Est. 1841 | YORK ST JOHN UNIVERSITY

Marrison, Eden and Laver Fawcett, Alison
(2016) Contributing to the improvement of the dynamic aspect of the Structured Observational Test of Function (SOTOF). In: COTEC-ENOTHE 2016, 15-19 June 2016, Galway, Ireland.

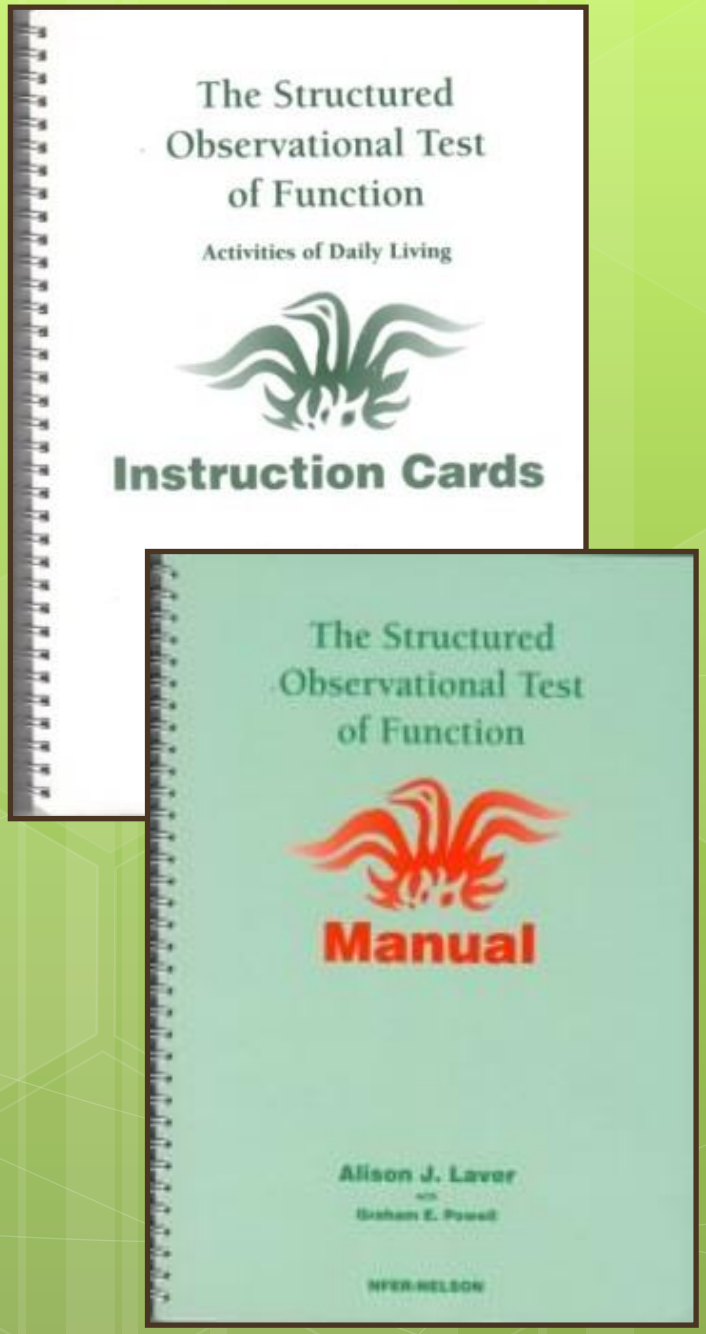
Downloaded from: https://ray.yorksj.ac.uk/id/eprint/1571/

Research at York St John (RaY) is an institutional repository. It supports the principles of open access by making the research outputs of the University available in digital form. Copyright of the items stored in RaY reside with the authors and/or other copyright owners. Users may access full text items free of charge, and may download a copy for private study or non-commercial research. For further reuse terms, see licence terms governing individual outputs. Institutional Repository Policy Statement

RaY

Research at the University of York St John

For more information please contact RaY at ray@yorksj.ac.uk



Contributing to the improvement of the dynamic aspect of the Structured Observational Test of Function (SOTOF)

By Alison Laver-Fawcett and Eden Marrison

Recent study to enhance the dynamic assessment component

- Eden Marrison - 3rd year BHSc(Hons) Occupational Therapy student who collaborated in this study for her final year project

Aim

- To contribute to the improvement of the dynamic aspect of the SOTOF

Objectives

- To critically evaluate how the dynamic concept is used within occupational therapy practice and other assessments.
- To develop an additional part to the SOTOF record form for cues/prompts section, to develop examples in the instruction cards and add a section in the SOTOF manual to explain how the dynamic element is assessed and reported.

Structured Observational Test of Function (SOTOF)

- A structured assessment tool used in OT practice that uses elements of a dynamic ("interactive") approach to assess ADL skills
- Developed to provide a detailed description of functional status and associated neuropsychological deficits within a structured evaluation of ADL
- Aims to evaluate performance of activities of daily living and provides detailed information on neurological function.
  - **(Laver and Powell, 1995)**

Development of SOTOF

- Studies were undertaken to establish test-retest and interrater reliability for the screening assessment, the four activities of daily living (ADL) tasks and the neuropsychological checklist
- Other studies have established construct and criterion-related validity, face validity, clinical utility and internal consistency across the whole test
- An additional study established normative standards for descriptive responses, the SOTOF was found to discriminate between patients with neurological damage and healthy adults
  - **(Laver and Powell, 1995)**

Study to enhance the dynamic aspect of the SOTOF: Eden Marrison (2016)

- Given the advances in dynamic assessments and the appreciation of the value of dynamic assessment for occupational therapy practice since the SOTOF was developed, this study aimed to contribute to the improvement of the dynamic aspect of the SOTOF.
- The project was a test-development study.
- Three separate literature searches were used focusing on the dynamic concept, occupational therapists' use of the dynamic concept and specific dynamic assessments.
- Other dynamic assessments and their manuals were reviewed to identify their dynamic elements, in order to develop recommendations and ideas for the SOTOF.
- Owing to the nature of this study the data analysis used a narrative approach to analyse and interpret the data.

Results

- Occupational therapists have skills and knowledge surrounding the dynamic concept.
- Dynamic assessments provide an in-depth analysis of an individual's abilities and document how this can change owing to some form of prompt or guidance.
- The SOTOF can remain standardised whilst introducing a more dynamic aspect, therefore, drawing on identified literature and test manuals, aspects of the SOTOF have been further developed to enhance the dynamic element.

What are dynamic assessments?

- Dynamic assessments focus on the process and how performance can improve due to some form of guidance (Hadas-Lidor, Weiss & Kozulin 2011)
- Dynamic assessments allows the clinician to focus on individual variations, changes and barriers to performance and explore how individuals can improve their performance with some form of guidance instead of focusing on normative data and typical performance (Toglia and Cermak, 2009; Cotrus and Stanciu, 2014).
- Dynamic assessments can provide occupational therapists with information to guide their intervention planning and to set realistic goals (Katz et al., 2012a; Toglia, 2011).
- Dynamic assessments view cognition as modifiable, they provide a direct link to intervention and are flexible and person-centred (Toglia, 2011).

What is the link to occupational therapy?

- Occupational therapists have the skills required to engage in the dynamic concept, they have an ability to adapt and grade activities to enable individuals to engage in occupations and experience success, supporting intrinsic motivation (Boyt Schell et al., 2014).
- Occupational therapists have a unique understanding of self-awareness, processing strategies, cues, grading, scaffolding and how they are modifiable and vital when understanding occupational performance (Toglia, 2005).
- Dynamic assessments are naturally applicable to occupational therapists (Missuina, 1987).
- Literature suggests the dynamic concept is embedded into occupational therapists' theory of practice, therefore, they are able to appreciate it.

SOTOF (2nd edition) Graduated prompt protocol

0	**Independent**	The person is independent completing the task. No prompting or assistance is required from the clinician.
1	**General prompt**	This could be a statement (Katz et al., 2011) e.g. 'take your time' or could be a general question e.g. 'what do you think is the next step?' or 'what else might you need to complete this task?' (Baum and Wolf, 2013 p.3). This is not an action or telling the person what to do.
2	**Gestural Cue**	This could be miming the action that is required to complete the particular task or a movement that may guide the participant. This may include pointing to where they might find an item or pointing to equipment they may need to complete the task (Baum and Wolf, 2013).
3	**Specific feedback / specific verbal cue**	This is a verbal cue. It may be feedback (Katz et al., 2011) such as 'there is a mistake, can you try and correct it' or a command such as 'pick up the cup' (Baum and Wolf, 2013 p.3).
4	**Physical assistance** and / or **Co-active assistance** and / or **Modifications** and / or **Demonstration**	**Physical assistance**: This clinician physically supports the person to complete an action, e.g. hold the shirt whilst the person puts his / her first arm in the sleeve (Baum and Wolf, 2013). **Co-active assistance**: The clinician physically guides the movement but allowing the person to lead and withdraws the physical assistance if the person takes over the movement (Sanderson and Gitsham, 1991). **Modifications**: The clinician reduces the amount of stimuli or modifies the environment to reduce the task demand (e.g. changing the physical environment; Katz et al., 2011). **Demonstration**: The clinician may also do the action using task items in order for the person to copy (Katz et al., 2011). The person should still be attending to the task (Baum and Wolf, 2013).
5	**Do for the person**	The person is unable to complete the task so the clinician completes the task, or the part of the task, for the person.

As adapted from EFPT (Baum and Wolf, 2013) and DLOCTA-G (Katz et al., 2011).

Instructions for applying the graduated prompt protocol

- When using the record form tick the highest level of the graduated prompt protocol carried out in each subtest to complete the task.
- In the summary section of each task the clinician should comment on the learning potential of the person and how effective the prompts / cues / modifications / assistance were.
- The most effective level for that individual is important to identify to inform future assessments and/or interventions and / or client and carer education.

Instructions for applying the graduated prompt protocol

- The higher the score the more assistance is required by the person. In order to complete the final scoring in the neuropsychological checklist the clinician should look down all the scores within each task and whichever sub-test item scores the highest on the graduated prompt protocol is the one recorded for that task.
- This is because somewhere within the task the person needed that level of assistance in order to be successful.
- Examples of prompts / cues /modifications / assistance for levels 1 to 4 for each sub-test item can be found in the third column of the SOTOF (2nd edition) Instruction Cards.
- Unless they are not applicable for that type of sub-test item, for example, if the person has their eyes closed to offer a gestural cue is not appropriate.
- As level four has a variety of different prompting options for the clinician to use, when completing the record form the specific type of physical assistance, co-active assistance, demonstration or modification provided at this level should be noted on the form.

SOTOF (2nd edition): Task 1 Eating revised instruction cards

Standardised instructions for administration

To aid diagnostic reasoning you also have suggestions for possible areas of deficit linked to each test item

NEW
Graduated prompt protocol specific test item examples

Suggestions for further prompts, cues and assessment

	TASK 1: Eating Task and instruction	Possible area of deficit	Graduated prompt protocol examples	Further suggested assessment
1.	(EL) Instruct: 'Please close your eyes. I am putting an object in your hand, and I want you to tell me what it is without looking.' Put the spoon in the hand on the opposite side to the cerebral lesion. If client fails to identify, reassess with the other hand.	• Tactile agnosia • Sensory deficit	1. **General prompt**: 'Can you feel what I have placed in your hand?' 2. **Gestural Cue**: N/A 3. **Specific feedback/cue**: if they provide a wrong answer, ask: 'that is incorrect, have another go' or 'feel around the item more'. 4. **Physical Assistance/modifications**: support the person's hand to feel around the spoon.	Assess visual object recognition. Assess sensation (light touch, pressure, pain and temperature) and proprioception of both hands. Reassess with other larger objects; if the person manages the tasks gradually reduce the size of objects to be identified.
2.	(EL) Ask: 'What can you see on the table?' (ED) Ask: 'Which is the… bowl, mat, spoon?' Note if person: • Scans table for objects; • Fixes gaze on objects; • Recognizes objects by (EL) naming of (ED) pointing.	• Visual scanning • Visual field loss • Visual attention • Visual agnosia • Figure-ground discrimination	1. **General prompt**: 'Have a good look around the table'. 2. **Gestural Cue**: Point to an area of the table they have missed. 3. **Specific feedback/cue**: 'You have not named all the items…have another look'. 4. **Physical Assistance/ modifications**: Move the objects around the table/ in front of the person.	Assess for visual field loss, such as hemianopia. Assess visual fixation: point to an object and ask the client to look at the object for five seconds. (EL) Ask the person to describe what she can see.

SOTOF (2nd edition): Task 1 Eating revised scoring form

	Item	Able	Unable	Prompts/cues required	Hypotheses, further assessments required, comments
1	(EL) Identifies spoon through touch.	[ ] Right [ ] Left	[ ] Right [ ] Left	[ ] 0. Independent [ ] 1. General prompt [ ] 2. Gestural cue [ ] 3. Specific feedback/cue [ ] 4. Physical assistance [ ] 5. Do for client	

Now introduced scoring

Summary section on SOTOF (2nd edition) record forms

Observations/Hypothesis

Summary:

Client's learning potential/which prompting method/level was most effective for client:

✓ Intact - strength ✗ Observed problems - deficit

Part of SOTOF Neuropsychological checklist

	Screening assessment	Eating Task 1	Washing Task 2	Pouring and Drinking Task 3	Dressing Task 4
LANGUAGE					
Comprehension	✓	✓	✓	✓	✓
Expression	✓	✓	✗	✗	✓
HEARING					
Hearing acuity	✓	✓	✓	✓	✓
Auditory agnosia					
COGNITION					
Orientation	✓	✓	✓	✓	✓
Attention	✓	✗	✗	✗	✗

SOTOF (2nd edition): revised level of independence rating

Occupational Performance	0 Independent	1 Needed General Prompt	2 Needed Gestural Cue	3 Needed Specific Feedback/ Cue	4 Needed Physical Assistance	5 Do for client
Eating: Client's ability to eat independently form a bowl.						
Washing: Client's ability to wash and dry hands.						
Pouring and Drinking: Client's ability to pour from a jug and to drink from a cup.						
Dressing: Client's ability to put on a front-fastening, long-sleeved garment.						

Conclusion

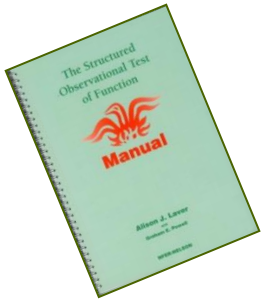
- It is evident from the findings that dynamic assessments are valuable tools and occupational therapists have the unique skills to practice the concepts of dynamic assessment.
- This study contributed to providing occupational therapists with an updated dynamic assessment tool to use for adult clients with neurological impairment.

Next steps

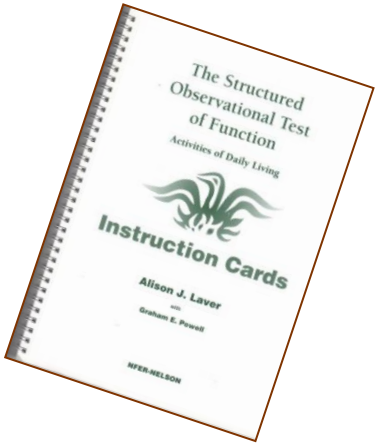
- We are planning a content validity and a clinical utility study of the SOTOF 2nd edition later this year.
- If **you** would be interested to:
  - review the SOTOF 2nd edition manual, instruction cards and scoring forms
  - Try administering the SOTOF 2nd edition with a few clients
  - Complete an on-line survey, the link to the survey will be sent out via email around November / December 2016

Then please email Alison at:
a.laverfawcett@yorksj.ac.uk

Any Questions?



SOTOF references



Original reference

- Laver AJ, Powell GE (1995) **The Structured Observational test of Function (SOTOF).** Windsor: NFER-Nelson

2nd edition

- Laver-Fawcett AJ, Marrison, E (2016) **Structured Observational test of Function (SOTOF). 2nd edition**. York: York St John University

How to get a copy:

- Please contact Alison at: a.laverfawcett@yorksj.ac.uk

References

- Baum CM and Wolf TM (2013) *Executive function Performance Test (EFPT) Manual*. Available at: http://www.ot.wustl.edu/about/resources/executive-function-performance-test-efpt-308 (accessed 28th February 2016).
- Boyt Schell BA, Gillen G, Scaffa ME and Cohn ES (2014) *Willard and Spackman's Occupational Therapy,* 12th ed. Philadelphia: Lippincott Williams and Wilkins.
- Clarke C, Sealey-Lapes C and Kotsch I (2001) *Outcome measures: information pack for occupational therapy*. London: College of Occupational Therapists.
- College of Occupational Therapists (COT; 2003) *Occupational Therapy defined as a complex intervention.* London: COT.
- College of Occupational Therapists (COT; 2004) *Guidance on the use of the International Classification of Functioning, Disability and Health (ICF) and the Ottawa Charter for Health Promotion in occupational therapy services.* London: COT.
- Cotrus A and Stanciu C (2014) A Study on **Dynamic Assessment** Techniques, as a Method of Obtaining a High Level of Learning Potential, Untapped by Conventional **Assessment.** *Procedia - Social and Behavioral Sciences* 116: 2616-2619.

References continued

- Hadas-Lidor N, Weiss P and Kozulin A (2011) Dynamic cognitive intervention: Application in occupational therapy. In N. Katz (ed) *Cognition and occupation across the life span: neuroscience, neurorehabilitation and models of intervention in occupational therapy,* 3rd ed. Bethesda, MD: AOTA Press, pp. 323- 350.
- Katz N, Averbuch S and Erez ABH (2011) *Dynamic Lowenstein Occupational Therapy Cognitive Assessment Geriatric (DLOTCA-G).* Pequannock NJ: Maddak.
- Katz N, Bar Haim Erez A, Livni L and Averbuch S (2012) Dynamic Lowenstein Occupational Therapy Cognitive Assessment: evaluation of potential to change in cognitive performance. *American Journal of Occupational Therapy* 66 (2): 207-215.
- Missiuna C (1987). Dynamic assessment: A model for broadening assessment in occupational therapy. *Canadian Journal of Occupational Therapy* 54: 17-21.
- Toglia JP (2005) A dynamic interactional approach to cognitive rehabilitation. In: Katz N (ed) *Cognition and occupation across the lifespan: models for intervention in occupational therapy*. Bethesda: American Occupational Therapy Association, pp. 29-72.
- Toglia JP (2011) The Dynamic Interactional Model of Cognition in Cognitive Rehabilitation. In: Katz N (ed) *Cognition and occupation across the life span: Models for intervention in occupational therapy,* 3rd ed. Bethesda: AOTA Press, pp. 161 – 201.
- Toglia J and Cermak S (2009) Dynamic Assessment and Prediction of Learning Potential in Clients With Unilateral Neglect. *American Journal of occupational therapy* 63 (5): 569 – 580.

Contact details

Alison J. Laver-Fawcett, PhD, O.T.(C), DipCOT, PCAP, SFHEA

York St John University
Lord Mayor's Walk, York
YO31 7EX

+44(0)1904-624624

a.laverfawcett@yorksj.ac.uk

York St John University