2020 RESEARCH SEMINAR SERIES
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Development of a Reasonable Adjustments for Inclusive Education Rating Scale

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Living with Disability Research Centre, June 2020
Reasonable Adjustments

Adjustment is “measure or action” that will assist a student with disability to

• Apply for admission to enrolment
• Participate in the courses in which they are enrolled
• Use school services and facilities on the same basis as a student without disability

(Dickson, 2019)

Considered reasonable according to consideration of all relevant circumstances and interests

Exemptions can be made on the basis of *unjustifiable hardship*
Reasonable Adjustments

Required of education providers in Australia

  Disability Standards for Education 2005 (Cth)
  Disability Discrimination Act 1992 (Cth)

Policy objective of the National Disability Insurance Scheme as a means of ensuring people with disability can access mainstream services
Randomised Controlled Trial to assess the efficacy of a brief intervention to train teachers, allied health professionals and parents in designing reasonable adjustments

RAIE = Dependent Variable
Student Scenarios

Sienna
8 years, 2\textsuperscript{nd} grade
complex communication needs
uses iPad for some communication and leisure

Parri
11 years, 6\textsuperscript{th} grade
narrow range of interests
“conversational” with poor comprehension
can be excitable

Elang
9 years, 3\textsuperscript{rd} grade
likes to be active
can demonstrate difficult behaviour
communication difficulties include immediate and delayed echolalia, poor comprehension
Development of the RAIE

Task:

What 3 reasonable adjustments can you suggest to enable Sienna to participate in a Literacy and Health Physical Education (Curriculum Focus Area) lesson

The class is developing a collage that will comprise 4 different collages about Surash, a young girl who is planning a picnic with her brother and sister. The teacher gives them the start to the story, which she writes on the board: “Suresh and her friends, Carla and Yuma, are going on a picnic in a park. They have to decide what they will take to eat, how they will get to the park, and what they will wear.” Each table has a large sheet of butcher’s paper and given different aspects to focus on, with possible options represented in pictures. These relate to (a) what healthy things they might pack to eat, (b) different ways they could get to the park and then back home, and (c) what they will wear to make sure they are ready for any sort of weather. Each table must write the words that go with the pictures they have chosen for their part of the story. After each table of students has completed their part of the story, the teacher will put them up on the wall for the class to read the whole story.
The speech pathologist will be asked to develop a pictured social story for how to work collaboratively with the other students in her group, without disrupting them, so the teacher assistant can practice it with her prior to the activity.

Sienna will be assigned to the part of the story about healthy things to bring to the picnic. The teacher will include options for the table of students assigned this part of the story that are on Sienna’s communication board and she has previously used spontaneously.
Task
Rate Reasonable Adjustments using a 5-point scale

Provided with a manual

Background
Explanation of social and medical models of disability
Multi-tiered Systems of Support
Student scenarios
Guidelines for rating (e.g., base rating on information provided only)
Expert Panel

1 previous principal (mainstream and special education)
1 social worker and parent of school aged child
1 primary school teacher and parent of preschool child
1 speech pathologist providing services to school-age children and in schools

This Photo by Unknown Author is licensed under CC BY
Trial Reasonable Adjustments

2 teachers and 2 allied health professionals provided trial data

Examples:

Give Sienna a go at writing in response to a food item, e.g., strawberry, and give some sound cues – e.g., what sound does strawberry start with? Provide whatever assistance is needed for Sienna to write the word. Use the same materials as others in the class, making sure they are bright and separate pictures for each item.

The teacher can put Sienna with other children who are struggling so that the teacher assistant can assist the group, and discuss the task with all of the children in a group and assist them in understanding why they are doing the tasks.
Rating Scale v1

1
Not at all aligned with SMD

5
Fully aligned with SMD
Expert Panel Consensus Discussions

Consideration of **dimensions** that panel members felt were required for *good* reasonable adjustments:

<table>
<thead>
<tr>
<th><strong>Authenticity</strong></th>
<th>The extent to which the adjustment results in a genuine learning activity, rather than simply occupying the student.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Real Learning</strong></td>
<td>The extent to which the reasonable adjustment will address specific need(s) so that the opportunity for the student to learn is enhanced.</td>
</tr>
<tr>
<td><strong>Agency</strong></td>
<td>The extent to which a student has choice or control in the activity</td>
</tr>
<tr>
<td><strong>Strengths-based</strong></td>
<td>The extent to which the reasonable adjustment provides opportunities to incorporate a student’s skill strengths and interests to further build and extend their learning and development</td>
</tr>
<tr>
<td><strong>Inclusion</strong></td>
<td>The extent to which the student is learning or engaged with peers in the same activities - even if additional supports are provided, or if the level or specific type of learning outcome differs</td>
</tr>
</tbody>
</table>
Rating Scale v2

Extent to which a reasonable adjustment is aligned with the social model of disability (inclusion) with consideration of the 5 dimensions

Scored 1 - 5

5 = A reasonable adjustment (RA) that is clearly and fully aligned at the Social Model end of the scale. The RA reflects universal design, in that it is delivered to all students to meet a class learning outcome or behavioural goal. It builds on the student’s strengths, while also providing the scaffolds needed by the target student to maximise engagement and success. The target student is fully involved in the activity with class peers, such as having the same options or opportunities to make choices or follow preferences available to other students.

1 = A RA that is fully aligned with an Individual or Medical Model. The RA is provided to the target student only, with the purpose of achieving an outcome specific to the student, or the outcome is not clear. The RA does not appear related to the targeted class learning or behavioural outcome. It involves doing something different and/or separate to the other students. There is no indication that the target student has any choice in relation to the activity or supports provided. There may be no indication of the target student returning to the class activity or being actively engaged.
Rating Scale v3

Rating of each individual dimension using the same 5-point scale

<table>
<thead>
<tr>
<th></th>
<th>Not at all aligned with SMD</th>
<th>Fully aligned with SMD</th>
</tr>
</thead>
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<td>5</td>
</tr>
<tr>
<td>Real learning</td>
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<td>5</td>
</tr>
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<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Agency</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Inclusion</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>
### RAIE Development

#### Expert Panel Ratings 1 and Discussion

<table>
<thead>
<tr>
<th>Unidimensional</th>
<th>Poor agreement</th>
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<tbody>
<tr>
<td>Contrived Reasonable Adjustments</td>
<td></td>
</tr>
</tbody>
</table>

#### Expert Panel Rating 2 and Discussion

<table>
<thead>
<tr>
<th>Unidimensional v2</th>
<th>Poor agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trial Reasonable Adjustments</td>
<td></td>
</tr>
</tbody>
</table>

#### Expert Panel Rating 3 (Qualtrics)

<table>
<thead>
<tr>
<th>Unidimensional with Explanations for Trial Examples</th>
<th>Poor Agreement</th>
</tr>
</thead>
</table>
RAIE Development

Researcher Agreement

Teresa Iacono and Michael Arthur-Kelly
Good agreement

Expert Panel Rating 4 (Qualtrics)

Multidimensional
Trial & Contrived Reasonable Adjustments (n = 12)
Poor agreement

New Researcher Ratings (Qualtrics)

Multidimensional
Trial & Contrived Reasonable Adjustments (n = 12)
Acceptable to Good Agreement
Expert Panel Overall Rating

Reasonable Adjustment number (Elang 1-5; Parri 6-10; Sienna 11-12)

- Panel member 1
- Panel member 2
- Panel member 3
- Panel member 4
Expert Panel Dimensions Rating - Authenticity

Level of difference to Teresa

Reasonable Adjustment number (Elang 1-5; Parri 6-10; Sienna 11-12)

- Panel member 1
- Panel member 2
- Panel member 3
- Panel member 4
Expert Panel Dimensions Rating - Inclusion

Panel member 1  Panel member 2  Panel member 3  Panel member 4

Reasonable Adjustment number (Elang 1-5; Parri 6-10; Sienna 11-12)

Level of difference to Teresa
Researcher Rating Agreement Across Dimensions

% of point difference to Teresa

- 0 point difference
- 1 point difference

MAK: 84%
Researcher Rating Agreement Across Dimensions

- MAK: 84% 0 point difference
- Oriane: 75% 0 point difference
- Emily: 0% 1 point difference

Legend:
- 0 point difference
- 1 point difference
Researcher Rating Agreement Across Dimensions

![Bar chart showing percentage of point difference to Teresa across MAK, Oriane, and Emily raters.]

- MAK: 84%
- Oriane: 75%
- Emily: 87%

Legend:
- Black: 0 point difference
- Green: 1 point difference
Expert Panel Explanations for Ratings

• Expectation that they will reflect the student’s individual learning plan goals
• Not able to focus on the activity, but rather predicting how the reasonable adjustment will support the class activity
• Wanting to or making assumptions about information not included in the scenario
• Some blurring of dimensions
• Different definitions of inclusion
• Found the task difficult
Insights

• Work with the expert panel provided an enriched conceptualisation of reasonable adjustments

• Inclusion for the purpose of belonging and participating with peers, but also having the best opportunities to learn and experience equality

• Participation in the development process may have created difficulties in being objective in applying the operational definitions for each dimension

• Researchers not involved in the process had greater agreement with other researchers, but still found it difficult
Steps

Data from 30 RCT participants

Yielded 597 reasonable adjustments for 3 student scenarios

Entered into Qualtrics for rating using version 3

First CI and 1 RA completed 100% of ratings in 4 batches

Data for RCT
## Reliability across Batches

<table>
<thead>
<tr>
<th>Batch</th>
<th>Overall</th>
<th>Agency</th>
<th>Authenticity</th>
<th>Inclusion</th>
<th>Real Learning</th>
<th>Strengths Based</th>
</tr>
</thead>
<tbody>
<tr>
<td>Batch 1</td>
<td>494/660</td>
<td>74.8%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Batch 2</td>
<td>507/720</td>
<td>70.4%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Batch 3</td>
<td>482/655</td>
<td>73.6%</td>
<td>94/131</td>
<td>103/131</td>
<td>90/131</td>
<td>91/131</td>
</tr>
<tr>
<td></td>
<td>73.6%</td>
<td>71.8%</td>
<td>78.6%</td>
<td>68.7%</td>
<td>69.5%</td>
<td>79.4%</td>
</tr>
<tr>
<td>Batch 4</td>
<td>767/950</td>
<td>80.7%</td>
<td>164/190</td>
<td>163/190</td>
<td>162/190</td>
<td>130/190</td>
</tr>
<tr>
<td></td>
<td>86%</td>
<td>85.8%</td>
<td>85.3%</td>
<td>68.4%</td>
<td>68.4%</td>
<td>77.9%</td>
</tr>
</tbody>
</table>
Analysis

Control
- Pre
  - 2 Scenarios
  - 3 Participant types
- Post
  - 2 Scenarios
  - 3 Participant types
- Follow-Up
  - 3 Scenarios (1x Generalisation)
  - 3 Participant types

Intervention
- Pre
  - 2 Scenarios
  - 3 Participant types
- Post
  - 2 Scenarios
  - 3 Participant types
- Follow-Up
  - 3 Scenarios (1x Generalisation)
  - 3 Participant types

Mean RAIE score per scenario per participant
Desired endpoint?

• RAIE will be easy and reliable tool for evaluating the quality of reasonable adjustments developed by members of student support teams

• Comparative research using a common index focused on nature rather than level of adjustment

• Potential to explore consistency and construct validity with data from the RCT

• Descriptive analysis based on coding
  • Non-reasonable adjustments
  • Relationship to the scenario
  • Frequent strategies (pictures, social stories, sensory breaks, pre-lesson training)
Funding: La Trobe University Building Health Communities Grant
Thanks to our expert panel members and trial participants

References

