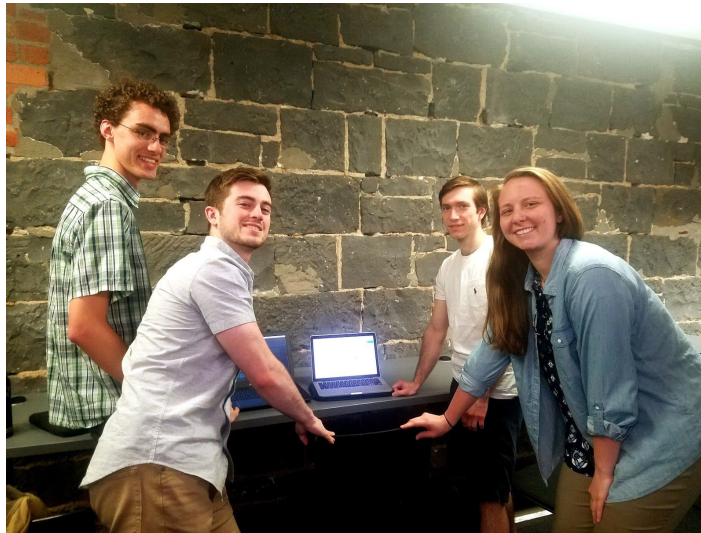# Combating Youth Unemployment: Developing an Australian Digital Work Readiness Tool

Supplemental Materials: Appendix

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Melbourne D18

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Sponsor:
The Brotherhood of St Laurence

An Interactive Qualifying Project submitted to the faculty of Worcester Polytechnic Institute in partial fulfillment of the requirements for the Degree of Bachelor of Science

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Stalled economy	Matt Freed
Job automation	John Dyer
Skills gap	Jonathan Redus
Consequences	Madison Stahl
Health issues	Madison Stahl
Crime	Madison Stahl
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The Digital Work Readiness Skills Tool - Initial Design: Industries Section	John Dyer & Matt Freed
The Digital Work Readiness Skills Tool - Final Design	John Dyer & Matt Freed
Sponsor Description	All

Appendix B: Research Tools

IRB Approval Form

Parental Consent for Minors Form

Informed Consent Agreement for Participation in a Research Study for Youth Under the Age of 18

Researchers: John Dyer, Matt Freed, Jonathan Redus, Madison Stahl

Contact Information: bsld18@wpi.edu or (04) 0604 5529

Title of Research Study: Combating Youth Unemployment: Developing an Australian Digital Work Readiness Tool

Sponsor: The Brotherhood of St Laurence

Introduction
Your child is being asked to participate in a research study. Before you agree to this, however, you and your child must be fully informed about the purpose of the study, the procedures to be followed, and any benefits, risks or discomfort that your child may experience as a result of their participation. This form presents information about the study so that you may make a fully informed decision regarding your child's participation.

Purpose of the study: We are a group of students from Worcester Polytechnic Institute, a private university in America. We are here in Australia working with The Brotherhood of St Laurence to help them get a better understanding of the current job market and the skills required for youth to succeed. Along with this, we will be digitizing their current work readiness skills tool.

Procedures to be followed: We have selected your child for a focus group because he/she could potentially use this tool during a program in BSL. We will use their feedback on potential layouts of the tool to help us tailor the tool to make sure that the tool appeals to its users. This focus group will take place in an open-discussion setting with 6-10 other youth and will take approximately 30 minutes. We ask that your child gives honest and thoughtful answers to our questions. There are no right or wrong answers.

Risks to study participants: If your child is uncomfortable with a question, he/she does not need to answer it. If your child is willing to be recorded, we will record this focus group, analyze the data, and delete the recording.

Benefits to research participants and others: There are no immediate benefits to the participant. However, this testing will make sure that the tool is usable and appealing to youth,

so that they can use the tool to target the development of their skills to become more employable.

Record keeping and confidentiality: The data will be kept in a password protected file that only the researchers have access to. This information is very valuable to us, and we will also respect your child's privacy. We will not record your child's name, however, we will record their age. This means that the age will be connected to your child's response, but your child will not be identifiable. "Records of your participation in this study will be held confidential so far as permitted by law. However, the study investigators, the sponsor or it's designee and, under certain circumstances, the Worcester Polytechnic Institute Institutional Review Board (WPI IRB) will be able to inspect and have access to confidential data that identify you by name. Any publication or presentation of the data will not identify you."

Your participation in this research is voluntary. Your refusal for your child to participate will not result in any penalty. Your child may decide to stop participating in the research at any time without penalty or loss of benefits. The project investigators retain the right to cancel or postpone the experimental procedures at any time they see fit.

By signing below, you acknowledge that you have been informed about and consent your child to be a participant in the study described above. Make sure that your questions are answered to your satisfaction before signing. You are entitled to retain a copy of this consent agreement.

_____   Date: _____
Study Participant Signature

_____
Study Participant Name (Please print)

_____   Date: _____
Parent/Guardian Signature

_____
Parent/Guardian Name (Please print)

Research Tool 2: Focus Groups

<u>Protocol and General Process</u>

<u>Roles</u>
John: Demonstrator
Matt: Moderator/Speaker
Jonathan: Note taker- answers to questions
Maddie: Note taker- general notes

<u>Introduction Script</u>
 Hello, we are a group of students from Worcester Polytechnic Institute, a private university in America. Our names are John Dyer, Matt Freed, Jonathan Redus and Madison Stahl. We are here in Australia working with The Brotherhood of St Laurence to help them figure out what skills youth need in the job market. Also, we will be making the work readiness skills tool into a website. At the end of this, our research will be published. We are here today to hold a focus group with you. You were picked for this because you might use this tool during a program in BSL. We will use your feedback on potential layouts to help us tailor the tool to appeal to its users.

This will take approximately 30 minutes. We ask that you give honest and thoughtful answers to our questions. There are no right or wrong answers, so please be respectful of others' opinions. Participation in this research is voluntary and you may end your participation at any time. If you are uncomfortable with a question, you do not need to answer it. Lastly, are all of you willing to be recorded? If not, please let us know, but if so, we will record this focus group, analyze the recording, and then delete it. The recording will be kept in a password protected file that only the four of us have access to. Also, are you willing to let us take notes during this? We will not collect any of your personal data, so there should be no privacy issues. Do you have any questions for us? Great, let's begin.
- Slide 1 - Home page and Assessment:
    - What websites do you all typically use? Facebook? Instagram? Twitter?
    - Have any of you not used the WRST before?
    - Say: we're going to show you a couple graphics and web page designs that we have created to get all of your input on. We are attempting to make our designs as simple to understand as possible, so if you become confused on any part of the screen please let us know! All input is encouraged!
    - If you were presented this page, would you know what you would have to do to select an option?
    - If you are not sure where you fall under the ratings, what would you do?

- ○ Does this layout appeal to you? Would you change anything?
- Slide 2 - Results (spider graph - graph 1)
  - ○ Ok this is the results page. It comes up after you take your test. The graphs here are meant to create a visual representation of your skills. 5 being the outermost and 1 being the innermost.
  - ○ What are your first initial thoughts when seeing this graph? Are you overwhelmed? Do you understand it?
  - ○ Anything you would change?
- Slide 3 - Results (bar graph - graph 2)
  - ○ Here is another representation of your skills. Do you feel this graph is more simple to understand compared to graph 1?
  - ○ Any other opinions? pros/cons?
- Slide 4 - Progress (spider graph - graph 1)
  - ○ This graph represents your growth of skills over multiple assessments. Dark blue being the 1st assessment, light blue is the second, and green is the third.
  - ○ Is this design a little complicated or confusing?
  - ○ Would you feel comfortable with being given this type of graph and understanding it?
  - ○ Any other opinions?
- Slide 5 - progress (bar graph - graph 2)
  - ○ Here is another representation of your skills growth over time. (ad lib a description)
  - ○ Would you prefer this graph or the last one if you wanted to visualize your own skills?
- Slide 6 - progress (line graphs - graph3)
  - ○ Here is another representation of your skills growth over time. (ad lib a description)
  - ○ Is this graph simpler to understand than the previous graphs?
  - ○ Is there anything that you like on this page that was not on the other pages?
  - ○ Do you have any final opinions on anything, or have ideas for cool features you would like to see?
- End-
  - ○ Thanks so much for helping us out, it was great!
  - ○ Do you have any questions for us?

Research Tool 3: User Testing

Protocol and General Process

Hello, we a group of students from Worcester Polytechnic Institute, a private university in America. Our names are John Dyer, Matt Freed, Jonathan Redus and Madison Stahl. We are working with The Brotherhood of St Laurence to help them get a better understanding of the current job market and the skills required for youth to succeed. Along with this, we are digitizing their current work readiness skills tool. We have been working very hard on this tool for the past few weeks and we have a developed a prototype that is ready to be tested by potential users.

We are here today to hold a round of user testing with you. We have selected you for user testing because you could potentially use this tool during a program in BSL. We will use your feedback on this experience to help us evaluate how easy the prototype is to use and to identify areas for improvement. This will take approximately 20 minutes. It will start with you using the tool, with some directions from us. Once you have completed the tasks, we will ask you some general questions about the tool. There are no right or wrong answers, so please give us honest and thoughtful answers.

Is there anything we can do to make this environment more relaxing and stress-free for you? Participation in this research is voluntary and you may end your participation at any time. If you are uncomfortable with a question, you do not need to answer it. Are you OK with us taking notes during the test? Also, are you willing to be recorded? If so, we will record this user test, analyze the recording, and delete it. The recording will be kept in a password protected file that only we have access to. Your privacy is a major concern for us, so we will not gather any information that can identify you, however, our research will be published. Do you have any questions for us?

Tasks:
- Sign up for an account
  - If they get stuck, ask what the issue is: if they don't understand what the form wants, or if they don't know the information it is asking for
- Log in
- Complete the assessment
- Look at personal results
- Compare growth
- Compare to industry
- Industry page

Questions
- At any point throughout the tool did you get stuck or lost?
- Was there anything you would change when using the tool?
- Are there any additional functions you would like to see implemented?

Evaluation Form for User Testing Round 1: Pre-Database Test

General Information

User testing round and participant number: _____

- ❏ With a counsellor?
- ❏ Used the WRST before?

Task 1: Complete the Assessment

Did they struggle to understand what any of the questions or answers meant, and what were they:

_____

_____

- ❏ Use the examples button?
- ❏ Figure out how to move on to the next question?

Did they have any comments, and what were they:

_____

_____

Task 2: Analyze their Results

- ❏ Did they try the different graphs on their own?

    How hard was it for them to understand the bar graph:

_____

_____

    How hard was it for them to understand the radar chart:

_____

_____

Did they prefer one graph over the other, and which one:

_____

_____

Did they have any comments, and what were they:

_____

_____

Task 3: Compare their Results to Past Results

- ❏ Did they try the different graphs on their own?

    How hard was it for them to understand the bar graph:

_____

_____

    How hard was it for them to understand the radar chart:

_____

_____

Did they prefer one graph over the other, and which one:

_____

_____

Did they have any comments, and what were they:

_____

_____

Taks 4: Compare their Results to Industries
- ❏ Did they try the different graphs on their own?
   How hard was it for them to understand the bar graph:

   _____

   _____

   How hard was it for them to understand the radar chart:

   _____

   _____

Did they prefer one graph over the other, and which one:

_____

_____

Did they have any comments, and what were they:

_____

_____

General Questions
Was there any point where they got stuck or lost:

_____

_____

_____

_____

Is there anything they would change about the tool:

_____

_____

_____

_____

Were there any functions they felt were missing:

_____

_____

_____

_____

<p style="text-align:center">Evaluation Form for User Testing Round 2: Post-Database Test</p>

General Information

User testing round and participant number: _____

- ❏ With a counsellor?
- ❏ Used the WRST before?

Task 1: Sign Up for an Account

Are there any fields that they did not understand what was asked for, and what were they:

_____

_____

Are there any fields they could not fill out (once the fields were explained), and what were they:

_____

_____

Did they struggle or take a long time, and with what:

_____

_____

Did they have any comments, and what were they:

_____

_____

Task 2: Log In to their Account

Did they struggle or take a long time, and with what:

_____

_____

Did they have any comments, and what were they:

_____

_____

Task 3: Complete the Assessment

Did they struggle to understand what any of the questions or answers meant, and what were they:

_____

_____

- ❏ Use the examples button:
- ❏ Figure out how to move on to the next question:

Did they have any comments, and what were they:

_____

_____

General Questions

Was there any point where they got stuck or lost:

_____

Is there anything they would change about the tool:

Were there any functions they felt were missing:

Research Tool 4: Profiles Interview

The Basics:

What is your name? Diane Brown

Where do you work? The Brotherhood of St Laurence

What is your position? Research and Service Development Manager, Youth Transitions Department

Describing the Job:

What do you on a day to day basis? Keep up to date with current research and policy development; write reports, policy briefs, project plans etc.; engage with internal and external stakeholders on specific projects and workshopping ideas; present to internal and external stakeholders (including government and policy makers) on projects and achievements for our department; supervise and manage staff.

What is the most important lesson for working in this position? Being flexible and able to respond to changing circumstances or ideas as project evolve; thinking creatively

If you could give your past self one piece of advice, what would it be? Recognise and identify your areas of strength, and become practised at drawing on other colleagues and staff to provide the skills and expertise that you lack – you don't have to know everything or be good at all things, no one is!

What skills do you need for this job? Excellent written and spoken communication skills, ability to conceptualise and analyse complex ideas, highly developed organisational and time management skills, strategic and critical thinking, digital literacy, good interpersonal skills.

What is your favorite part of the job? Engaging with new and exciting ideas to progress a social justice agenda.

What don't you like about your job? Managing competing priorities in a high pressure environment – working in a non-profit means that the scale of ambition for a project is not always matched by appropriate resourcing.

Appendix C: Literature Review Results

Projected Industry Growth Data- Focused on Identified Industries

Based on data from the Australian Government: Department of Jobs and Small Businesses. (n.d.). Labor Market Information Portal. Retrieved from http://lmip.gov.au/default.aspx?LMIP/GainInsights/EmploymentProjections

Level	ANZSIC 06 Code	Industry	Employment level - May 2017 ('000)	Department of Jobs and Small Business Projections		
				Projected employment level - May 2022 ('000)	Projected employment growth - five years to May 2022	
					('000)	(%)
1	A	**Agriculture, Forestry and Fishing**	296.9	294.5	-2.4	-0.8
1	B	**Mining**	231.1	236.8	5.6	2.4
1	C	**Manufacturing**	907.2	869.0	-38.3	-4.2
1	D	**Electricity, Gas, Water and Waste Services**	127.7	118.7	-9.0	-7.0
1	E	**Construction**	1103.1	1223.8	120.7	10.9
2	30	**Building Construction**	301.2	340.2	39.1	13.0
3	300	Building Construction, nfd	152.5	175.5	23.0	15.1
3	301	Residential Building Construction	103.2	117.4	14.3	13.8
3	302	Non-Residential Building Construction	43.8	45.5	1.8	4.0
2	31	**Heavy and Civil Engineering Construction**	75.9	79.4	3.5	4.6
3	310	Heavy and Civil Engineering Construction	75.9	79.4	3.5	4.6
2	32	**Construction Services**	723.0	800.7	77.7	10.7
3	320	Construction Services, nfd	5.2	6.0	0.8	15.7
3	321	Land Development and Site Preparation Services	55.6	61.3	5.7	10.3
3	322	Building Structure Services	94.9	95.6	0.7	0.8
3	323	Building Installation Services	260.6	300.7	40.1	15.4
3	324	Building Completion Services	202.8	222.6	19.8	9.8
3	329	Other Construction Services	103.4	113.9	10.5	10.2
2	E0	**Construction, nfd**	7.3	7.8	0.5	6.7
3	E00	Construction, nfd	7.3	7.8	0.5	6.7
1	F	**Wholesale Trade**	390.3	392.2	1.9	0.5
1	G	**Retail Trade**	1228.3	1273.9	45.6	3.7
1	H	**Accommodation and Food Services**	872.2	969.8	97.6	11.2
2	44	**Accommodation**	114.1	120.7	6.5	5.7
3	440	Accommodation	114.1	120.7	6.5	5.7

2	45	**Food and Beverage Services**	**754.6**	**845.6**	**91.0**	**12.1**
3	450	Food and Beverage Services, nfd	0.5	0.5	0.0	0.0
3	451	Cafes, Restaurants and Takeaway Food Services	610.9	695.1	84.1	13.8
3	452	Pubs, Taverns and Bars	97.6	105.2	7.6	7.8
3	453	Clubs (Hospitality)	48.9	48.2	-0.7	-1.3
2	H0	**Accommodation and Food Services, nfd**	**0.1**	**0.1**	**0.0**	**11.2**
3	H00	Accommodation and Food Services, nfd	0.1	0.1	0.0	11.2
1	I	**Transport, Postal and Warehousing**	**616.2**	**656.5**	**40.3**	**6.5**
1	J	**Information Media and Telecommunications**	**208.3**	**215.2**	**6.9**	**3.3**
1	K	**Financial and Insurance Services**	**435.1**	**459.7**	**24.6**	**5.6**
1	L	**Rental, Hiring and Real Estate Services**	**212.4**	**230.3**	**18.0**	**8.5**
1	M	**Professional, Scientific and Technical Services**	**1014.2**	**1140.6**	**126.4**	**12.5**
2	69	**Professional, Scientific and Technical Services (Except Computer System Design and Related Services)**	**792.2**	**864.4**	**72.2**	**9.1**
3	690	Professional, Scientific and Technical Services (Except Computer System Design and Related Services), nfd	0.4	0.5	0.1	13.9
3	691	Scientific Research Services	42.8	43.4	0.6	1.3
3	692	Architectural, Engineering and Technical Services	276.7	303.3	26.6	9.6
3	693	Legal and Accounting Services	261.4	279.9	18.5	7.1
3	694	Advertising Services	34.7	39.4	4.7	13.6
3	695	Market Research and Statistical Services	39.6	47.2	7.6	19.2
3	696	Management and Related Consulting Services	88.5	95.6	7.2	8.1
3	697	Veterinary Services	27.3	29.1	1.8	6.7
3	699	Other Professional, Scientific and Technical Services	25.4	30.6	5.2	20.3
2	70	**Computer System Design and Related Services**	**220.2**	**274.4**	**54.2**	**24.6**
3	700	Computer System Design and Related Services	220.2	274.4	54.2	24.6
2	M0	**Professional, Scientific and Technical Services, nfd**	**0.1**	**0.1**	**0.0**	**8.1**
3	M00	Professional, Scientific and Technical Services, nfd	0.1	0.1	0.0	8.1
1	N	**Administrative and Support Services**	**413.3**	**448.2**	**34.9**	**8.4**
1	O	**Public Administration and Safety**	**807.1**	**882.1**	**75.0**	**9.3**
1	P	**Education and Training**	**968.5**	**1084.7**	**116.2**	**12.0**
2	80	**Preschool and School Education**	**537.0**	**595.7**	**58.7**	**10.9**
3	800	Preschool and School Education, nfd	0.2	0.2	0.0	4.0
3	801	Preschool Education	55.3	68.4	13.1	23.6
3	802	School Education	483.4	529.0	45.6	9.4
2	81	**Tertiary Education**	**234.8**	**251.6**	**16.7**	**7.1**
3	810	Tertiary Education	234.8	251.6	16.7	7.1

2	82	**Adult, Community and Other Education**	**187.0**	**227.2**	**40.1**	**21.5**
3	820	Adult, Community and Other Education, nfd	0.1	0.1	0.0	16.5
3	821	Adult, Community and Other Education	186.2	226.3	40.1	21.5
3	822	Educational Support Services	0.4	0.5	0.0	6.5
2	P0	**Education and Training, nfd**	**9.1**	**9.7**	**0.6**	**6.7**
3	P00	Education and Training, nfd	9.1	9.7	0.6	6.7
1	Q	**Health Care and Social Assistance**	**1560.4**	**1810.9**	**250.5**	**16.1**
2	84	**Hospitals**	**387.7**	**417.0**	**29.3**	**7.6**
3	840	Hospitals	387.7	417.0	29.3	7.6
2	85	**Medical and Other Health Care Services**	**543.0**	**659.7**	**116.6**	**21.5**
3	850	Medical and Other Health Care Services, nfd	118.9	143.6	24.7	20.8
3	851	Medical Services	158.8	186.0	27.2	17.1
3	852	Pathology and Diagnostic Imaging Services	45.6	49.5	3.9	8.6
3	853	Allied Health Services	186.8	242.0	55.2	29.6
3	859	Other Health Care Services	27.5	33.1	5.7	20.6
2	86	**Residential Care Services**	**242.3**	**280.1**	**37.8**	**15.6**
3	860	Residential Care Services	242.3	280.1	37.8	15.6
2	87	**Social Assistance Services**	**386.0**	**452.8**	**66.8**	**17.3**
3	870	Social Assistance Services, nfd	14.4	15.8	1.4	9.7
3	871	Child Care Services	149.5	169.9	20.4	13.7
3	879	Other Social Assistance Services	221.8	266.8	45.0	20.3
2	Q0	**Health Care and Social Assistance, nfd**	**0.4**	**0.4**	**0.0**	**10.0**
3	Q00	Health Care and Social Assistance, nfd	0.4	0.4	0.0	10.0
1	R	**Arts and Recreation Services**	**215.2**	**236.5**	**21.4**	**9.9**
1	S	**Other Services**	**490.5**	**502.8**	**12.3**	**2.5**

Skill Required by Jobs within Identified Industries

Accommodation and Food Services

	R	W	N	DL	SL	F	I	PS	PO	SA
Actors and Other Entertainers	4	2	1	1	5	3	2	2	3	3
Bar Attendants and Baristas	3	3	2	2	5	3	2	3	4	2
Cafe Workers	2	2	2	2	5	3	4	3	3	3
Camping Ground Managers	3	2	1	1	5	2	2	4	3	2
Chefs	1	1	3	2	5	3	3	3	4	2
Conference and Event Organizers	4	3	2	2	4	3	2	3	5	3
Cooks	3	2	2	2	4	4	3	2	3	3
Delivery Drivers	4	2	3	2	5	2	2	4	3	2
Greenkeepers	2	2	2	2	4	2	4	4	3	3
Hotel and Motel Managers	3	2	3	4	5	3	3	4	3	2
Hotel Service Managers	4	3	2	1	5	4	3	4	4	1
Housekeepers	3	3	1	1	4	1	4	2	3	1
Kitchenhands	2	1	2	1	4	2	3	2	3	1
Retail Managers	2	2	2	2	4	4	4	3	3	2
Sales Assistants	4	3	2	3	5	3	2	5	3	2
Waiters	4	3	2	2	5	4	2	3	3	2
Average	3	2.3	2	1.9	4.6	2.9	2.8	3.2	3.3	2.1
Standard Deviation	.97	.68	.63	.81	.50	.89	.83	.91	.60	.72

Construction

	R	W	N	DL	SL	F	I	PS	PO	SA
Air Conditioning & Refrigeration Mechanics	3	2	3	1	4	2	2	5	4	1
Architectural, Building, & Surveying Technicians	4	2	3	2	5	2	2	4	3	1
Civil Engineering Professionals	5	2	5	4	4	3	2	5	3	2
Construction Managers	4	2	3	2	5	3	2	5	3	1
Electricians	4	2	2	2	3	2	1	5	3	1
Specialty Construction Workers	3	1	3	3	5	2	2	4	3	2
Handypersons	2	1	2	2	4	4	2	4	3	1
Insulation & Home Improvement Installers	3	2	2	2	5	3	2	4	3	1
Land Economists and Valuers	5	3	3	1	5	2	2	5	3	1
Other Construction & Mining Labourers	3	2	2	3	3	2	2	5	3	2
Railway Track Workers	2	2	2	3	3	2	2	4	5	2
Average	3.4	1.9	2.7	2.7	4.2	2.4	1.9	4.5	3.3	1.4
Standard Deviation	1.0	.54	.90	.90	.87	.69	.30	.52	.64	.50

Education and Training

	R	W	N	DL	SL	F	I	PS	PO	SA
Child Care Centre Managers and Carers	4	3	2	2	5	4	3	4	4	4
Driving Instructors	3	3	2	2	5	3	2	4	4	4
Early Childhood Instructors	3	3	2	2	5	4	3	4	3	4
Education Aides	3	3	2	2	5	4	2	4	3	4
General Clerks	4	4	3	2	5	3	2	3	4	4
Librarians	5	4	2	2	4	2	3	3	4	4
Life Scientists	4	3	4	3	4	3	2	4	3	4
Office Managers	5	4	2	2	5	2	3	4	5	4
Outdoor Adventure Guides	3	3	2	2	5	4	4	4	4	4
School Teachers	4	4	3	2	5	2	3	4	4	4
Private Tutors and Teachers	3	3	2	2	5	3	2	3	4	4
Psychologists	2	4	3	2	5	3	2	4	4	4
School Principals	5	4	3	2	5	2	3	4	4	4
Special Education Teachers	4	4	2	2	5	4	2	3	4	4
Sports Coaches, Instructors, and Officials	3	3	2	2	5	4	3	4	4	4
Training and Development Professionals	3	2	2	2	5	4	3	5	3	4
Average	3.6	3.4	2.4	2.1	4.9	3.2	2.6	3.8	3.8	4
Standard Deviation	.89	.62	.62	.25	.34	.83	.62	.54	.54	0.0

Health Care and Social Assistance

	R	W	N	DL	SL	F	I	PS	PO	SA
Aged and Disabled Carers	3	3	3	2	5	3	4	4	5	3
Ambulance Officers & Paramedics	3	3	3	2	5	4	3	5	4	3
Archivists, Curators, & Records Managers	5	4	2	2	4	3	2	4	3	2
Audiologists & Speech Therapists	4	3	2	2	5	2	3	4	3	2
Counsellors	4	2	2	2	5	4	4	4	4	3
Dental Assistants	4	3	3	2	5	3	3	4	3	3
Dental Hygienists, Technicians, and Therapists	3	3	3	2	5	3	3	4	4	3
Enrolled and Mothercraft Nurses	4	3	2	2	4	2	4	4	4	3
Indigenous Health Workers	4	3	2	2	5	4	3	4	3	2
Massage Therapists	3	3	2	2	5	2	3	4	3	2
Registered Nurses	4	3	3	2	5	2	3	4	2	3
Medical Imaging Professional	4	4	3	2	5	2	3	3	3	2
Medical Technicians	4	3	3	2	5	3	3	4	3	2
Midwives	4	3	3	2	5	3	3	4	4	2
Special Care Workers	4	4	3	2	5	3	3	4	4	3
Welfare Support Workers	4	4	2	2	5	3	3	3	3	2
Average	3.8	3.2	2.6	2.0	4.9	2.9	3.1	3.9	3.4	2.5
Standard Deviation	.54	.54	.51	0.0	.34	.72	0.5	.44	.72	.52

Professional, Scientific, and Technical Services

	R	W	N	DL	SL	F	I	PS	PO	SA
Accountant	5	5	5	4	4	2	3	4	4	3
Advertising & Marketing Professionals	4	4	3	4	5	3	2	4	5	2
Agricultural Technicians	5	3	3	2	3	2	1	4	2	2
Geologists, Geophysicists, & Hydrogeologists	5	4	3	4	4	2	2	5	3	2
Veterinary Nurses	3	2	3	4	4	4	2	4	3	3
Research and Development Managers	4	4	5	4	4	2	2	5	3	3
Software & Application Programmers	3	4	4	5	3	4	2	5	4	4
Signwriters	3	3	2	2	4	4	3	4	5	4
Engineering Professionals	5	4	5	4	5	3	3	5	3	3
Science Technicians	5	3	4	3	3	2	2	5	3	3
ICT Support Technicians	4	4	3	5	5	1	1	4	3	3
Graphic & Web Designers	5	3	3	5	5	2	2	3	3	3
Court & Legal Clerks	4	4	2	3	5	3	1	3	4	2
Actuarial, Mathematics, & Statisticians	4	3	5	5	3	3	2	4	3	3
Urban & Regional Planners	5	4	3	3	5	2	2	3	5	2
Average	4.3	3.6	3.5	3.8	4.1	2.6	2	4.1	3.5	2.8
Standard Deviation	.80	.74	1.0	1.0	.83	.91	.65	.74	.92	.68

Appendix D: Focus Group Results

Focus Group 1 Transcript

<p align="center">Focus Group with Youth Transcript</p>

Location: This focus group took place in a conference room in the Kangan Institute Library in Broadmeadows, VIC.

Date: March 28, 2018 at 12:00pm

Roles: Matt Freed- moderator
       John Dyer- demonstrator
       Jonathan Redus- primary note taker
       Madison Stahl- secondary note taker/recorder

Goal: The goal of this focus group was to gather feedback from youth regarding potential designs of our digital work readiness tool.

Setup: The setup of the focus group was simple. There was a long rectangular table surrounded by chairs. John connected his laptop to a large viewing monitor at the front of the room for all participants to easily view our presentation. The four researchers sat in the front of the room closest to the monitor. An initial total of 6 youth (4 male and 2 female) and Julia Baron of BSL were gathered around the table as well. 2 other youth (both female) came in late for an overall total of 8 youth.

Focus Group:
Matt Freed: Hello, we are a group of students from Worcester Polytechnic Institute, a private university in America. Our names are John Dyer, Matt Freed, Jonathan Redus and Madison Stahl.

Matt Freed: "Have you guys used this tool before?"
Youth: No

Julia Baron: "Has anyone used the paper version of the Work Readiness Tool with your youth coach?"
Youth: *One person says yes out of the 8*

Matt Freed: "We are here in Australia working with The Brotherhood of St Laurence to help them figure out what skills youth need in the job market. Also, we will be making the work readiness skills tool into a website. At the end of this, our research will be published. We are here today to hold a focus group with you. You were picked for this because you might use this tool during a program in BSL. We will use your feedback on potential layouts to help us tailor the tool to appeal to its users.

This will take approximately 30 minutes. We ask that you give honest and thoughtful answers to our questions. There are no right or wrong answers, so please be respectful of others' opinions. Participation in this research is voluntary and you may end your participation at any time. If you are uncomfortable with a question, you do not need to answer it. Lastly, are all of you willing to be recorded? If not, please let us know, but if so, we will record this focus group, analyze the recording, and then delete it. The recording will be kept in a password protected file that only the four of us have access to. Also, are you willing to let us take notes during this? We will not collect any of your personal data, so there should be no privacy issues. Do you have any questions for us? Great, let's begin."

Matt Freed: "Has anyone used a strengthsfinder before?"
Youth: No

Matt Freed: "Are all of you willing to be voice recorded?"
Youth: Yes

Matt Freed: "Are you willing to let us take notes?"
Youth: Yes

Matt Freed: "Any questions?"
Youth: No

Matt Freed: "What websites do you typically use?"
Youth: Facebook, Snapchat, Instagram, Google, Twitter, LinkedIn

Matt Freed: "So we tried to make our tool as similar as possible to those websites so you might notice that our buttons may look like twitter buttons just as a fun way of doing it."

Matt Freed: "Like I said before, we're going to show you a couple of graphics and web page designs that we have created to get your input on. We tried to make our designs as easy to understand as possible, so if you become confused at any point please let us know! We won't get offended by anything and your opinions are awesome!"

John Dyer: "So we just click start assessment. Some pre-assessment questions show up. These are the instructions for how to use the tool. You'll be presented with a series of skills and you'll rank on 5 levels and you select the one that is closest to your abilities to use the skill."

Matt Freed: "So question number 1, if you were presented with this page, would you know that you would have to click one of these boxes?"
Youth: Yeah; No, I might just click all of them

Matt Freed: "If you wanted to find out more about what's inside of the box, what would you press?"
Youth: Examples

Matt Freed: "So here is graph 1, it's a spider graph… if you were to see this graph, would you understand what is going on here? If you were given this alone, would you feel confused at all?"
Youth: It might take a few minutes; It is understandable over time

Matt Freed: "Is it overwhelming at any point?"
Youth: "Does it mean anything when the graph is at a 5?"
Matt Freed: "Yeah, so basically what this is, is that 5 is the highest ranking and 1 is the lowest ranking and basically if you were a 1 on writing, the graph would adjust this bar to go down here and then you end up connecting them all."

Matt Freed: "So, it's a little overwhelming when you first look at it but overall do you think you would be able to understand it?"
Youth: *a lot of nods*

Matt Freed: "Great. So this is graph number 2. It represents the same data it's just presented in a different way. Do you feel that this would be a better representation of your skills compared to the last one?"
Youth: Yes; It's a lot simpler; I prefer it to the last one; *a couple of nods*

Matt Freed: "Is there anything else on this page that you would add?"
Youth: No

Matt Freed: "Are there any other opinions or anything that you would like to be added?"
Youth: Color code the graph

Madison Stahl: "Is everything readable and big enough?"
Youth: *Overall consensus of yes based on head nods*

Julia Baron: "For anyone that's not familiar or needs a little background...does it make sense what all those words mean on the left side, or would it be good to have some sort of explanation?"
Youth: It makes sense the way it is

Matt Freed: "So this is a graph after you've taken the test 3 times. Basically the blue shade is your first assessment, the light shade is your second assessment, and the green is your third assessment. Do you feel overwhelmed if you were to be given this style of graph? Do you think it is simple to understand?"
Youth: It's pretty simple; It's understandable

Matt Freed: "Would you change the color at all or do they pop out enough so that you can easily distinguish between them?"
Youth: No, the colors are great

Matt Freed: "Here is another graph representing the same data but with bar graphs. Do you still prefer the bar graphs to represent multiple skills and multiple tests?"
Youth: Yes; The color coded is nice

Madison Stahl: "Does it seem too cluttered?"
Youth: I wouldn't say that it's too cluttered. The colors are really similar because right now there is a dark blue, a light blue, and a green. So maybe 3 more distinct colors could work better.

Matt Freed: "Do you all feel the same way?"
Youth: Yes; *head nods*

Matt Freed: "This is our third and last representation of your progress over time. These are simple line graphs that show an increase or decrease in your skills. Do you like this better than the past two?"
Youth: Yes

Matt Freed: "What about everyone else?"
Youth: I like the bar graph *few nods*; I like the line graph *few nods*

Matt Freed: "Do you feel that the shading underneath the line is distracting at all?"
Youth: No I kinda like it; I like it; It's good

Matt Freed: "That's all we have for you today. Is there anything anyone wants to add?"

Julia Baron: "So does it make sense what the tool is doing? So for those of you who haven't done it, basically this is a new tool and you come in and basically rank yourself in 10 skills. This is a new tool so what it does is basically you come in and rank yourself on these 10 skills. The reason we are getting it onto the computer is that we are on the computer much more often and it looks nicer than what we have on paper at the moment. We want participants to be able to do this once when they start the program and that at another point throughout the program so that you can track your progress. So what these guys were showing you, like those last 3 graphs, that was comparing someone who has done the assessment themselves 3 times and has looked at their improvement in each skill. Does that make sense? So do you think in general that kind of tool is useful for you? And do you think generally having it on a computer would be better than paper?"
Youth: Yes (consensus)

John Dyer: "Any other comments or things you think we can improve?"
Youth: No

Matt Freed: "Well, that's all we have for you guys. We really appreciate you giving your feedback and it was all really helpful! Thank you so much!

Focus Group 2 Transcript

Focus Group with Youth Advisors Transcript

Location: This focus group took place in a conference room in the Kangan Institute Library in Broadmeadows, VIC.

Date: March 29, 2018 at 4:15pm

Roles: Matt Freed- moderator
John Dyer- demonstrator
Jonathan Redus- primary note taker
Madison Stahl- secondary note taker

Goal: The goal of this focus group was to gather feedback from the youth advisors regarding potential designs of our digital work readiness tool.

Setup: The setup of the focus group was simple. There was a long rectangular table surrounded by chairs. John connected his laptop to a large viewing monitor at the front of the room for all participants to easily view our presentation. The four researchers sat in the front of the room closest to the monitor. A total of 8 youth advisors (0 male and 8 female) and Julia Baron of BSL were gathered around the table as well.

Focus Group:
Matt Freed: Hello, we are a group of students from Worcester Polytechnic Institute, a private university in America. Our names are John Dyer, Matt Freed, Jonathan Redus and Madison Stahl.

Matt Freed: "Have you guys used this tool before?"
Youth: Yes, they have all been exposed to the paper tool

Matt Freed: "We are here in Australia working with The Brotherhood of St Laurence to help them figure out what skills youth need in the job market. Also, we will be making the work readiness skills tool into a website. At the end of this, our research will be published. We are here today to hold a focus group with you. You were picked for this because you might use this tool during a program in BSL. We will use your feedback on potential layouts to help us tailor the tool to appeal to its users.

This will take approximately 30 minutes. We ask that you give honest and thoughtful answers to our questions. There are no right or wrong answers, so please be respectful of others'

opinions. Participation in this research is voluntary and you may end your participation at any time. If you are uncomfortable with a question, you do not need to answer it. Lastly, are all of you willing to be recorded? If not, please let us know, but if so, we will record this focus group, analyze the recording, and then delete it. The recording will be kept in a password protected file that only the four of us have access to. Also, are you willing to let us take notes during this? We will not collect any of your personal data, so there should be no privacy issues. Do you have any questions for us? Great, let's begin."

Matt Freed: "Are all of you willing to be voice recorded?"
Youth: One youth responded no, so we did not record this focus group

Matt Freed: "Are you willing to let us take notes?"
Youth: Yes

Matt Freed: "Any questions?"
Youth: No

Matt Freed: "Like I said before, we're going to show you a couple of graphics and web page designs that we have created to get your input on. We tried to make our designs as easy to understand as possible, so if you become confused at any point please let us know! We won't get offended by anything and your opinions are awesome!"

Matt Freed: "So question number 1, if you were presented with this page (basic assessment page), would you know that you would have to click one of these boxes?"
Youth: Yes it's very self-explanatory

Matt Freed: "If you were not sure where you fall under these rankings, what would you do?"
Youth: Press the examples button; I like the drop down feature rather than the wall of text

Matt Freed: "So here is graph 1 (results spider graph), what are your initial thoughts when you see this graph?"
Youth: It's difficult to understand; It's not clear; It's fine for me

Matt Freed: "Here is graph 2 (results bar graph). Do you feel that this graph is more simple to understand than the previous graph?"
Youth: Much better; Simpler; "It's clear to see the level I am good at"; "The other one is more complicated"; Better; "Engineers would understand the spider, everyone would understand this"

Matt Freed: "Any other opinions? Pros/cons?"
Youth: "This is more familiar as it is used more in math"

Matt Freed: "So this is a graph after you've taken the test 3 times to show your progress (progress spider graph). Basically the blue shade is your first assessment, the light shade is your second assessment, and the green is your third assessment. Is this complicated or confusing?"
Youth: It is too complicated; It is better for comparing rather than being on its own because you can see it extend; Colors are good

Matt Freed: "Here is another representation of your skills growth over time (progress bar graph). Would you prefer this graph or the last one if you wanted to visualize your own skills?"
Youth: Yes, I think it is simpler; No, the other one shows growth better; Both are OK; The colors may be too close; I like it

Matt Freed: "This is our third and last representation of your progress over time (progress line graph). Is this graph simpler than the other two?"
Youth: More simple but the other ones show all the skills at the same time; A little bit complicated; Prefer the 2nd and 3rd because it shows growth over time better

Matt Freed: "Well, that's all we have for you guys. We really appreciate you giving your feedback and it was all really helpful! Thank you so much!

Appendix E: User Testing Results

Completed Evaluation Forms: Round 1

<u>User 1</u>

General Information

User testing round and participant number: 1.1

With a counsellor? No

Used the WRST before? No

Task 1: Complete the Assessment

Did they struggle to understand what any of the questions or answers meant, and what were they:

- Had to ask about the number of times taking it (pre assessment)
- Note: always used the circle to select a response

Use the examples button: Didn't use examples until Matt explained it

        Would open examples on ones they were considering (didn't look at all of them)

Figure out how to move on to the next question: yes

Did they have any comments, and what were they: *none*

Task 2: Analyze their Results

Did they try the different graphs on their own:

        How hard was it for them to understand the bar graph:

- Yes to It's visually pleasing

        How hard was it for them to understand the radar chart:

- "This is really hard"

Did they prefer one graph over the other, and which one:

- Bar graph

Did they have any comments, and what were they: *none*

Task 3: Compare their Results to Past Results

Did they try the different graphs on their own:

        How hard was it for them to understand the bar graph:

- Switched to this one

        How hard was it for them to understand the radar chart:

- Switched off of this one

Did they prefer one graph over the other, and which one:

- Did not say, but presumably preferred the bar chart because the user switched to it

Did they have any comments, and what were they:

- Colors are a bit too dark

Taks 4: Compare their Results to Industries

Did they try the different graphs on their own:

How hard was it for them to understand the bar graph:
- Switched to this one

How hard was it for them to understand the radar chart:
- Switched off of this one

Did they prefer one graph over the other, and which one:
- Did not say, but presumably prefered the bar chart because the user switched to it

Did they have any comments, and what were they: *none*

General Questions

Was there any point where they got stuck or lost:
- No

Is there anything they would change about the tool:
- "It's really good so far"
- The start page is too simple- add text, red button

Were there any functions they felt were missing:
- Options on the side instead of needing to scroll to the top (Industry page)

User 2

General Information

User testing round and participant number: 1.2

With a counsellor? No

Used the WRST before? May have, not entirely sure

Task 1: Complete the Assessment

Did they struggle to understand what any of the questions or answers meant, and what were they:
- Yes a bit
- "What does digital literacy mean?"
  - John explained that it's your technology skills (computer, phone, etc.)
- "What box is average?"
  - John then explained that you can hit examples for more information about the various levels

Use the examples button: Not at first, around question 4 or 5 started to

Figure out how to move on to the next question: Yes, no issues there

Did they have any comments, and what were they:
- "Not much of a reader, I've only read one book."
- *Started to go through faster towards the end and not using examples...maybe not reading through the skills...did mention that he is not a very good reader.*

Task 2: Analyze their Results

Did they try the different graphs on their own: No, had to be prompted

How hard was it for them to understand the bar graph:
- He understood it

- "There are no 5's."
  - John explained that it was what he picked
  - "Oh, that makes sense."

How hard was it for them to understand the radar chart:
- "It reminds me of a game."
- "I can tell what I'm good at."

Did they prefer one graph over the other, and which one:
- Radar chart
- "I understand the radar chart, but other people would think bar graph would be simpler."

Did they have any comments, and what were they:
- No

Task 3: Compare their Results to Past Results

Did they try the different graphs on their own: Yes

How hard was it for them to understand the bar graph:
- It's easy
- "Other people would prefer this."

How hard was it for them to understand the radar chart:
- Really liked it
- "It looks advanced so I like it."

Did they prefer one graph over the other, and which one:
- Radar chart

Did they have any comments, and what were they:
- "Very valuable to have to see growth."

Taks 4: Compare their Results to Industries

Did they try the different graphs on their own: No, prompted by John

How hard was it for them to understand the bar graph:
- "For me it's easy, it reminds me of primary school."

How hard was it for them to understand the radar chart:
- Not difficult
- Really liked it
- Easy to understand

Did they prefer one graph over the other, and which one:
- Radar chart

Did they have any comments, and what were they:
- Has taken IT classes before
- "You guys have a really good set-up with this website"

General Questions

Was there any point where they got stuck or lost:
- Straightforward

- "I don't know why I didn't hit examples at first, but from there it was easy."

Is there anything they would change about the tool:

- No

Were there any functions they felt were missing:

- No

User 3

General Information

User testing round and participant number: 1.3

With a counsellor? No

Used the WRST before? No

Task 1: Complete the Assessment

Did they struggle to understand what any of the questions or answers meant, and what were they:

- No

Use the examples button: Not at first, question 3 she started to

Figure out how to move on to the next question: Yes

Did they have any comments, and what were they:

- No
- *stayed close to the higher levels, didn't look at lower levels*

Task 2: Analyze their Results

Did they try the different graphs on their own: Yes

    How hard was it for them to understand the bar graph:

- Not hard
- "It just showed what I selected as I went through."

    How hard was it for them to understand the radar chart:

- A little confusing at first

Did they prefer one graph over the other, and which one:

- "I like the bar chart more."
- "The radar chart is separated into 2 segments, it would be better if it were one big graph."

Did they have any comments, and what were they:

- No

Task 3: Compare their Results to Past Results

Did they try the different graphs on their own: No, asked "What do I do now?"

    How hard was it for them to understand the bar graph:

- Liked it best
- Was not hard at all

    How hard was it for them to understand the radar chart:

- A little confusing at first

Did they prefer one graph over the other, and which one:

- Bar chart
- "It's easy for me to see."

Did they have any comments, and what were they:

- No

Taks 4: Compare their Results to Industries

Did they try the different graphs on their own: No, John showed her

  How hard was it for them to understand the bar graph:
  - Totally understood

  How hard was it for them to understand the radar chart:
  - Understood

Did they prefer one graph over the other, and which one:

- Bar graph
- "Radar chart is more fun to look at."

Did they have any comments, and what were they:

- Played around with different industries with different graph styles
- "This is cool."

General Questions

Was there any point where they got stuck or lost:

- "Not really. A few times I was a bit confused about what the question meant, but the examples made it easy."

Is there anything they would change about the tool:

- No

Were there any functions they felt were missing:

- No

Completed Evaluation Forms: Round 2

User 1

We had a slight issue at first with the assessment. One of the functions we used on the front end of the tool was not compatible with the computer's version of Google Chrome, so the assessment questions and levels were not displayed.

General Information

User testing round and participant number: 2.1

With a counsellor? No

Used the WRST before? Yes

Task 1: Sign Up for an Account

Are there any fields that they did not understand what was asked for, and what were they:

- No

Are there any fields they could not fill out (once the fields were explained), and what were they:

- No

Did they struggle or take a long time, and with what:

- The date field drop down menu

Did they have any comments, and what were they:

- No

Task 2: Log In to their Account

Did they struggle or take a long time, and with what:

- No

Did they have any comments, and what were they:

- No

Task 3: Complete the Assessment

Did they struggle to understand what any of the questions or answers meant, and what were they:

- BUG: The answers didn't load for any of the questions
- Once the assessment began correctly, no

Use the examples button: Yes, but only occasionally

Figure out how to move on to the next question: with difficulty:

- "Do I have to click something?" … "Oh, I have to hit continue"

Did they have any comments, and what were they:

- Can you make this into an app?

General Questions

Was there any point where they got stuck or lost:

- No

Is there anything they would change about the tool:

- No, like the colors

Were there any functions they felt were missing:

- No

User 2

We had a slight issue at first with the assessment. One of the functions we used on the front end of the tool was not compatible with the computer's version of Google Chrome, so the assessment questions and levels were not displayed.

General Information

User testing round and participant number: 2.2

With a counsellor? No

Used the WRST before? Yes

Task 1: Sign Up for an Account

Are there any fields that they did not understand what was asked for, and what were they:

- No

Are there any fields they could not fill out (once the fields were explained), and what were they:

- No

Did they struggle or take a long time, and with what:

- No

Did they have any comments, and what were they:

- It was alright

Task 2: Log In to their Account

Did they struggle or take a long time, and with what:

- No

Did they have any comments, and what were they:

- The user had a minor issue logging in: forgot a character in his password
  - "Some sort of error message when I forgot a character in my password would be nice."

Task 3: Complete the Assessment

Did they struggle to understand what any of the questions or answers meant, and what were they:

- Asked question at first *John*

Use the examples button: Yes

Figure out how to move on to the next question: Yes

Did they have any comments, and what were they:

- *Selected level 3 for a lot of the skills without looking at examples*
- Was prompted to change chart for results

General Questions

Was there any point where they got stuck or lost:

- *Thought about it for a bit*
- "It's not confusing."

- "Everything is good."

Is there anything they would change about the tool:

- "Not really, it was good."

Were there any functions they felt were missing:

- No
- *Didn't fully understand at first that the website was the paper tool.. Once we explained, they understood.
  - "Oh, that's cool. It's so much easier to have as a website."

Appendix F: User Manual for the Digital Work Readiness Skills Tool

WRST User Manual

Contents

User:

Admin:

Information Technology/Server:

USER

This is the first page in the assessment. It provides basic instructions, and has a button to begin the assessment

Instructions

You will be presented with a sequence of skills. For each skill there are five options. Select the option that is closest to your ability to use the skill. You can click the Examples buttons to get more information on that skill.

Begin

After pressing the begin button, the user is taken to a page to fill out basic information, and then begins the skills assessment

At the bottom of the page, there is a randomly selected motivational quote

"Don't be dismayed by good-byes. A farewell is necessary before you can meet again. And meeting again, after moments or lifetimes, is certain for those who are friends" - Richard Bach

The assessment progresses through each skill, one at a time, and asks users how they would rate themselves on that particular skill

There are five levels for each skill, each represented with a different color. To select a level, the user can press the circle above the box or click on the box itself

📖 Reading

How would you rate your ability to use reading skills?

| I have not had the opportunity to develop reading skills | I can use reading skills with assistance | I am developing my reading skills | I can use reading skills independently | I seek opportunites to use reading skills |

Examples

To gain insight into each skill level, the user can press on the examples button to get more examples

← Back   Continue →

Once the user selects an option, the box becomes highlighted, the circle above it becomes filled in, and a button to continue appears

There is always the option to go back, in case the user wants to change an answer. There is also a progress bar, so they can see how far they are in the assessment

Skill Results

Once the user completes the assessment, they are taken to this page, to see their results

The default is for the results to display on a bar graph, but can also be displayed on a radar chart, using the dropdown menu
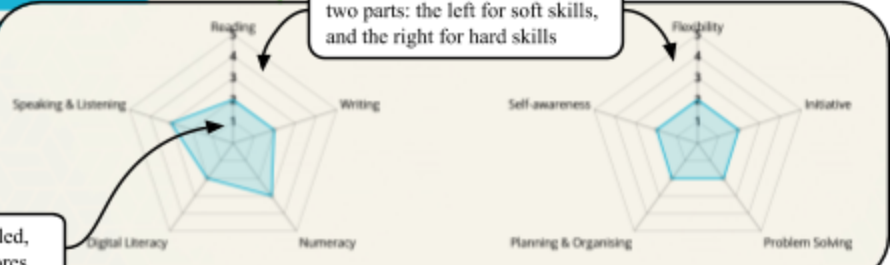
Select a Completed Skill Tool

Assessment 1 - Apr 20, 2018

Select Chart Type

Bar Chart

① I have not had the opportunity to develop this skill
② I can use this skill with assistance
③ I am developing this skill
④ I can use this skill independently
⑤ I seek opportunities to use this skill

A key is provided, to correlate the skill level with the color used in the graph and assessment

Reading
Writing
Numeracy
Digital Literacy
Speaking & Listening
Flexibility
Initiative
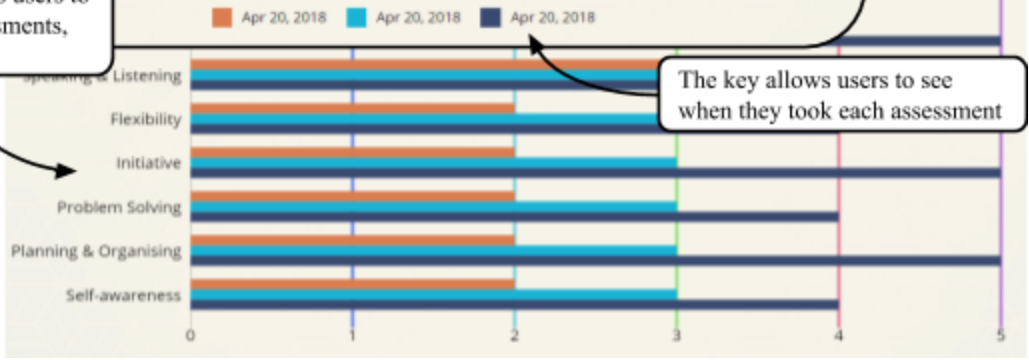Problem Solving
Planning & Organising
Self-awareness

The radar chart is broken into two parts: the left for soft skills, and the right for hard skills
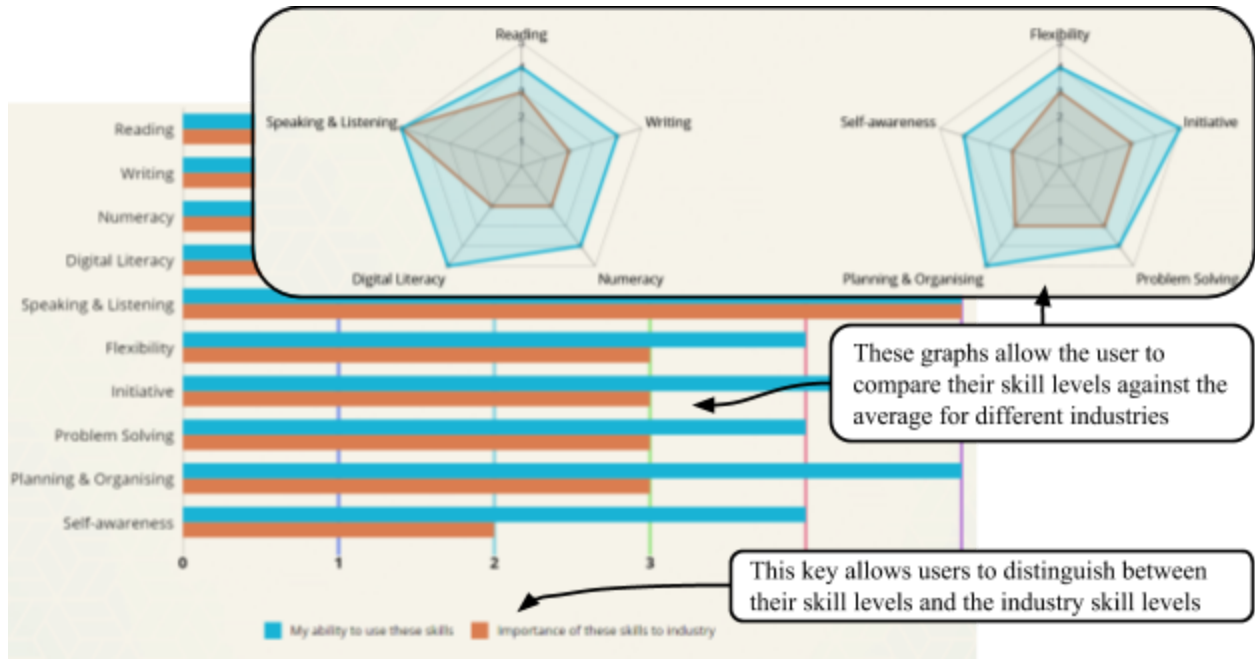
On both charts, the lines are labeled, to help users understand their scores

These graphs allows users to compare past assessments, to see their growth

The key allows users to see when they took each assessment

Apr 20, 2018   Apr 20, 2018   Apr 20, 2018

Speaking & Listening
Flexibility
Initiative
Problem Solving
Planning & Organising
Self-awareness

45

These graphs allow the user to compare their skill levels against the average for different industries

This key allows users to distinguish between their skill levels and the industry skill levels

Skills Tool   Records ▾   Industries ▾   About

🍴 Accommodation and Food Services
🏋 Construction
🎓 Education and Training
🏥 Health Care and Social Assistance
🖥 Professional, Scientific and Technical Services

This page can be accessed by pressing the industries tab, then selecting an industry

Accommodation and Food Services

This page shows details about industries

...stry provides many entry level and part time jobs. Candidates should enjoy working with customers, since many of these jobs deal directly with them. Provided below are a few of the careers that belong to this industry.

For a complete list of jobs under this industry and a further exploration of industries please select here

To get more details from a different site, the user can press this button

Growing jobs within the industry are listed with a short description and some images

Career Examples

Actors and Other Entertainers

These workers entertain people through the performing arts, such as dancing and acting.

ADMIN

- Administrators have the ability to create new basic users, create new admins, delete basic users (but not admins) and download the WRST data
- To delete an admin account, contact the department that contains the credentials for the server. Admins can only be deleted within the Amazon Web Service console
- To use the tool, please use a supported browser: Google Chrome or Microsoft Edge
    - Internet Explorer does not support this tool

I. Creating User Accounts

1. Input the users email address (ex: myemail@email.com) into the <mark>green box</mark> labeled "<u>Create User</u>"
2. Press the "Create Basic User" Button
3. A temporary password has now been sent to the new users email address (the password may take a few minutes to arrive)
4. Have the new user login into the WRST website using their email and temporary password. Press the "User Login" button
5. The new user will now be directed to a page requesting additional information
6. Have the user fill out this page as instructed on the screen
7. Once completely filled out, have the user select the "Create Account" button located on the bottom of the form
8. The user account has now been successfully created

II. Creating Administrator Accounts

1. Input the Administrator email address (ex: myemail@email.com) into the <mark>yellow box</mark> labeled "<u>Create Admin</u>"
2. Press the "Create New Admin" Button
3. A temporary password has now been sent to the new Admins email address (the password may take a few minutes to arrive)
4. Have the new admin login into the WRST website using their email and temporary password. Press the "Admin Login" button.
5. The new admin will now be directed to a page requesting additional information
6. Have the admin fill out this page as instructed on the screen
7. Once completely filled out, have the admin select the "Create Account" button located on the bottom of the form
8. The admin account has now been successfully created

III. Deleting Basic Users

1. Input the basic user email address (ex: myemail@email.com) into the Red box labeled "Delete User"
2. Press the "Delete User" Button
3. The basic user with that corresponding email has now been deleted from the WRST tool and database. All information related to the user is deleted

IV. Downloading Data

1. Locate the blue box titled "Download Data"
2. Press the button labeled "Download"
3. The data will now automatically download to you computer in .csv format
4. This downloaded file will most likely be located in the "downloads" section on your computer
5. Open the file in excel to see the data

I.T

I. Accessing User Pools

1. Log in to the AWS server (https://aws.amazon.com/) using the correct credentials
2. In the AWS search bar, type in "Cognito" and press search
3. Press the "Manage User Pools" button
4. There should be 2 user pools, one that holds the WRST Users and one that holds the WRST Admins

II. Creating Users/Admins

1. If you wish to create a new basic user, press the WRST User pool. If you wish to create a new Admin, press the WRST Admin pool
2. When inside the pool, on the left side of the screen locate the "Users and Groups" page
3. On the screen, locate the "Create user" button and select it
4. Fill in the requested information and select "Create user"
5. The information for user creation has been sent to that users email

III. Deleting Users/Admins

1. If you wish to delete a basic user, press the WRST User pool. If you wish to delete an Admin, press the WRST Admin pool
2. When inside the pool, on the left side of the screen locate the "Users and Groups" page
3. On the screen, locate the user you wish to delete and select their profile
4. On their profile, locate the "Disable user" button and select it
5. Select "Delete user" Button

6. The user has now been deleted

IV. Server Information and More

Please reference the ReadMe in the GIT repository

Appendix G: Developer Manual

WRST Developer Manual

Contents

This document provides technical information on the Digital Work Readiness Skills Tool used by the Transition to Work Community of Practice and is intended for developers who will be maintaining the tool. The digital tool is a Node.js web app intended to be deployed on [AWS EC2](#) server instances. We used [AWS Elastic Beanstalk](#) to deploy and manage the app. The app also uses [DynamoDB](#) for data storage, [S3](#) to store the website files, [Cognito](#) for user authentication, and [Route 53](#) to manage the domain name. We developed this app while working with the Brotherhood of St Laurence as part of our Interdisciplinary Qualifying Project at Worcester Polytechnic Institute. For questions or issues regarding the code contact John Dyer (jedyer@wpi.edu) or Matt Freed (mwfreed@wpi.edu).

1. Overview of app contents

server.js - The Node.js server, created using [Express](#).

package.json - Configuration file for the Node.js application. It includes useful scripts and specifies required dependencies.

public - Directory containing all the client-side website files.

scripts - Directory containing scripts that may be useful in setting up the app. See the Overview of Scripts section for detailed explanations.

2. Running the app locally

Prerequisites

1. Install [Node.js](#)
2. [Clone](#) the GitHub repository.
3. Navigate to the `BSL-WRST` directory on the command line and run `npm install` to install required dependencies.

The app can be run locally for testing using either a local version of the DynamoDB database, or the actual DynamoDB database. If you want to use a local version of the database, complete steps 4 and 5. While it requires additional steps to use a local version, we recommend it because it eliminates the possibility of messing up any important user data that might be stored in the actual database.

1. Download the local version of [DynamoDB](#).

2. Move *DynamoDBLocal.jar* and all the other downloaded files to a directory named *dynamodb_local_latest* within *BSL-WRST*. This file structure is required for some of the scripts to work properly.

Running locally with the actual DynamoDB database

1. Navigate to the *BSL-WRST* directory on the command line and run `npm start` to start the server on port 3000. You can then view the web app in the browser at `http://localhost:3000`
2. Press `Ctrl C` to stop the server.

Running locally with local version of the DynamoDB database

1. Navigate to the *BSL-WRST* directory on the command line and run `npm run startLocalDB` to start the local DynamoDB database on port 8000. Leave that running and open a new terminal in the *BSL-WRST* directory.
2. Run `npm run initTables` to populate the database with default data required for the app to function.
3. Run `npm start localdb` to start the server on port 3000, and indicate the local database should be used. You can then view the web app in the browser at `http://localhost:3000`
4. Press `Ctrl C` to stop the server, and also the database.

3. Deploying to AWS

We used AWS Elastic Beanstalk to deploy and manage versions of the app. We mainly followed the steps found in [this tutorial](). Here is a basic overview of the steps to deploy a new version of the app:

1. Navigate to the *BSL-WRST* directory on the command line and run `npm run build`. This creates a zip file named *myapp.zip* in the *build* directory.
2. Sign in to the [AWS management console]().
3. In the services dropdown menu, select *Elastic Beanstalk*.
4. Select the application *(COPWorkReadinessTool)* and the environment *(Copworkreadinesstool-env-1)*.
5. Select *Upload and Deploy* and follow their instructions. The file you want to upload is the *myapp.zip* file created in step 1.

4. Overview of DynamoDB

We used AWS DynamoDB to store app data. There are currently five tables in DynamoDB:

Users

This table stores user data.

Attributes:

- **userID** (Primary partition key, String) - The unique ID of the user generated by Cognito
- **email** (String) - The user's email address
- **bithdate** (String) - The user's birthdate in the format YYYY-MM-DD
- **familyName** (String) - the user's family name
- **givenName** (String) - the user's given name
- **organisation** (String) - the organisation the user's program is with
- **signUpTime** (Number) - timestamp of when the user signed up (milliseconds elapsed since the UNIX epoch)
- **assessments** (Map) - Map whose keys are assessmentIDs of the assessments the user has taken

Assessments

This table stores assessment data.

Attributes:

- **assessmentID** (Primary partition key, String) - The unique ID of the assessment generated by the uuid node module
- **assessmentNum** (Number) - Whether this is the user's first, second, or third time taking the assessment
- **user** (String) - The userID of the user who took this assessment
- **startTime** (Number) - timestamp of when the user began the assessment (milliseconds elapsed since the UNIX epoch)
- **endTime** (Number) - timestamp of when the user finished the assessment (milliseconds elapsed since the UNIX epoch)
- **preAssessment** (Map) - participant's responses to pre-assessment questions

- ○ **preAssessment.coachName** (String) - The participant's Youth Development Coach assisting them with the assessment
  - ○ **preAssessment.TtWPhase** (String) - What phase of Transition to Work the participant is in, should be a number between 1 and 4
  - ○ **preAssessment.career** (String) - The career the participant is considering pursuing
  - ○ **preAssessment.activitiesToDate** (Map) - Map whose keys are activities the particpant may have done during their program, and whose values are booleans indicating whether the participant has done them or not
  - ○ **preAssessment.additionalNotes** (String) - Any additional notes about the participant that are relevant to the assessment
- **scores** (Map) - Map whose keys are the 10 skillIDs and whose values are the participant's score for that skill (number from 1 to 5)

Skills

This table contains information on the 10 skills for the assessment, including examples for each level.

Attributes:

- **skillID** (Primary partition key, String) - The unique ID of the skill
- **order** (Number) - The order the skill should appear in the assessment (starting from 0)
- **name** (String) - The name of the skill that should be displayed in the assessment (lower case)
- **icon** (String) - The name of the [Font Awesome icon](#) that should be used in the assessment for that skill
- **level1Examples** (Array) - Array of examples (String) of what the participant should be able to do at level 1 of the skill, displayed when the user selects the Examples button
- **level2Examples** (Array) - Array of examples (String) of what the participant should be able to do at level 2 of the skill, displayed when the user selects the Examples button
- **level3Examples** (Array) - Array of examples (String) of what the participant should be able to do at level 3 of the skill, displayed when the user selects the Examples button

- **level4Examples** (Array) - Array of examples (String) of what the participant should be able to do at level 4 of the skill, displayed when the user selects the Examples button
- **level5Examples** (Array) - Array of examples (String) of what the participant should be able to do at level 5 of the skill, displayed when the user selects the Examples button

IndustryScores

This table contains data on how important each of the 10 skills are to each of the 5 industries.

Attributes:

- **industryID** (Primary partition key, String) - The unique ID of the industry
- **scores** (Map) - Map whose keys are the 10 skillIDs, and whose values are the importance of the skill for the industry (number from 1 to 5)

Constants

This table contains constants for the app. Currently the only constant is `assessmentLimit` with a value of 3. This could probably be hard coded into the app, so this table might not be necessary.

Attributes:

- **key** (Primary partition key, String) - The constant name
- **value** - The value of the constant

5. Overview of Cognito

We used AWS Cognito for user authentication. There are currently two user pools, *WRST Admin* and *WRST Users.* The *WRST Admin* user pool is for Youth Development Coaches, and anyone else who should be able to access participant/program data. The *WRST Users* user pool is for youth in the programs who will use the tool. In the future it might make sense to create different pools for each organisation, and for each role (Coaches vs. other types of Administrators), in order to restrict what data and privileges each user has access to.

Sign up Process

To sign up in either user pool, someone must invite the user to join. This process is explained in greater detail for each of the user pools.

WRST Admin

The first Admin user must be created from the AWS Cognito console:

1. Sign in to the [AWS management console](#).
2. In the services dropdown menu, select *Cognito*.
3. Select *Manage your User Pools*, and then *WRST Admin*.
4. Select *Users and groups* in the menu underneath *General settings*.
5. Select *Create user*.
6. Fill out the form. For *Username*, enter an email address. Make sure the *Send an invitation to this new user?* and *Email* boxes are checked. Choose a *Temporary password* for the new user. *Phone number* is not required. Enter the same email address as before under *Email*, and make sure *Mark email as verified?* is checked.
7. An email with the temporary password you chose will be sent to the email you entered. That user can login to the tool using that email and temporary password. They will be promted to enter their name, organisation, and a new password to complete sign up.

Subsequent Admins can be created using the same process. In addition, current Admins can invite other Admins to sign up from the admin page of the tool. They just need to enter the email address for the person they want to invite. That person will receive an email with a random temporary password generated by Amazon. They can login and sign up in the same way as before.

WRST Users

Users can be invited to join from the AWS Cognito console, using the same steps as for Admins, except *WRST Users* should be selected instead of *WRST Admins*. In addition, current admins can invite users to sign up from the admin page of the tool. This process is identical to inviting other admins to sign up.

User Data Collected

When Admins log in for the first time, they are prompted to enter their Given Name, Family Name, and Organisation. For regular users, Birthdate is also a required field. When a regular user selects *Sign up* a new entry with this data is added to the Users table in DynamoDB. No Admin data is stored in DynamoDB.

If a user leaves the program and wants their data to be deleted, an admin can delete the user from the admin page of the tool. This will delete the Cognito user in the *WRST Users* user pool, and go through the database and delete the user's data in the Users and Assessments tables. The user can be deleted from the AWS Cognito console as well, but their data will remain in DynamoDB unless someone manually deletes it from the DynamoDB console.

6. Overview of Scripts

There are several scripts included in `package.json` that help set up the application for testing, or deploying new versions.

startLocalDB

Usage:

```
npm run startLocalDB
```

Description:

Starts the local version of DynamoDB on port 8000. See [Running the app locally](#) for more details.

initTables

Usage:

```
npm run initTables
```

Description:

Deletes all database tables, rebuilds them, and populates them with the default required data when running a local version of DynamoDB.

putSampleData

Usage:

```
npm run putSampleData
```

Description:

Creates a user with userID of *user123*, and assessment for that user, and adds them to the database when running a local version of DynamoDB.

putUser

Usage:

```
npm run putUser [userID]
```

Description:

Creates a user with the specified userID, and adds them to the database when running a local version of DynamoDB.

putAssessmentForUser

Usage:

```
npm run putAssessmentForUser [userID]
```

Description:

Creates an assessment for the user with the specified userID, and adds it to the database when running a local version of DynamoDB.

build

Usage:

```
npm run build [userID]
```

Description:

Creates a file `myapp.zip` within the `build` directory. See the section Deploying to AWS for more details.

Appendix H: Sponsor Description

There are currently 43 organizations in Australia which work on transitioning youth to work, according to the Australian government. In Melbourne, there are six other organizations working on the issue: Inner Melbourne VET Cluster Inc, SYC Ltd, The Salvation Army (Victoria) Property Trust, Job Futures Ltd, Mission Australia, and Wesley Mission Victoria.

Of the six other organizations working in Melbourne, only the Salvation Army and Mission Australia are mentioned as partners with the Brotherhood of St Laurence (BSL). Given the nature of the work- public and non-profit, working for the good of the people, it is probable that the other organizations are not competing with BSL, and are merely independent. Other partners of BSL include AMP and ANZ, which are large financial institutions.

BSL is a public non-profit organization, funded by donations from the general public and by the Australian government. They strive to eliminate poverty in Australia by conducting research and implementing services, practices, and policies that benefit disadvantaged citizens. The organization focuses on four main age groups: children and families, youths, adults, and the elderly (BSL Annual Report, 2017). They focus their efforts on those who are the most disadvantaged in society such as refugees, the disabled, and lower income earners.

Children and families receive childcare, playgroups and parent support. BSL also provides research and development for government policy options related to education and family support. In past years, BSL has provided research on family chronic stress, child development, and external resources available for parents.

Youth receive assistance when looking to find their place in the workforce. One of their main services for this group is the Transition to Work program. The goal of this program is to help young people assess and pursue their employment goals. Disadvantaged youth aged 15-21 have the opportunity to receive job training, learn about career development, and create connections with community organizations. BSL also has a program called Reconnect that is geared towards early school leavers and long-term unemployed people. This program helps these people seek vocational training in hopes that they will continue to acquire skills to help them advance in their respective workforce. BSL launched a national campaign My Chance, Our Future in 2014 to increase awareness of the youth unemployment crisis in Australia. A key part of the campaign is the Youth Unemployment Monitor, an electronic newsletter that provides information and analysis of policies related to youth employment. It also contains stories of young people struggling with unemployment to provide readers with a human connection to the crisis (Brotherhood of St Laurence, 2018).

Adults receive training and assistance with transitioning into working in Australia. Whether the adult is working in Australia for the first time or has lost their job and needs assistance to get back on their feet, BSL is there to provide support with a wide variety of training and work programs for adults of all needs. For example, the Work and Learning Centers pairs job seekers with a professional counselor to explore job opportunities and to understand

and address personal barriers that prevent the job seeker from finding a job such as a lack of work experience. The Work and Learning Center also provides resume and interview workshops for job seekers, an outlet for advocating to potential employers, and references to local services of benefit.

The elderly receive services and programs for residential aged care and daily living support. BSL supplies research and policy options on affordable housing, taxation, and retirement incomes. They also research difficulties older jobseekers face when applying for jobs (ibid).

BSL is a vast community organization with many people filling a variety of different roles. With 600 employees and over 1000 volunteers, it ensures all aspects of the BSL mission are being met. The authority of BSL is broken up into three main divisions. The Board, the main directors of BSL, comprises of the Board Chair, The Most Reverend Dr Philip Frier, the Deputy Chair, Michael James, several Board Directors and the Executive Director, Ms. Conny Lenneberg (ibid). The Executive Director is the head of BSL. Under Ms. Lenneberg is the Executive Team. The Executive Team consists of many different people divided into specific divisions that oversee the wide array of services that BSL coordinates. Some divisions include Program and Policy, Public Affairs and Policy, Local Area Coordination and Service Development (ibid). For our project, we will be working alongside several people. Our main contact, Diane Brown, serves as BSL's Research and Service Development Manager for Youth Transitions (James, Farouque, & Browne, 2016). She will be a great resource for us as she is directly involved with young, job-seeking Australians. Some other people we could work with are Sally James (Principal Advisor for Youth Transition and manager of youth employment programs) and Farah Farouque (Principal Advisor, Public Affairs and Policy and manager of the youth employment campaign) (James, Farouque, & Browne, 2016). In addition, some sections of BSL that could benefit us are Children, Youth and Families and Work and Learning.

BSL has many resources available it can bring to bear on the problem of youth unemployment. The organization is in a good financial situation to be able to contribute to services and programs that tackle youth unemployment. They had an operating surplus of $1.7 million for the 2016-17 year, an increase from $500 thousand in 2015–16. They also had a $2.5 million increase in the market value of their investments. About 7% of the organization's operating costs were spent directly on issues related to work and learning. 4% was spent on research and policy (BSL Financial Report, 2017). The Brotherhood of St Laurence is one of the leading providers for youth unemployment research and program development.