

19^e Symposium scientifique sur l'incapacité visuelle et la réadaptation

Reliability of the “Mesure de l'impact de la déficiência visuelle dans les activités quotidiennes ” (MIDVAQ)

Josée Duquette, Jocelyn Loiseau, Claire Fréchette, Lise Déry,
Marie-Josée Sénécal et Marie-Chantal Wanet-Defalque

Institut Nazareth et Louis-Braille du CISSS de la Montérégie-Centre; CRIR

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Research Project Team

Researchers

- Josée Duquette, M. Sc.
- Marie-Chantal Wanet-Defalque, Ph. D.
- Marie-Josée Senécal, O.D., M. Sc.

Project field experimenters (LVT)

- Jocelyn Loiselle, D.E.S.S.
- Claire Fréchette, D.E.S.S.
- Lise Déry, D.E.C.

Project field coordinator

- Kassandre Montisci, B. Sc.



The MIDVAQ

French translation and Quebec contextual adaptation of
Melbourne Low Vision ADL Index – Weighted version²

**MIDVAQ = Mesure de l' Impact de la Déficience
Visuelle dans les Activités Quotidiennes¹**

1. Haymes, S., Johnston, A., & Heyes, A. (2001). A Weighted version of the Melbourne Low-Vision ADL Index: a measure of disability impact. *Optometry and vision science*, 78(8), 565-579
2. Duquette J, Boisvert I, Boutet M, Normand M & MC Wanet-Defalque (2011). *Mesure de l'impact de la déficience visuelle dans les activités quotidiennes*. Longueuil : Institut Nazareth et Louis-Braille, 81 pages.

Objective of the MIDVAQ

- To measure the **personal impact** caused by the visual impairment in 25 activities of daily living, considering:
 - ✓ The **ability** to perform the task
 - ✓ The **personal importance** of the activity

Part A – Observed performance

16 near vision items (instrumental ADLs)

- **Finding information** (medicine and packet labels, account, letter, tel. book)
- **Telling time** (wrist watch, digital display, wall clock)
- **Reading** (newspaper print, headlines)
- **Writing** (cheque)
- **Face recognition**
- **Coins recognition**
- **Telephone dialing**
- **Needle threading**
- **Pouring water**



Part B – Questionnaire

9 self-care and domestic life activities

1. Dressing
2. Grooming
3. Bathing
4. Eating
5. Managing medicine
6. Preparing meals
7. Mobility
8. Housework
9. Shopping



Items ratings and scores

Ability **X** **Importance**

**= Impact
(Handicap)**

0

**Very
satisfactory**

**Totally
Unimportant**

**No
handicap**

0



4

**Very
Unsatisfactory**

Essential

**Total
Handicap**

16

Ratings and scores

Ability

Importance

Handicap

25 items

		A		
		B		

Composite score
Part A

Composite score
Part B

Composite score
Total

Research objective

To determine the **Reliability** of the MIDVAQ:

- Interjudge
- Test-retest
 - ▶ Items and composite scores
- Part A parallel versions (Ability ratings)

Method

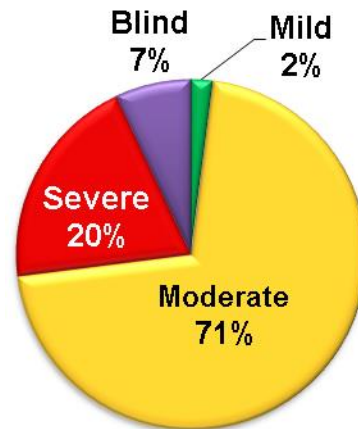
- Experimenters: 3 senior LVRS
- MIDVAQ administration
 - ▶ **At home**, with personal visual and non-visual aids
 - ▶ **Twice**, 2-week interval (test – retest)
 - ▶ **T1: parallel rating** by a 2nd examiner (interjudge)
- Part A material
 - ▶ Half the sample evaluated with V1 at T1, and V2 at T2
 - ▶ Reversed order for the other half



Subjects

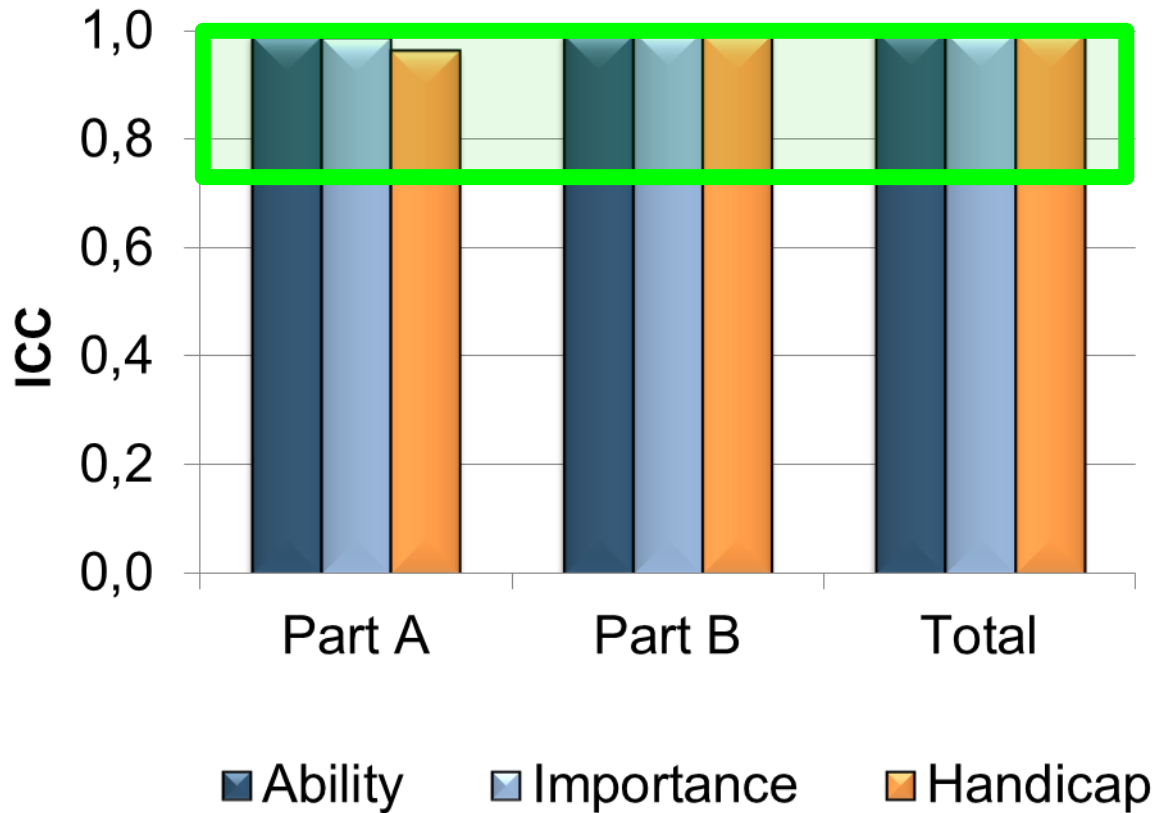
- N = 100 (52 F, 48 M), 71 ± 14 yrs old (range 33 - 95)

- Visual impairment:



- No active rehabilitation services episode
- Independent living in community
- No significant physical or cognitive impairment

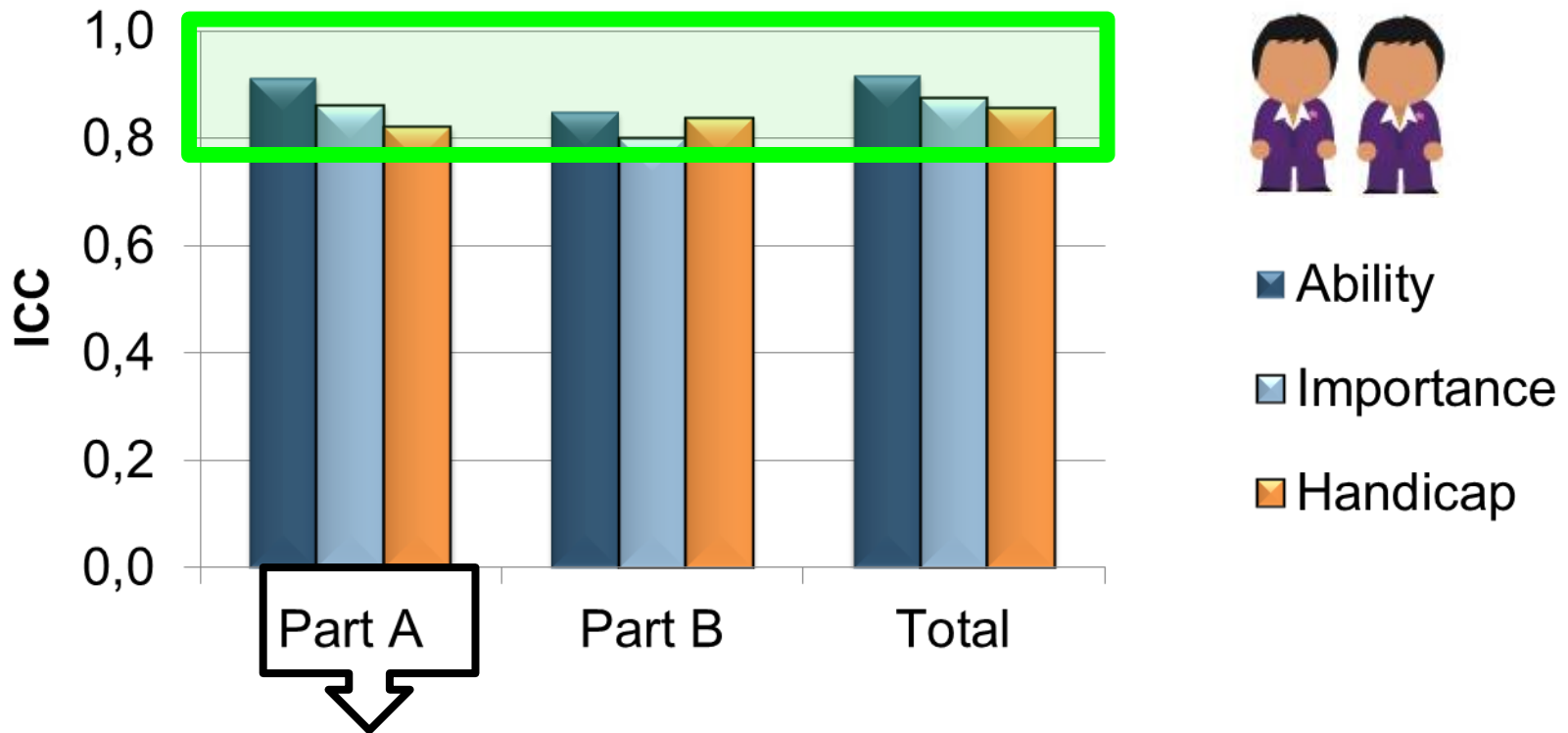
Interjudge reliability



N = 35

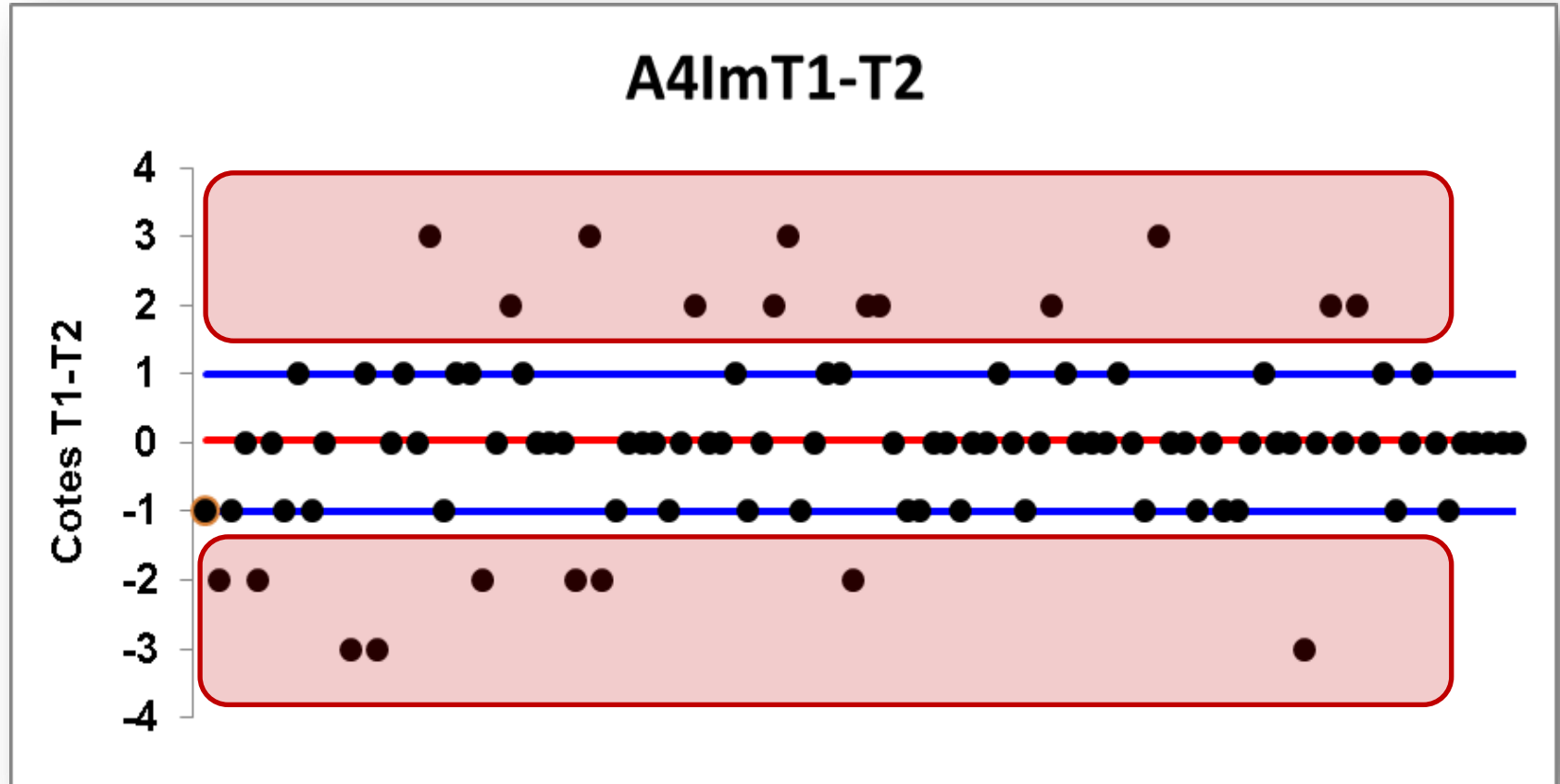
3 pairs of experimenters
11-12 subjects / pair

Test-retest and part A parallel versions reliability

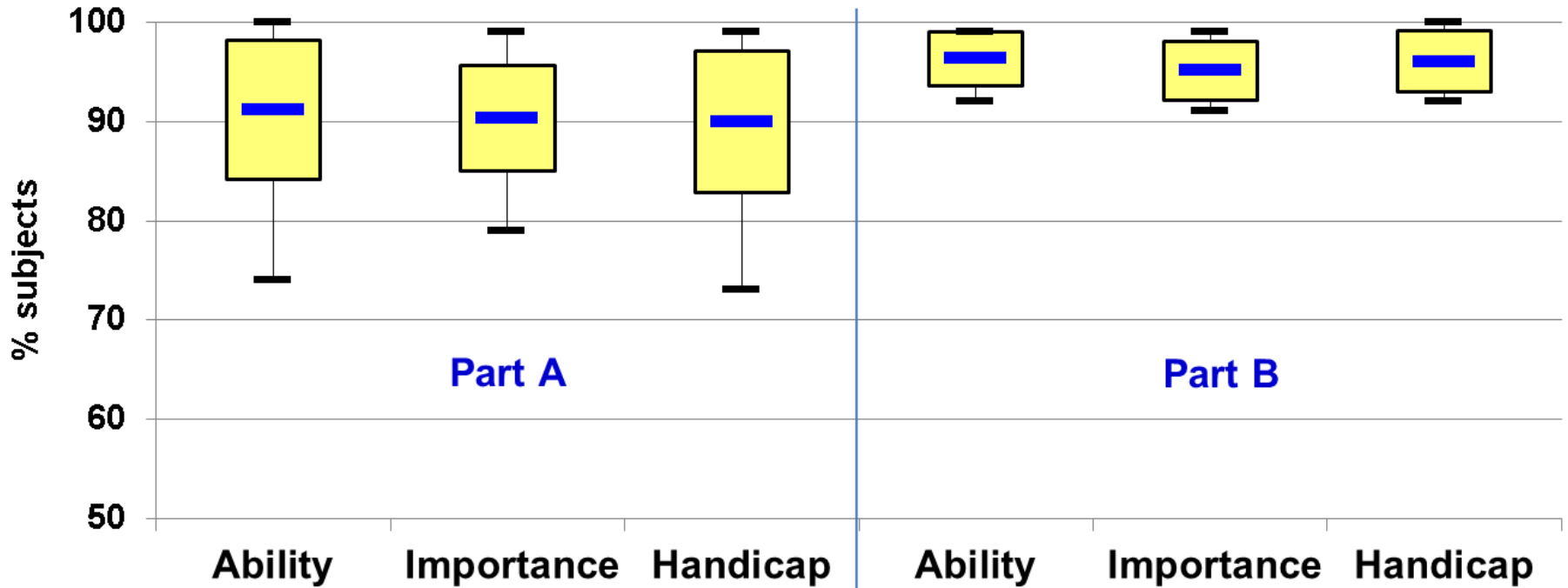


Parallel versions reliability:
identical results

Items test-retest: minimal clinical acceptable difference (MCDI)



Items test-retest: % subjects within MCDI



Research Limits

- Small sample size
- Part A: experimental protocol did not include some common personal accessible information technology

Conclusion

- Most of the MIDVAQ item ratings and composite scores show excellent to perfect interjudge, test-retest and parallel versions reliability, which are essential qualities for any assessment tool.
- Some items will need to be revised and modified, for metric quality improvement.

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INLB collaborators

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- Catherine Houtekier, Research Officer
- Sylvie Cantin, Research Officer

Research assistants

- Kassandre Montisci, Fanie Chainey and Wanseo Kim

Scientific advice

- Walter Wittich, Ph. D.



Josée Duquette, M. Sc.
CISSS de la Montérégie-Centre
Installation - Institut Nazareth et Louis-Braille
CRIR- INLB Research center
1111, rue St-Charles ouest
Longueuil (QC) Canada J4K 5G4

☎ 450 463-1710, ext 392; 1 800 361-7063, ext 392

💻 josee.duquette.inlb@ssss.gouv.qc.ca

