorter waitlist and
early intervention

“Early diagnosis is so important
and its probably why we started
started in the first place”.

P2, Psychologist



Ease of access for
clients

“It’s less work in terms of the other
factors, like transport and getting
people to sessions”.

P5, Psychologist

Benefits of Remote Assessments



Expanded clinical footprint

“There’s obviously a financial and cost benefit that I get through using Coviu”.

P2, Psychologist



Better engagement through computers

“I’ve got some children who respond better to telehealth because it’s on the screen. They love screens”.

P16, Speech Pathologist



Greater flexibility and efficiency

“Because I do virtual assessment, I have some clients from outside of my local area. It just makes life easier”.

P5, Psychologist

Challenges of Remote Assessments

- Subtests with physical requirements
- Children with attention difficulties
- Technology-oriented issues



Challenge 1: Subtests With Physical Requirements

Trained vs Untrained Facilitator

Trained Professional Facilitator: If there is an onsite facilitator who is a well trained professional, virtual administration can involve the use of manipulatives (e.g. blocks) and response booklets. This method supports all of the traditional published WISC–V composite scores.

Guidance on working with a trained facilitator can be viewed in the [WISC V Guidelines](#), with supporting equivalency literature outlined.



Challenge 1: Subtests With Physical Requirements



No Facilitator or Parent/Guardian Facilitator

In some circumstances the only facilitator available may be someone who is not in a professional role (e.g. parent/guardian). It is not recommended to allow a parent/guardian to present blocks or response booklets to examinees.

Alternative scoring methods are recommended.

Challenge 1: Subtests With Physical Requirements

WISC-V Scores available when using an untrained facilitator:

- VCI (Similarities/Vocabulary)
- FRI (Matrix Reasoning/Figure Weights)
- Visual Puzzles
- WMI (Picture Span/Digit Span)
- AWM (LNS/Digit Span)
- QRI (Arithmetic/Figure Weights)

Non Motor Full Scale Score (Similarities/Vocabulary/Matrix Reasoning/Digit Span/Figure Weights/ Visual Puzzles)

- FSIQ and NMFSS correlate overall at .96 (ranges .94-.97)

WISC-V International Nonmotor Full Scale Score

The following scores were developed in order to meet the unique needs of examiners during the COVID-19 (Coronavirus) pandemic.

The Nonmotor Full Scale Score may be used in place of the Full Scale IQ composite when blocks and response booklets cannot be used during an assessment. These scores make use of Visual Puzzles in place of Block Design and do not include Coding.

This Nonmotor Full Scale Score can be derived by summing the scaled scores for Similarities, Matrix Reasoning, Digit Span, Vocabulary, Figure Weights and Visual Puzzles.

WISC-V International Nonmotor Full Scale Score Equivalents of Sums of Scaled Scores

Sum of Scaled Scores	NMFSS-1	Percentile Rank	Confidence Interval		Sum of Scaled Scores	NMFSS-1	Percentile Rank	Confidence Interval	
			90%	95%				90%	95%
6	40	<0.1	28-46	37-47	56	95	57	91-99	90-100
7	42	<0.1	40-48	39-49	57	97	47	93-101	92-102
8	43	<0.1	41-49	40-50	58	98	45	94-102	93-103
9	45	<0.1	43-51	42-52	59	99	47	95-103	94-104
10	46	<0.1	43-52	43-53	60	100	50	96-104	95-105
11	48	<0.1	45-54	45-54	61	101	53	97-105	96-106
12	49	<0.1	46-55	46-55	62	102	55	98-106	97-107
13	50	<0.1	47-56	47-56	63	103	58	99-107	98-108
14	52	0.1	49-58	49-58	64	105	63	101-109	100-110
15	53	0.1	50-59	49-59	65	106	66	102-110	101-111
16	54	0.1	51-60	50-60	66	107	68	103-111	102-112
17	56	0.2	53-61	52-62	67	108	70	104-112	103-113
18	57	0.2	54-62	53-63	68	109	73	105-113	104-114
19	59	0.3	56-64	55-65	69	110	75	106-114	105-115
20	60	0.4	57-65	56-66	70	111	77	107-115	106-116
21	61	0.5	58-66	57-67	71	112	79	107-116	107-117
22	62	1	59-67	58-68	72	114	82	109-118	109-119
23	63	1	60-68	59-69	73	115	84	110-119	110-120
24	64	1	61-69	60-70	74	116	86	111-120	111-120
25	65	1	62-70	61-71	75	117	87	112-121	112-121
26	66	1	63-71	62-72	76	118	88	113-122	113-122
27	67	1	64-72	63-73	77	119	90	114-123	113-123
28	68	2	65-73	64-74	78	120	91	115-124	114-124
29	69	2	66-74	65-75	79	121	92	116-125	115-125
30	70	2	67-75	66-76	80	122	93	117-125	116-126
31	70	2	67-75	66-76	81	122	94	118-126	117-127
32	71	3	68-76	67-77	82	124	95	119-127	118-128
33	72	3	69-77	68-78	83	125	95	120-128	119-129
34	73	4	70-78	69-79	84	126	96	121-129	120-130
35	74	4	71-79	70-80	85	127	96	122-130	121-131
36	75	5	72-80	71-81	86	128	97	123-131	122-132
37	76	5	73-81	72-82	87	129	97	124-132	123-133
38	77	6	74-82	73-83	88	130	98	125-133	124-134
39	78	7	75-83	74-84	89	131	98	126-134	125-135

Challenge 1: Subtests With Physical Requirements

Important telehealth guidelines by product

To help you administer our top assessments via Telehealth, we've created best practice guidelines to effectively assess your clients. You can find telehealth guidelines for many of our assessment products [here](#). Below are a few of the most used assessments in Australia and New Zealand. More are being added in the coming weeks.

ANZ Telehealth guidelines

- [WISC-V A&NZ](#)



Telehealth and the WISC-V^{A&NZ}

A telehealth session includes an examiner in one geographical location and an examinee at a different location. Using a high-speed internet connection and a secure software platform designed for web-based meetings (i.e., teleconference platform), an examiner and examinee join a shared web-based meeting via computers with audio and video capability. A facilitator may be required to join in the examinee location. The examiner and examinee can see and hear one another throughout the session. Text, pictures, and video can be shared through the teleconference platform.

The *Wechsler Intelligence Scale for Children–Australian and New Zealand Standardised Fifth Edition* (WISC–V^{A&NZ}; Wechsler, 2016) can be administered in a telehealth context by using digital tools from Q-global®, Pearson's secure online-testing platform. Specifically, Q-global digital assets (e.g., stimulus books) can be shown via the screen-sharing features of teleconference platforms to an examinee in another location. Details regarding Q-global and how it is used are provided on the [Q-global product page](#).

A spectrum of options is available for administering the WISC–V^{A&NZ} via telehealth. They vary based on the role, and presence of, the onsite facilitator:

1. **Trained professional facilitator:** If there is an onsite facilitator who is a well-trained professional, then telehealth can involve the use of manipulatives (e.g., blocks), response booklets, and audiovisual equipment. This method supports all of the traditional published WISC–V^{A&NZ} composite scores. Guidance on working with a trained facilitator can be viewed [here](#) and the supporting equivalency literature is outlined below.
2. **Parent/guardian facilitator:** During the COVID-19 (Coronavirus) pandemic, however, the only facilitator available may be someone who is not in a professional role (e.g. parent/guardian).

Challenge 2: Children With Attention Difficulties

“We might need to break down the assessment into multiple shorter sessions to accommodate for a child’s shorter attention span”.

P5, Psychologist

“Before an online assessment I have a session with the family/parents and children to set expectations about how the environment needs to be”.

P2, Psychologist



Challenge 3: Technology-Oriented Issues

“I always cover internet speed before starting the assessment”.

P2, Psychologist

“One of my concerns is that with the picture span subtest and numbers subtest there may be a lag between my screen and that of the examinee”.

P5, Psychologist



The Future of Remote Assessments

- Telehealth is another tool in the clinician's toolbox and is here to stay
- Telehealth extends the reach of assessments to clients to make earlier diagnosis
- Patient centered care is the vision
- Further Pearson assessments to be digitalised



Download the Pearson & Coviu Case Study



Peer Reviewed Publications

- **WISC-V + CoviU:** Hodge, M. A., Sutherland, R., Jeng, K., Bale, G., Batta, P., Cambridge, A., ... & Ganesalingam, K. (2019). *Agreement between telehealth and face-to-face assessment of intellectual ability in children with specific learning disorder*. Journal of Telemedicine and Telecare, 25(7), 431-437. <https://pubmed.ncbi.nlm.nih.gov/29874968/>
- **WAIS-IV + CoviU:** Mahon, S., Webb, J., Snell, D., & Theadom, A. (2021). Feasibility of administering the WAIS-IV using a home-based telehealth videoconferencing model. The Clinical Neuropsychologist, 1-13. <https://www.tandfonline.com/doi/abs/10.1080/13854046.2021.1985172>
- **CELF-5 + CoviU:** Sutherland, R., Trembath, D., Hodge, A., Drevensek, S., Lee, S., Silove, N., & Roberts, J. (2017). *Telehealth language assessments using consumer grade equipment in rural and urban settings: Feasible, reliable and well tolerated*. Journal of Telemedicine and Telecare, 23(1), 106–115. <https://pubmed.ncbi.nlm.nih.gov/26768598/>

Pricing & Additional Assessments Through CoviU

Psychology Pearson Assessments on CoviU	
Wechsler Intelligence Scale for Children 5th Ed (WISC-V A&NZ)	\$20p/month
Wechsler Adult Intelligence Scale 4th Ed (WAIS-IV A&NZ)	\$20p/month
Wechsler Individual Achievement Test 3rd Ed (WIAT-III A&NZ)	\$20p/month
Kaufman Brief Intelligence Test 2nd Ed (KBIT-2)	\$15p/month
Beck Depression Inventory 2nd Ed (BDI-2)	\$10p/month
Beck Hopelessness Scale (BHS)	\$10p/month
Beck Scale for Suicide Ideation (BSS)	\$10p/month
Beck Anxiety Inventory (BAI)	\$10p/month
Repeatable Battery for the Assessment of Neuropsychological Status Update (RBANS) - Stimulus Book A, B, C & D	\$15p/month per book

- Monthly subscription (e.g. \$15 or \$20 per stimulus book, per account, per month)
- Pricing includes:
 - Unlimited number of users
 - Unlimited number of administrations
- Stimulus books are sold separately
 - Including assessments with multiple stimulus books
- Still require scoring record forms (or Q-Global)
- CoviU plan is priced separately

Self-Report Questionnaires on CoviU	
Depression Anxiety Stress Scales (DASS-21)	Free
General Anxiety Disorder-7 (GAD-7)	\$2.50p/month
Kessler Psychological Distress Scale 10 (K10)	\$2.50p/month
Posttraumatic Stress Disorder Checklist (PCL-5)	\$2.50p/month
Patient Health Questionnaire-9 (PHQ-9)	\$2.50p/month

Speech Pathology Pearson Assessments on CoviU	
Clinical Evaluation of Language Fundamentals 5th Ed (CELF-5 A&NZ)	\$20p/month
Goldman-Fristoe Test of Articulation 3rd Ed (GFTA-3)	\$15p/month
Clinical Evaluation of Language Fundamentals Preschool 3rd Ed (CELF P-3 A&NZ)	\$15p/month
Peabody Picture Vocabulary Test 5th Ed (PPVT-5) - Forms A & B	\$15p/month per book
Expressive Vocabulary Test 3rd Ed (EVT-3) Forms A & B	\$15p/month per book

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