ROOT

Lauren Longhurst
Research Officer
RCSLT Online Outcome Tool
Supporting the delivery of quality services
The RCSLT Outcomes Programme

Initiated in 2013 to respond to drivers internal and external to the profession

<table>
<thead>
<tr>
<th>INTERNAL</th>
<th>EXTERNAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrating the impact of SLT interventions</td>
<td>Outcome measurement not embedded - historical focus on inputs, processes &amp; outputs</td>
</tr>
<tr>
<td>Contribution to local, regional &amp; national outcomes</td>
<td>Use of terminology &amp; definitions</td>
</tr>
<tr>
<td>Supporting service evaluation</td>
<td>Few validated outcome measures</td>
</tr>
<tr>
<td>Developing the evidence base</td>
<td>National policies and frameworks</td>
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<tr>
<td>Supporting business case development</td>
<td>Outcomes based commissioning</td>
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</tbody>
</table>
The RCSLT Outcomes Programme

- RCSLT Board of Trustees opted for a pragmatic approach: identifying an existing outcome measure to begin to gather consistent data for the SLT profession
  - **Initial phase:** find an existing outcome measurement tool that will meet ‘best fit’ criteria agreed by members
  - **Subsequent phases:** identify how to fill gaps and look at other approaches (not defined in detail)
RCSLT Outcomes Programme workstreams

Influencing national policy on data and outcomes

RCSLT led outcomes work

RCSLT Online Outcome Tool

Measuring the impact of children’s universal/targeted SLT services

Measuring the impact of non-patient attributable work in ALD services

Developing more specific measures for each clinical area
Influencing national policy on data and outcomes

**RCSLT led outcomes work**

- RCSLT Online Outcome Tool
- Measuring the impact of children’s universal/targeted SLT services
- Measuring the impact of non-patient attributable work in ALD services
- Developing more specific measures for each clinical area
Identified an existing outcome measure that was the ‘best fit’ for data collection across the SLT profession.

Developed and piloted an online tool to support with data collection and reporting – the RCSLT Online Outcome Tool (ROOT).

Evaluation of the pilot indicated that the ROOT added value to the services.

Roll-out of the ROOT across the SLT profession using a phased approach.
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Roll-out of the ROOT across the SLT profession using a phased approach
RCSLT members’ ‘best fit’ criteria

<table>
<thead>
<tr>
<th>Table one: The 11 criteria agreed for existing outcome measures at the October 2013 and subsequent RCSLT Hub meetings</th>
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</thead>
<tbody>
<tr>
<td>1. Is it reliable?</td>
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<td>2. Is it valid?</td>
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<tr>
<td>3. Is it suitable across key client groups?</td>
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<td>4. Is training available?</td>
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<td>5. Is it easy to access?</td>
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<td>6. Is it easy and quick to use?</td>
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<td>7. Is it compatible with existing tools?</td>
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<td>8. Can it work with the main areas of SLT practice and current priorities?</td>
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<td>9. Can it capture long term/ultimate outcomes?</td>
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<td>10. Can it take account of different stakeholders’ priorities for outcomes?</td>
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<tr>
<td>11. Can it capture the range of service elements provided: interventions, training, adaptations to the environment, universal level etc?</td>
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</table>
Identifying an existing outcome measure

- Therapy Outcomes Measure (TOMs) (Enderby, John and Petheram, 2006)¹ was identified as the measure most fit for purpose
- It was acknowledged that:
  - The adoption of TOMs was a starting point for the profession’s journey on outcome measurement
  - TOMs would not be used as a ‘stand-alone’ option but employed alongside other outcome measures and other tools/frameworks
  - TOMs is not applicable across all clinical areas and settings (e.g. universal services/Public Health) and parallel RCSLT work-streams would be established to consider how to fill these gaps

¹ Third edition available (Enderby and John, 2015)
Therapy Outcome Measures

Enderby and John (2015)

- TOMs scales address four dimensions of an individual in line with the International Classification of Functioning, Disability and Health (WHO, 2007):
  - **Impairment** - the severity of the presenting difficulty/condition
  - **Activity** - the impact of the difficulty on the individual’s level of independence
  - **Participation** – impact on levels of social engagement and autonomy
  - **Wellbeing** – impact on mental and emotional wellbeing

- Each dimension is measured on an 11-point ordinal scale with six defined descriptors, ranging from 0 (worst case scenario), to 5 (best possible presentation).
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Roll-out of the ROOT across the SLT profession using a phased approach
The RCSLT Online Outcome Tool

• The RCSLT Online Outcome Tool (ROOT) is being developed to support practitioners with:
  – Collecting and collating outcomes data using two methods:
    - Direct data entry
      • Data is entered directly into the ROOT
    - Data upload
      • Data collected in local electronic systems is exported and uploaded to the ROOT

  – Evaluating and reporting outcomes
### Therapy Outcome Measures

**You are here:** Home → Patient Search → Anonymous Patient (7465) → Episode: → Start of Episode (23 Mar 2018)

**Communication and Swallowing Disorder (Primary):** Receptive language disorder;

**Primary TOMs Scale:** Child Language Impairment

**Date of rating:** 23 Mar 2018

**Rating Type:**

#### Impairment (Child Language Impairment):

<table>
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<tr>
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<th>0</th>
<th>0.5</th>
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**Activity (Child Language Impairment):**

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**Participation:**

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**Wellbeing:**

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**Carer Well Being:**

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<thead>
<tr>
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The descriptors for the adapted scales available in the RCSLT Online Outcome Tool are published in the third edition of Therapy Outcome Measures For Rehabilitation Professionals (Enderby & John, 2015). For more information about the adapted scales and descriptors, please click [here](#).
Developing and testing the RCSLT Online Outcome Tool

Source: https://project-management.com/10-key-principles-of-agile-software-development/
ROOT pilot sites & early adopters

Northern Ireland
3 pilot sites
1 expression of interest

Scotland
1 pilot site
7 expressions of interest

England
21 pilot sites
119 expressions of interest

Wales
2 pilot sites
5 expressions of interest
Individual service user
Groups of service users
Identified an existing outcome measure that was the ‘best fit’ for data collection across the SLT profession

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Evaluation of the pilot indicated that the ROOT added value to the services

Roll-out of the ROOT across the SLT profession using a phased approach
Applications of the reports

Individual clinicians

“Easy to see patterns and where we are actually having an impact on our clients’ lives”

“It all makes doing TOMs more worthwhile for everyone”

SLT teams/services

“enabled quicker analysis and a greater range of information and detail”

“We are starting to look at how/what area therapy benefits the clients”

“able to demonstrate to directorates and management more detail regarding clinical outcomes and value of SLT”
### Sample report: Dysphagia outcomes

<table>
<thead>
<tr>
<th></th>
<th>Impairment</th>
<th>Activity</th>
<th>Participation</th>
<th>Wellbeing</th>
<th>Carer Wellbeing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average Start</td>
<td>Average Final</td>
<td>Average Change</td>
<td>Average Start</td>
<td>Average Final</td>
</tr>
<tr>
<td>Dysphagia</td>
<td>2.76</td>
<td>3.49</td>
<td>0.74</td>
<td>2.63</td>
<td>3.46</td>
</tr>
<tr>
<td>Episodes:</td>
<td>(1549)</td>
<td></td>
<td></td>
<td>(1459)</td>
<td></td>
</tr>
<tr>
<td>Patients:</td>
<td>(1459)</td>
<td></td>
<td></td>
<td>(1140)</td>
<td></td>
</tr>
</tbody>
</table>

Figure 1: Average (mean) change in TOMs between start and final ratings across each domain of TOMs (Impairment, Activity, Participation, and Well-being) from 1 January 2017 – 31 December 2017

<table>
<thead>
<tr>
<th></th>
<th>Impairment</th>
<th>Activity</th>
<th>Participation</th>
<th>Wellbeing</th>
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</tr>
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<td></td>
<td>Average Start</td>
<td>Average Final</td>
<td>Average Change</td>
<td>Average Start</td>
<td>Average Final</td>
</tr>
<tr>
<td>Dysphagia</td>
<td>2.65</td>
<td>3.39</td>
<td>0.75</td>
<td>2.58</td>
<td>3.41</td>
</tr>
<tr>
<td>Episodes:</td>
<td>(1195)</td>
<td></td>
<td></td>
<td>(1140)</td>
<td></td>
</tr>
<tr>
<td>Patients:</td>
<td>(1140)</td>
<td></td>
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<td>(1140)</td>
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</tr>
</tbody>
</table>

Figure 2: Average (mean) change in TOMs between start and final ratings across each domain of TOMs (Impairment, Activity, Participation, and Well-being) from 1 January 2018 – 31 December 2018
### Sample report: Dysphagia outcomes

#### Figure 1: Average (mean) change in TOMs between start and final ratings across each domain of TOMs (Impairment, Activity, Participation, and Well-being) from 1 January 2017 – 31 December 2017

<table>
<thead>
<tr>
<th>Domain</th>
<th>Average Start</th>
<th>Average Final</th>
<th>Average Change</th>
<th>Average Start</th>
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<th>Average Change</th>
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<th>Average Final</th>
<th>Average Change</th>
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<tbody>
<tr>
<td>Impairment</td>
<td>2.76</td>
<td>3.49</td>
<td>0.74</td>
<td>2.63</td>
<td>3.46</td>
<td>0.83</td>
<td>2.77</td>
<td>3.5</td>
<td>0.72</td>
<td>3.09</td>
<td>3.84</td>
<td>0.76</td>
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<tr>
<td>Activity</td>
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<td>Wellbeing</td>
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<td>Carer Wellbeing</td>
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</table>

**Dysphagia**
- Episodes: (1549)
- Patients: (1459)

#### Figure 2: Average (mean) change in TOMs between start and final ratings across each domain of TOMs (Impairment, Activity, Participation, and Well-being) from 1 January 2018 – 31 December 2018

<table>
<thead>
<tr>
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<th>Average Final</th>
<th>Average Change</th>
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<tbody>
<tr>
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<td>3.39</td>
<td>0.75</td>
<td>2.58</td>
<td>3.41</td>
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<td>2.71</td>
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<td>Activity</td>
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<td>Carer Wellbeing</td>
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**Dysphagia**
- Episodes: (1195)
- Patients: (1140)
## Sample report: Dysarthria outcomes

**Figure 3:** Report showing the direction of change in TOMs between initial and final ratings across each domain of TOMs (Impairment, Activity, Participation, and Well-being) for adults with dysarthria.

<table>
<thead>
<tr>
<th>Key</th>
<th>Impairment ($E = 1,014$)</th>
<th>Activity ($E = 1,014$)</th>
<th>Participation ($E = 1,006$)</th>
<th>Wellbeing ($E = 1,004$)</th>
<th>Carer Wellbeing ($E = 96$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Down</td>
<td>61.5%</td>
<td>60.3%</td>
<td>57.7%</td>
<td>64%</td>
<td>61.5%</td>
</tr>
<tr>
<td>Same</td>
<td>31.1%</td>
<td>32.1%</td>
<td>34.5%</td>
<td>27.4%</td>
<td>29.2%</td>
</tr>
<tr>
<td>Up</td>
<td>7.4%</td>
<td>7.7%</td>
<td>7.9%</td>
<td>8.6%</td>
<td>9.4%</td>
</tr>
</tbody>
</table>

**Episodes = (1014) Patients: (977)**
Figure 4: Report showing the direction of change in TOMs between initial and final ratings across each domain of TOMs (Impairment, Activity, Participation, and Well-being) for adults with dysarthria in association with stroke.

- **Impairment (E = 535)**: 71% Down, 4.3% Same, 24.7% Up
- **Activity (E = 535)**: 68% Down, 5.2% Same, 26.7% Up
- **Participation (E = 531)**: 63.5% Down, 5.1% Same, 31.5% Up
- **Wellbeing (E = 529)**: 70.5% Down, 5.3% Same, 24.2% Up
- **Carer Wellbeing (E = 21)**: 71.4% Down, 14.3% Same, 14.3% Up
Sample report: Dysarthria in association with motor neurone disease

**Figure 5:** Report showing the direction of change in TOMs between initial and final ratings across each domain of TOMs (Impairment, Activity, Participation, and Well-being) for adults with dysarthria in association with motor neurone disease.

<table>
<thead>
<tr>
<th>Key</th>
<th>Impairment (E =212)</th>
<th>Activity (E = 212)</th>
<th>Participation (E = 210)</th>
<th>Wellbeing (E = 211)</th>
<th>Carer Wellbeing (E = 44)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Down</td>
<td>Same</td>
<td>Up</td>
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</table>

- **Impairment (E =212)**
  - Episodes = (212)
  - Patients: (200)
  - 53.3% Down
  - 5.2% Same
  - 41.5% Up

- **Activity (E = 212)**
  - 56.6% Down
  - 5.2% Same
  - 38.2% Up

- **Participation (E = 210)**
  - 56.7% Down
  - 7.1% Same
  - 36.2% Up

- **Wellbeing (E = 211)**
  - 63.5% Down
  - 7.1% Same
  - 29.4% Up

- **Carer Wellbeing (E = 44)**
  - 65.9% Down
  - 9.1% Same
  - 25% Up

Average across all conditions:
- Impairment: 61.5%
- Activity: 60.3%
- Participation: 57.7%
- Wellbeing: 70.5%
- Carer Wellbeing: 61.5%
How the ROOT is supporting speech and language therapists to deliver quality services?

Our **webinar** provides some detailed examples of how the outcomes data is being used by services, including:

- Supporting individual clinicians with their clinical decision making and to inform patient care
- Evaluating the effectiveness of interventions and areas for improvement
- Supporting service improvement, planning and redesign
- Providing information about the impact of speech and language therapy to key stakeholders, including funders and commissioners
Identified an existing outcome measure that was the ‘best fit’ for data collection across the SLT profession.

Developed and piloted an online tool to support with data collection and reporting – the RCSLT Online Outcome Tool (ROOT).

Evaluation of the pilot indicated that the ROOT added value to the services.

Roll-out of the ROOT across the SLT profession using a phased approach.
Phased approach to implementation

- The RCSLT is rolling out the ROOT across the speech and language therapy profession using a phased approach while continuing to iterate the tool in response to feedback.
- Over 150 SLT services have expressed an interest to date – includes SLTs services across the UK working in a range of clinical areas, settings and organisations.
- Supporting ‘early adopters’ to implement the ROOT in their service by working through a flowchart and continuing to develop and refine resources to support with implementation.
Are you ROOT-ready?

Are the SLTs in your team/service trained in or familiar with using TOMs?

Do you undertake regular reliability checks in your team/service?
Are you ROOT-ready?

Will you be using the “direct data entry” method or the “data upload” method to share your data with the ROOT?

**Direct data entry**
- Data is entered directly into the ROOT

**Data upload**
- Data collected in local electronic systems is exported and uploaded to the ROOT
Are you ROOT-ready?

Have you begun the process of engaging key colleagues in your organisation to discuss the possibility of using the ROOT?

Has your organisation completed the data processing agreement with Different Class Solutions Ltd?
Are you ROOT-ready?

A member of the team at RCSLT will be in contact with information about:

- ROOT training
- Setting up users on the ROOT
- Practical hints and tips for getting started
Resources to support implementation
(updated in line with GDPR)

Getting ready to use the ROOT

- ROOT-ready flowchart
- Briefing pack
- Information governance pack
- Data specification
  
https://rcslt-root.org/Content/getting-ready-to-use-the-root

Training and support

- Training modules
- FAQs