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COMMUNICATIVE DEVELOPMENT INVENTORIES TO ADDITIONAL LANGUAGES .... 85
Introduction

The MacArthur-Bates Communicative Development Inventory (CDI) Advisory Board (listed below) is gratified by the research and clinical usefulness of the CDI instruments, and the interest of language researchers and clinicians around the world in developing adaptations for their language. In some languages, such as English, the CDI has added a tool with distinctive advantages for certain purposes; in a number of other languages, it has been the first standardized and normed measure of language development, providing a foundation for future work.

In February, 2010, the CDI Advisory Board initiated a project to survey all known, authorized CDI adaptations, to determine their status and make the information available broadly. This report provides a summary of that survey, as of July, 2011. It will also be made available on the CDI website, http://www.sci.sdsu.edu/cdi. The report also includes information for individuals and teams interested in initiating a new CDI adaptation (see pp. 129-133). Corrections and additions to this report should be sent to Philip Dale, at dalep@unm.edu.

We strongly recommend that anyone considering the development of an adaptation of the CDI acquire the CDI manual:

CDI Advisory Board

Larry Fenson, San Diego State University, Chair
Dorthe Bleses, University of Southern Denmark
Philip S. Dale, University of New Mexico
Donna Jackson-Maldonado, Universidad Autonoma de Queretaro
Virginia Marchman, Stanford University
Judy Reilly, San Diego State University
J. Steven Reznick, University of North Carolina
Donna J. Thal, San Diego State University and University of California, San Diego
Albanian

Person Preparing Report: Dr. Enkeleida Kapia and Dr. Enila Cenko
Date: December 22, 2010

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<tr>
<td>CDI:WG</td>
<td>Preliminary</td>
<td>No, not yet, with the exception of the research group</td>
<td>Not, not yet</td>
<td>No, we do not. We are in the process of conducting this research. We will have a manuscript ready sometime this coming year</td>
<td>No, there is not for the time being</td>
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<tr>
<td>CDI:WS</td>
<td>Preliminary</td>
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PLANS FOR FUTURE WORK

Both short form versions and CDI-III.

CONTACT INFO AND PUBLICATIONS

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American Sign Language

Person Preparing Report: Diane Anderson
Date: October 20, 2010

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<tr>
<td>CDI:WS</td>
<td>Version is final, norms are preliminary</td>
<td>Yes online</td>
<td>Yes, preliminary norms; when family takes the test online, we score it up and return it to them</td>
<td>Yes, Anderson, D. &amp; Reilly, J. (2002). The MacArthur Communicative Development Inventory: Normative Data for American Sign Language, Journal of Deaf Studies and Deaf Education, 7, 83-106.</td>
<td>No manual available</td>
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PLANS FOR FUTURE WORK

We are currently developing the grammar section of the CDI for ASL. This is a visual test presenting parents with two signed sentences, one grammatical, one ungrammatical. Parents are asked to pick the sentence that most closely resembles their child’s signing. We are currently piloting this test online.

CONTACT INFO AND PUBLICATIONS

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Person Preparing Report: Fatima Basaffar

Date: November 11, 2010

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<tr>
<td>CDI:WS</td>
<td>Versions are preliminary</td>
<td>Yes, under request</td>
<td>Not yet</td>
<td>In process</td>
<td>In process</td>
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<tr>
<td>CDI:WG</td>
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PLANS FOR FUTURE WORK

We are planning to come up with different forms for the different dialects of Arabic.

CONTACT INFO AND PUBLICATIONS

Dr. Fatima Basafar
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Austronesian Languages in New Zealand: Maori, Samoan, and Tongan

Person Preparing Report: Elaine Reese  
Date: December 9, 2010

We requested permission to adapt the NZ CDI: Words and Sentences into Maori, Samoan, Tongan, and Hindi for use at age 2 in the Growing Up in New Zealand study. We have now completed a preliminary version of the Maori, Samoan, and Tongan checklists to use with our pilot group of N = 200. All versions that we have created are based on the CDI II: Short Form A. The Maori version is more or less a direct translation, but to create the Samoan and Tongan versions, we worked from free-play language samples that we have collected with 21 and 26-month old children from another study. We were unable in the end to create a Hindi version that was satisfactory.

CONTACT INFO AND PUBLICATIONS

Dr. Peter Keegan, University of Auckland (Maori)  
Dr. Elaine Ballard, University of Auckland (Samoan, Tongan, and a NZ Chinese version of Twila Tardif's adaptation)  
Dr. Mele Taumoepeau, University of Otago (Samoan and Tongan)

I also adapted my NZ CDI:II long form into a short form with the help of Dr. Stephanie Stokes and Dr. Tom Klee at the University of Canterbury.

After we get the pilot data in 2011, we will review the psychometrics of the checklists and revise accordingly if necessary. (For the Maori, Samoan, and Tongan versions, we have asked parents an open-ended question about additional words that their children are using that might be incorporated into the final checklist.)
### Forms Developed

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<tr>
<td>CDI:WG</td>
<td>Definitive versions and short versions</td>
<td>Yes, it was published in Basque (Barreña ET AL. 2008) The publications of the short versions are in progress (submitted)</td>
<td>Yes. The norms, percentiles, punctuations and instructions for interpretation were included in Barreña ET AL. 2008. The publication of the norm for the short version is in progress (submitted) but seems to be more difficult.</td>
<td>Convergent validity and correlations were analyzed. Correlation between KGNZ-1 &amp; Batelle test revealed the following results: (Comprehension ( r = 0.87; p &lt; 0.001 )) &amp; Production ( (r = 0.917; p &lt; 0.001) ). Prediction validity was calculated comparing results of KGNZ-1 and KGNZ-2 date obtained from the same children in a 6 month interval. These are the correlation values obtained: ( (r = 0.61; p &lt; 0.001) ) for vocabulary comprehension (KGNZ-1) and vocabulary production (KGNZ-2); ( (r = 0.45; p &lt; 0.01) ) for vocabulary production in KGNZ-1 &amp; vocabulary production KGNZ-2. ( (r = 0.30; p &lt; 0.01) ) vocabulary comprehension in KGNZ-1 AND morphosyntactic complexity in KGNZ-2. ( (r = 0.43; p &lt; 0.001) ) vocabulary production in KGNZ-1 and morphosyntactic complexity in KGNZ-2. Convergent validity of short versions was also calculated. Correlation between KGNZ-1 long and KGNZ-1 short were attested in vocabulary comprehension ( (r = 0.76; p&lt;0.001) ) and vocabulary production ( (r = 0.77; p&lt;0.001) ).</td>
<td>Barreña, A., García, I., Ezeizabarrena, M. J., Almgren, M., Arratibel, N., Olano, I., Barnes, J., Petuya, A. &amp; Colina, A. (2008). <em>MacArthur-Bates Komunikazio Garapena Neurtzeko Zerrenda. Euskarara egokitua</em>. Erabiltzaileentzako gida eta eskuliburu teknikoa. Bilbao: Udako Euskal Unibertsitatea. ISBN: 978-84-8438-177-8. It can be bought in: <a href="http://www.ueu.org/denda/ikusi/MacArthur-Bates%2BKomunikazio%2BGarapena%2BNeurtzeko%2BZerrenda">http://www.ueu.org/denda/ikusi/MacArthur-Bates%2BKomunikazio%2BGarapena%2BNeurtzeko%2BZerrenda</a> The short version has not been published yet.</td>
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<tr>
<td>CDI:WS</td>
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### Plans for Future Work
We are involved in the adapted version, in the development of the KGNZ-3. Once could be the definitive one. Data collection for norming punctuations and validity studies in progress.

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Andoni Barrena
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Email: barrena.andoni@gmail.com


PLANS FOR FUTURE WORK

The current instrument is appropriate for children between 9-22 months of age. We have also developed a revised version extended for children up to 36 months of age, but it is not completed yet.

CONTACT INFO AND PUBLICATIONS

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Email: sallymegregor@yahoo.com

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Scientist, Clinical Sciences Division  
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Project in progress.

Contacts have been made with institutions in other Brazilian states in order to make possible the contact with deaf children in inclusive or specialized schools, only a couple of which have responded. As most schools are located in the south region of the country, research work trips have already been scheduled for this year’s second semester (particularly, in São Paulo, Rio Grande do Sul and Minas Gerais).

For the time being, we are reviewing the literature and the materials available on CDI’s adaptation to ASL and British Sign Language, attempting a comparison with the BP adaptation (for cultural reasons), and starting to construct a tentative form to start the validation study in the second semester. We still don’t know whether we will be able to use both the Words and Gestures and the Words and Sentences forms, as we are having much difficulty in finding subjects to test. The problem with the deaf population is that around 96% of deaf subjects are born in hearing families and most of them only have access to a signed language much later in life – generally when they enter school (around six or seven year of age).

ELIZABETH REIS TEIXEIRA’s Curriculum in the LATTES (Brazilian Government Research Agency) database: http://lattes.cnpq.br/6177760381095851

Nanci Araujo Bento’s Curriculum in the LATTES database:
http://lattes.cnpq.br/2210608216017820

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Tel: (0115571) 343-5246
ereist.teixeira@gmail.com
British Sign Language

Person Preparing Report: Dr. Bencie Woll
Date: February 9, 2011

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<td>CDI:WG</td>
<td>Final</td>
<td>At present, available on request. We plan to make it more widely available, together with a user’s manual, by the end of the year.</td>
<td>Norms for native signing deaf children have been published (see Woolfe T, Herman R, Roy P &amp; Woll B (2010) Early Lexical Development in Native Signers: A BSL Adaptation of the MacArthur-Bates CDI. <em>Journal of Child Psychology and Psychiatry</em> 51(3) 322-331.</td>
<td>We are currently analysing data from hearing native signers (hearing children with deaf parents) and deaf children with hearing parents</td>
<td>(not yet available but planned for later this year)</td>
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**PLANS FOR FUTURE WORK**

Our current work is focused on developing norms for other groups of children using BSL

**CONTACT INFO AND PUBLICATIONS**

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PLANS FOR FUTURE WORK

We do not have plans for further CDI work.

CONTACT INFO AND PUBLICATIONS

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Dr. Miquel Serra
University of Barcelona (Spain)
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At present we have one publication with data obtained from Catalan CDI-II adaptation.

Chichewa/Nyanja and Chiyao (Yao)

Person Preparing Report: Elizabeth Prado, PhD
Date: May 5, 2011

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<td>CDI:WG</td>
<td>We have developed a tool designed to assess language development in children age 18 months in Malawi. We developed the tool to evaluate the effect of nutritional supplementation on children’s language development. The interview consists of 100 vocabulary items, 6 gesture items, and 5 grammatical items. Final Version.</td>
<td>Not yet</td>
<td>No, we do not have norms. Since we are only testing children at age 18 months, we do not expect to develop norms.</td>
<td>We plan to validate the tool against transcripts of child speech recordings. This should be completed in the next 6 months</td>
<td>Yes, there is a manual that is also still under development</td>
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**PLANS FOR FUTURE WORK**

Currently no plans

**CONTACT INFO AND PUBLICATIONS**

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iLiNS project website: http://ilins.org/
**Chinese: Cantonese (Hong Kong), Mandarin (Beijing)**

**Person Preparing Report:** Twila Tardif  
**Date:** February 28, 2011

|-----------------|--------|----------------------------|--------|-------------------|--------|
| CDI:WG          | Final  | The forms and complete manual are available for $100 and can be ordered from our website, unlimited copies can be printed from each of the forms (SF, LF, Infant, Toddler in 2 languages: Cantonese and Mandarin: http://www.umich.edu/~chgd/programs/cad/CCDI_GuideManual.html | YES, same manual | Much of this is available in the Manual and we have ongoing papers in press, as well as three publications that have already come out:  
| CDI:WS          |        |                            |        |                   |        |

**PLANS FOR FUTURE WORK**

Shortform versions (W&G plus W&S) have been developed for both Cantonese and Mandarin and are published in the Manual cited above.

**CONTACT INFO AND PUBLICATIONS**

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Tel: (734) 76 4-2443


Chinese: Mandarin (Taiwan)

**Person Preparing Report:** Huei-Mei Liu  
**Date:** October 6, 2010

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<tr>
<th>Forms Developed</th>
<th>Status I consider the present forms as final versions</th>
<th>Available for Distribution Published by The Profile of Psychological Publishing Co., Ltd. In Taiwan</th>
<th>Norms? The month-to-month norm data were collected from a stratified random sample of 2,654 8-36 month-old children in Taiwan.</th>
<th>Validity Evidence The information of the validity of the measures were described in a published journal article in Formosa Journal of Mental Health. Liu, H. – M. &amp; Tsao, F. – M. (2010 inpress). The Standardization and Application of Mandarin-Chinese Communicative Developmental Inventory for Infants and Toddlers. Formosa Journal of Mental Health, 23(4), xx-xx.</th>
<th>Manual? There is a manual with the inventories. They were published by The Profile of Psychological Publishing Co., Ltd. In Taiwan.</th>
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**PLANS FOR FUTURE WORK**

I am interested in developing the shortform versions, and would be glad to learn more from it.

**CONTACT INFO AND PUBLICATIONS**

**Contact:** Huei-Mei Liu,  
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**Publications:**


Website of the Publisher:  
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Person Preparing Report: Dr. Kleanthes Grohmann and Dr. Maria Kambanaros
Date: October 29, 2011

Research and Development underway

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Dr. Maria Kambanaros
Cyprus Acquisition Team
Email: kambanaros@gmail.com
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<td>CDI:WG</td>
<td>Final Versions</td>
<td>Yes, it is available to others on the internet in the CDI CLEX database (= Cross Linguistic Lexical Norms): <a href="http://www.cdi-clex.org">http://www.cdi-clex.org</a>. All results for the Danish CDI:WG study are based on a total of 2398 Danish children in the age of 8 to 20 months. The Danish CDI:WS study are based on a total of 3714 Danish children in the age of 16 to 36 months. Also see the norms in the Danish manual: Bleses, D., Vach, W., Wehberg, S., Faber, K. &amp; Madsen. T. O. (2007). <em>Tidlig kommunikativ udvikling. Et værktøj til beskrivelse af sprogtilegning baseret på CDI-forældrarapportundersøgelser af danske normalhørende og hørehæmmede børn.</em> [University Press of Southern Denmark]. Also see some of the norms in the article by: Bleses, D., Vach, W., Slott, M., Wehberg, S., Thomsen, P., Madsen, T. &amp; Basbøll, H. (2008). The Danish Communicative Development Inventories: validity and main developmental trends. <em>Journal of Child Language, 35,</em> 651-669. A citation pp. 660-661: “Based on comparisons between spontaneous speech data and CDI data we were able to conclude that: “the investigations of the validity and reliability of the Danish CDI instrument suggest that: (a) most common words and a substantial part of the less common words used spontaneously by Danish children are included in the vocabulary lists; (b) the vocabulary development of Danish children as measured by the CDI seems to correlate adequately with the growth of word types in spontaneous speech as measured in four Danish children’s spontaneous speech productions; and (c) values of internal consistency of different scales of the Danish CDI were found to be satisfactory. We</td>
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<td>CDI:WS</td>
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<td>Yes, there are norms for the Danish instrument on the internet in the CDI CLEX database (= Cross Linguistic Lexical Norms): <a href="http://www.cdi-clex.org">http://www.cdi-clex.org</a>. All results for the Danish CDI:WG study are based on a total of 2398 Danish children in the age of 8 to 20 months. The Danish CDI:WS study are based on a total of 3714 Danish children in the age of 16 to 36 months. Also see the norms in the Danish manual: Bleses, D., Vach, W., Wehberg, S., Faber, K. &amp; Madsen. T. O. (2007). <em>Tidlig kommunikativ udvikling. Et værktøj til beskrivelse af sprogtilegning baseret på CDI-forældrarapportundersøgelser af danske normalhørende og hørehæmmede børn.</em> [University Press of Southern Denmark]. Also see some of the norms in the article by: Bleses, D., Vach, W., Slott, M., Wehberg, S., Thomsen, P., Madsen, T. &amp; Basbøll, H. (2008). The Danish Communicative Development Inventories: validity and main developmental trends. <em>Journal of Child Language, 35,</em> 651-669. A citation pp. 660-661: “Based on comparisons between spontaneous speech data and CDI data we were able to conclude that: “the investigations of the validity and reliability of the Danish CDI instrument suggest that: (a) most common words and a substantial part of the less common words used spontaneously by Danish children are included in the vocabulary lists; (b) the vocabulary development of Danish children as measured by the CDI seems to correlate adequately with the growth of word types in spontaneous speech as measured in four Danish children’s spontaneous speech productions; and (c) values of internal consistency of different scales of the Danish CDI were found to be satisfactory. We</td>
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**Danish**

**Person Preparing Report:** Christina Andersen  
**Date:** November 12, 2010
PLANS FOR FUTURE WORK

We are working on a CDI III version for Danish, Swedish and American English children in the age of 3 to 4 years of age. We have also made a CDI short form that is part of the Danish screening tool SI3. See the papers below:

Early Online, 1-20. Informa Healthcare.


CONTACT INFO AND PUBLICATIONS

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TEL.: +45 6550 3346
FAX: +45 6550 3180


URL to Center for Child Language, University of Southern Denmark: http://www.sdu.dk/cfb
**Person Preparing Report:** Inge Zink  
**Date:** November 15, 2010

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<tr>
<td>CDI:WG</td>
<td>Final versions</td>
<td>Yes: Zink I. &amp; Lejaegere M. (2002) <em>N-CDIs: Lijsten voor Communicatieve Ontwikkeling.</em> Acco, Leuven/Leusden. We have sent the manual to Larry Fenson in 2002. This publication (manual) contains both lists (Words and Gestures and Words and Sentences). CDI III manual is published: Zink I. &amp; Lejaegere M. (2007) <em>N-CDI 3. Aanpassing en hernormering van de MacArthur CDI: Level III van Dale et al. (2000), Acco, Leuven (Belgium)/Leusden (Netherlands).</em></td>
<td>Norms are published in the manuals for all CDI’s.</td>
<td>In the manual for CDI:WS AND WG we mention validity studies (concurrent validity and predictive validity). CDI III- We calculated correlations between the N-CDI 3 and de the Dutch version of the Peabody Picture Vocabulary Test (PPVT-III-NL) and between de N-CDI 3 and subtest productive vocabulary from the Schlichting Test voor Taalproductie (Dutch Language Test). The correlations are high and significant. So we can conclude that there is a correlation between the different parts of the CDI 3 and vocabulary tests (receptive and expressive).</td>
<td>Yes there is a manual for the instrument: Zink I. &amp; Lejaegere M. (2002) <em>N-CDIs: Lijsten voor Communicatieve Ontwikkeling.</em> Acco, Leuven/Leusden. We have sent the manual to Larry Fenson in 2002. CDI III- Yes there is a manual for the instrument. I think we have sent it to Larry Fenson in 2007. I’m not sure. If you didn’t get it, we can always send you a copy.</td>
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<td>CDI:WS</td>
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<tr>
<td>CDI III</td>
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**PLANS FOR FUTURE WORK**

We developed short forms (N-CDI 1 and N-CDI 2: Zink & Lejaegere, 2003).

We developed a version for children with Intellectual Disabilities who use manual signs. This version is not published but we published about this research in Journal of Speech, Language and Hearing Research: Joke Vandereet, Bea Maes, Dirk Lembrechts, and Inge Zink. Predicting Expressive Vocabulary Acquisition in Children with Intellectual Disabilities: A 2-year Longitudinal Study  

**CONTACT INFO AND PUBLICATIONS**
Inge Zink
O&N2, Herestraat 49 bus 721
B-3000 Leuven, Belgium
Email: inge.zink@med.kuleuven.be


English (Australian)

[Information from a previous update; unable to obtain current information]

Denis Burnham
Denis.Burnham@uws.edu.au
English (British)

**Person Preparing Report:** Katie Alcock  
**Date:** December 13, 2011

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<tr>
<td>CDI:WG</td>
<td>Several Preliminary versions are available (Lincoln and Oxford)</td>
<td>The Oxford and Lincoln versions are available via the internet (links below). Neither of these include gestures but a pilot gesture questionnaire is available from Katie Alcock via email. <a href="http://www.lincoln.ac.uk/psychology/babylab.htm">http://www.lincoln.ac.uk/psychology/babylab.htm</a> <a href="http://babylab.psy.ox.ac.uk/research/oxford-cdi">http://babylab.psy.ox.ac.uk/research/oxford-cdi</a></td>
<td>No, but there is an online data base available into which we entered the anonymised parental questionnaire data.</td>
<td>A pilot study. We tested children at 9, 12, 18 an 24 months and found – in general – that Intermodal Preferential Looking results coincide with CDIs estimates from parents.</td>
<td>No Manual</td>
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<tr>
<td>CDI:WS</td>
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**PLANS FOR FUTURE WORK**

Yes, we are creating a UK short form with 100 items together with the CDI:Words & Gestures, and are looking towards standardising the CDI:Words & Sentences as well as the CDI III for the UK.

**CONTACT INFO AND PUBLICATIONS**

The links are not really ready for people to download CDIs or data from since the finalized versions are not yet completed.

Team consists of Caroline Rowland, Kerstin Meints and Katie Alcock

Katie Alcock  
Email: k.j.alcock@lancaster.ac.uk
**English (New Zealand)**

**Person Preparing Report:** Elaine Reese  
**Date:** April 11, 2011

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<tr>
<td>CDI:WS</td>
<td>Final</td>
<td>Yes, I email it upon request</td>
<td>No, but Stephanie Stokes and Tom Klee at the University of Canterbury would like to collaborate with me in developing norms for the NZ CDI: II.</td>
<td>Reese, E., &amp; Read, S. (2000). Predictive validity of the New Zealand MacArthur Communicative Development Inventory: Words and Sentences. <em>Journal of Child Language</em>, 27, 255-266.</td>
<td>No</td>
</tr>
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</table>

**PLANS FOR FUTURE WORK**

We have developed a short form of the NZ CDI:II based on our latest adaptation. We have received permission to use this adapted short form with 6700 families in the Growing Up in NZ study at age 2. As mentioned above, Stephanie Stokes and Tom Klee at the University of Canterbury have discussed a possible norming study of the CDI: II long form, for which they have invited me to collaborate.

**CONTACT INFO AND PUBLICATIONS**

Elaine Reese, Ph.D.  
University of Otago  
Department of Psychology  
P.O. Box 56  
Dunedin, New Zealand  
Tel: 64-3-479-9016  
Fax: 64-3-479-8335  
Email: ereese@psy.otago.ac.nz


http://psy.otago.ac.nz/staff/reese.html
Estonian

**Persons Preparing Report:** Tiia Tulviste & Astra Schults  
**Date:** March 10, 2011

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<tr>
<td>CDI:WG</td>
<td>Final</td>
<td>Yes, if they ask it from us</td>
<td>We have the norms</td>
<td>No, but there were statistically significant correlations between the results of CDI and the size of children’s vocabulary in real-life mother-child interactions (we used CHILDES).</td>
<td>No</td>
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<tr>
<td>CDI:WS</td>
<td>Preliminary. Changes are needed in the grammar part (E. Complexity) as Estonian grammar differs much from English grammar.</td>
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**PLANS FOR FUTURE WORK**

Yes.

**CONTACT INFO AND PUBLICATIONS**

Tiia Tulviste  
Email: tiia.tulviste@ut.ee


Finnish (Short)

Person Preparing Report: Dr. Suvi Stolt
Date: January 28, 2011

I have received an authorization from the CDI Advisory Board to translate and adapt the short form versions of the CDI in Finnish, and to accomplish the norming study. At the moment (December 2010), the translation / adaptation process of the short form inventories is nearly finished. The ethical committee of the University of Turku has given its’ approval for the research plan in December 2010. The data collection will begin in spring 2011

CONTACT INFO AND PUBLICATIONS

Dr. Suvi Stolt
University of Turku
Dept. of Social Sciences and Philosophy, Logopedics
Assistentinkatu 7, Publicum
20014 University of Turku
Finland
Email: suvsto@utu.fi
**Finnish (Long Form)**

**Person Preparing Report:** Paula Lyytinen  
**Date:** October 30, 2010

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<tr>
<td>CDI:WG CDI:WS</td>
<td>The present versions are final</td>
<td>Inventories are available freely via net from Niilo Mäki Institute (<a href="http://www.nmi.fi/en/">www.nmi.fi/en/</a>) ie. a nonprofit organization mediating services for professionals supporting children with neurodevelopmental problems; access from: <a href="http://www.nmi.fi/julkaisutilaus.htm">www.nmi.fi/julkaisutilaus.htm</a> the Finnish title of the assessment tool is: Varhaisen kommunikaation ja kielen kehityksen arviointimenetelmä</td>
<td>Yes, there are norms which are available from the given address</td>
<td>Yes, please, have a look of the appended updated list of relevant publications</td>
<td>Yes, available from the given address</td>
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**PLANS FOR FUTURE WORK**

No plans now.

**CONTACT INFO AND PUBLICATIONS**

Paula Lyytinen  
Dept. of Psychology  
University of Jyväskylä  
P.O. Box 35  
SF-40351, Jyväskylä Finland  
Tel: +358-41-601 211  
paula.lyytinen@psyka.jyu.fi


French (Canadian)

Person Preparing Report: Natacha Trudeau
Date: November 4, 2011

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<tr>
<td>CDI:WG</td>
<td>Final versions</td>
<td>It is available on the Université de Montréal website, at the following address: <a href="http://coder-eoa.eoa.umontreal.ca/fmi/xsl/trudeau_N_outil_eval/addrecord.xsl?-view">http://coder-eoa.eoa.umontreal.ca/fmi/xsl/trudeau_N_outil_eval/addrecord.xsl?-view</a> People are asked to provide some contact information and can then access the questionnaire.</td>
<td>Yes. Norms were gathered on a sample of 1300+ children. They are available through the same website.</td>
<td>Yes. Concurrent validity: We correlated the main scores on the Inventories to related measures derived from freplay samples in a group of children from four age groups (8-10, 13-15, 19-21, 26-28 months). The correlations were moderate to very strong for all verbal measures. They were lower (but still significant) for gestures.</td>
<td>Yes. At the same address as the questionnaires and norms. The manual also contains the detailed reliability results.</td>
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<td>CDI:WS</td>
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**PLANS FOR FUTURE WORK**

The provincial government would like to use short forms (about 25 words) to follow language development as a health marker between 18 and 30 months of age. Discussions are in the early stages for this initiative.

There are short forms for the two inventories (also available on the website), but no norms or validity data. These are different from the (even shorter) form that the provincial government was hoping to develop, which is mentioned above.

**CONTACT INFO AND PUBLICATIONS**

Natacha Trudeau  
Faculté de médecine - École d'orthophonie et audiologie  
Université de Montréal  
CP6128, Succursale Centre-Ville, Montreal, QC, Canada H3C 3J7  
Télécopieur : 514-723-7116  
Téléphone : 514-374-1710 8608; 514-343-6111 1643  
Email: natacha.trudeau@umontreal.ca

Diane Poulin-Dubois  
Professor of Psychology  
Centre for Research in Human Development  
Concordia University  
7141 Sherbrooke Street West  
Montréal, Québec, Canada  
H4B 1R6
Recent publications about the adaptation and its norms/validity:


Recent publications using the adaptation:


French (European)

**Person Preparing Report:** Sophie Kern  
**Date:** October 14, 2010

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<td>CDI:WS</td>
<td>Final</td>
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<tr>
<td>CDI-III</td>
<td>Developing</td>
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**PLANS FOR FUTURE WORK**

We have developed three short forms (12, 18 and 24 months of age).  
There are available at http://www.editions-cigale.com/ressource/IFDC-8-30-mois-version-courte  

CDI-III in development.

**CONTACT INFO AND PUBLICATIONS**

Sophie Kern  
Chargée de recherches  
Laboratoire Dynamique du Langage (UMR5590)  
Institut des Sciences de l'Homme  
14, avenue Berthelot  
69363 Lyon cedex 07  
France

tel: (+33) 04-72-72-64-60  
fax: (+33) 04-72-72-65-90  
e-mail: sophie.kern@univ-lyon2.fr


Galician

Person Preparing Report: Miguel Pérez-Pereira
Date: October 11, 2010

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<td>CDI:WS</td>
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**PLANS FOR FUTURE WORK**

We have already completed the short form, and it will appear in the technical manual as well. We are collaborating with Judy Reilly in the development of a part to include in the CDI-III to assess narrative capacity of children.

**CONTACT INFO AND PUBLICATIONS**

Miguel Pérez-Pereira
Email: miguel.perez.pereira@usc.es
Department of Developmental Psychology.
Faculty of Psychology.
University of Santiago de Compostela
15782 Santiago de Compostela.
Spain

Most recent publications:


**Forms Developed**

| CDI:WS | Final. It would be good, however, in the long run, to collect data bringing the sample of the lowest parental education to the proportion corresponding more closely to the figures in the population census of Germany. |


| It was published in German in 2009 by Person Assessment: Szagun, G., Stumper, B. & Schramm, A.S. (2009). *Fragebogen zur frühkindlichen Sprachentwicklung (FRAKIS) und FRAKIS-K (Kurzform)*. Frankfurt: Pearson Assessment. | Yes, there are norms. They are published, see 2009 publication above. There are norms for the long FRAKIS and for the Short Form version FRAKIS-K. | Our instrument was validated (concurrent validity) on spontaneous speech data of 60 children of the total sample of 1240. Two hours spontaneous speech were collected and MLU and type frequency were correlated with the vocabulary and grammar measures of the questionnaire. The results are published in the FRAKIS publication, 2009, see above. There is excellent concurrent validity on all measures. | Yes, there is a Manual in the publication, see above. There are also guide lines on how to interpret the numerical values of the grammar scales (Inflectional Morphology scale and Sentence Complexity scale). FRAKIS gives relatively detailed information about a child’s grammatical level assessing the child’s performance in different inflectional paradigms. On the basis of this and the other information (vocabulary and sentence complexity) it is possible to draw up an individual |
PLANS FOR FUTURE WORK

Plans for:
- Questionnaire and norming study for 2;7 to 3;0 year old children
- Additional data collection with all instruments from parents of lower educational level

CONTACT INFO AND PUBLICATIONS

Professor Gisela Szagun
Developmental Science Research Department
Division of Psychology & Language
University College London
2 Wakefield Street
London WC1N 2PF
United Kingdom
Email: gisela.szagun@googlemail.com
Website: www.giselaszagun.com

Literature describing the spontaneous speech data the items in FRAKIS are based on
German (Austrian)

Person Preparing Report: Peter B Marschik, Ralf Vollmann, Christa Einspieler
Date: November 4, 2010

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<td>CDI:WG</td>
<td>Final</td>
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<td>Marschik, PB; Einspieler, C; Garzarolli, B; Prechtl, HF, 2007: Events at early development: are they associated with early word production and neurodevelopmental abilities at the preschool age? Early Hum Dev. 2007; 83(2): 107-114. CDI-III work in progress</td>
<td>No manual yet</td>
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<tr>
<td>CDI:WS</td>
<td>Final</td>
<td></td>
<td>Norms in progress</td>
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<tr>
<td>CDI-III</td>
<td>Preliminary</td>
<td>via personal contact (<a href="mailto:peter.marschik@medunigraz.at">peter.marschik@medunigraz.at</a>)</td>
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PLANS FOR FUTURE WORK

We are currently planning to submit an application for funding for a pre-doc position in order to continue with the norming procedures; we have also developed a short version for the ages 22-26 months and the routine pediatric assessment in Austria; it is currently under evaluation for implementation in this routine clinical assessment. Depending on the outcome of the evaluation, a norming study will be conducted.

CONTACT INFO AND PUBLICATIONS

Peter B Marschik
Institute of Physiology
Centre for Physiological Medicine
Medical University of Graz
Harrachgasse 21/5
A-8010 Graz, Austria
Tel:+43-(0)316-380-7629
Fax:+43-(0)316-380-9630
Email: peter.marschik@medunigraz.at

Marschik, PB; Einspieler, C; Garzarolli, B; Prechtl, HF, 2007: Events at early development: are they associated with early word production and neurodevelopmental abilities at the preschool age? Early Hum Dev. 2007; 83(2): 107-114.


Marschik, PB; Dibiasi Pansy, J; Vollmann, R; Einspieler, C, 2009: Entwicklungsaufläufigkeiten bei transienten und konsistenten Late Talkers. Kinderärztliche Praxis. 2009; (80): 337-342. (Article in German)
Our homepage is currently under construction but information on the Austrian-CDI will be available soon on http://www.medunigraz.at/physiologie/dpdn
Greek

**Person Preparing Report:** Ursula Stephany  
**Date:** November 18, 2010

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<tr>
<td>CDI:WS</td>
<td>Preliminary</td>
<td>No</td>
<td>Not yet</td>
<td>Not yet</td>
<td>No</td>
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**PLANS FOR FUTURE WORK**

No present plans

**CONTACT INFO AND PUBLICATIONS**

Prof. Dr. Dimitra Kati, University of Athens: dimkati@ecd.uoa.gr

Prof. Dr. Ursula Stephany  
Email: Stephany@uni-koeln.de  
Dept. of Linguistics, General Linguistics  
University of Cologne, Gemany
**Hebrew**

**Person Preparing Report:** Esther Dromi  
**Date:** December 19, 2010

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<tr>
<td>CDI:WG</td>
<td>Final, not commercial use</td>
<td>Researchers and Students get a PDF file from me in email (for both CDIs)</td>
<td>No Norms. Statistical Analyses on a sample of 180 children is available in an unpublished MA thesis.</td>
<td>NO</td>
<td>Not yet. Hope to write one manual for WG and for WS and to publish it as a booklet</td>
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**PLANS FOR FUTURE WORK**

I would like to develop a short form and also eager to find resources/funds to create a www version that people will be able to use via internet. I hope that in the future I will have a graduate student who will choose to work on that project including the publication of a manual in Hebrew.

**CONTACT INFO AND PUBLICATIONS**

Esther Dromi  
School of Education  
Tel-Aviv University  
Ramat Aviv, Tel-Aviv  
Israel, 69 979  
Fax: 972-3-648-8571  
Email: dromi@post.tau.ac.il
### Hungarian

**Person Preparing Report:** Bence Kas  
**Date:** November 20, 2010

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<tr>
<td>CDI:WG</td>
<td>Final Versions</td>
<td>It is not yet available to the public since norming is still in progress, and we plan to publish the instrument together with the norms. Is this the common way with the CDI or do people distribute the instruments without norms?</td>
<td>Norming is in progress, we have collected and processed cross-sectional data from 54 children and are running a longitudinal research with 30 children measured systematically by 2 months.</td>
<td>No, we only measured the validity of some parts in the Words &amp; Sentences form.</td>
<td>No, we are only going to write one for the future publication of the instrument together with the data.</td>
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<td>CDI:WS</td>
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### PLANS FOR FUTURE WORK

Yes, we are planning to produce short form of the Words & Sentences for more effective screening purposes. We think that we will be able to select the items for the short form on the base of the data collected with the full version.

### CONTACT INFO AND PUBLICATIONS

Bence Kas  
Eotvos Lorand University  
Department of Phonetics and Logopedics  
Ecseri út 3  
1097 Budapest, Hungary  
email: benkas@barczi.elte.hu
PLANS FOR FUTURE WORK

There is a short version, which contains only the vocabulary checklist and section II-E. I have considered revising the checklist and renorming it given that it is 18 years old and I may yet do so.

CONTACT INFO AND PUBLICATIONS

Elin Thordardottir, Ph.D.
Associate Professor
School of Communication Sciences and Disorders
Faculty of Medicine
McGill University
1266 Pine Avenue West
Montreal H3G 1A8
Quebec, Canada
phone: (514) 398-5356
fax: (514) 398-8123
Email: elin.thordardottir@mcgill.ca

Irish

**Person Preparing Report:** Ciara O’Toole  
**Date:** May 5th, 2011

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<tr>
<td>CDI: WS</td>
<td>Preliminary</td>
<td>Yes</td>
<td>No</td>
<td>O’Toole C &amp; Fletcher, P (2010). Validity of a parent report for Irish-speaking toddlers. <em>First Language</em> 30 (2) 199-217</td>
<td>There is currently no manual for the instrument</td>
</tr>
<tr>
<td>CDI: WG</td>
<td>Preliminary</td>
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**PLANS FOR FUTURE WORK**

Currently extending the norming of Words and Sentences, including children with a wider range of bilingual language exposure. Norming of Words and Gestures has also begun. There are currently no plans for an adaptation of the CDI III.

**CONTACT INFO AND PUBLICATIONS**

Dr. Ciara O'Toole  
Department of Speech & Hearing Sciences  
Brookfield Health Sciences Complex  
College Road  
University College Cork

Ph: +353 21 4901539  
Fax: +353 21 4901542  
Email: cotoole@ucc.ie


URL: http://publish.ucc.ie/researchprofiles/C025/cotoole
**Italian**

**Person Preparing Report:** Maria Cristina Caselli  
**Date:** November 29, 2010

|-----------------|--------|---------------------------|--------|-------------------|---------|

**PLANS FOR FUTURE WORK**

We have created and collected normative data on the Short Form both for the for Words & Gestures and Words & Sentences Forms (respectively for children aged 8-18 months and 18-36 months).  
Norms on the Gestures and Words short form are collected and they will be published next year.  
We are planning to develop the Italian Sign Language Form.

**CONTACT INFO AND PUBLICATIONS**

M.C. Caselli  
Institute of Cognitive Sciences and Technologies- CNR  
Via Nomentana 56, 00161 Rome, Italy  
Operator: +3906 44161511  
Tel: +3906 44161516  
Fax: +3906 44161513  
Email: cristina.caselli@istc.cnr.it

The websites are:  
http://www.istc.cnr.it/ladd/
**Japanese**

**Person Preparing Report**: Tamiko Ogura  
**Date**: October 1, 2010

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<tr>
<td>CDI:WG</td>
<td>Final Version JCDI</td>
<td>Yes. Kyoto International Social Welfare Exchange Center(Email: <a href="mailto:kiswec@mx2.wt.tiki.ne.jp">kiswec@mx2.wt.tiki.ne.jp</a>). For the order from overseas, Kinokuniya shoten (Email: <a href="mailto:nbiz@kinokuniya.com">nbiz@kinokuniya.com</a>)</td>
<td>Yes. Fitted Values for 8-18 months for JCDI:WG and 16-36 months for JCDI:WS are listed in the manual.</td>
<td>Yes. Ogura, T &amp;. Suetsugu, A. (2010). “Infant’s Receptive Vocabulary in a Preferential Looking Task and Parental Reports” .Paper presented at CLS. The results provided high external validity for the accuracy of receptive vocabulary of JCDIs and IPL task.</td>
<td>Yes. Kyoto International Social Welfare Exchange Center(Email: <a href="mailto:kiswec@mx2.wt.tiki.ne.jp">kiswec@mx2.wt.tiki.ne.jp</a>). For the order from overseas, the Kinokuniya shoten (E-Mail: <a href="mailto:nbiz@kinokuniya.com">nbiz@kinokuniya.com</a>).</td>
</tr>
<tr>
<td>CDI:WS</td>
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**PLANS FOR FUTURE WORK**

At present we do not have any plans to develop the short version of JCDIs.

**CONTACT INFO AND PUBLICATIONS**

Tamiko Ogura  
Department of Child Studies, Tezukayama University,  
3-1-3, Gakuen Minami, Nara, 631-8585, Japan,  
E-mail: oguratami@tezukayama-u.ac.jp  
Tel: +81-742-88-6016  
Fax: +81-742-88-6016


Kiswahili and Kigiriama

**Person Preparing Report:** Katie Alcock  
**Date:** October 6, 2010

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<tr>
<td>CDI: WG</td>
<td>Final version</td>
<td>For researchers working on Kenyan Coastal Kiswahili, or on Kigiriama, it is available by contacting me. For researchers working on other dialects of Kiswahili, or other related languages, contacting me can initiate a dialogue which will help the researcher decide if they wish to go through the appropriate steps to adapt the CDI.</td>
<td>No norms</td>
<td>Yes - this paper is in prep</td>
<td>The paper in prep will provide some instructions (though it will not be a full manual)</td>
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<tr>
<td>CDI: WS</td>
<td>Some changes would probably be necessary prior to standardization on the function words and the grammar questions.</td>
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**PLANS FOR FUTURE WORK**

We have one short form for the younger CDI and two, A and B, for the older CDI. Both include words only (not gestures, or grammar questions).

**CONTACT INFO AND PUBLICATIONS**

Katie Alcock  
Department of Psychology  
Lancaster University  
Fylde College  
Lancaster LA14YF  
Tel: (+44) (0) 1524 593833  
Fax: (+44) (0) 1524 593744  
Email: k.j.alcock@lancaster.ac.uk


Korean

Person Preparing Report: Soyeong Pae
Date: November 15, 2011

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<tr>
<td>CDI:WG</td>
<td>Final</td>
<td>Yes, contact spaehallym.ac.kr, <a href="mailto:kjkwak@snu.ac.kr">kjkwak@snu.ac.kr</a>, only for research purpose at this moment</td>
<td>Yes, there are norms, it will be available through the Korean Manual (in preparation)</td>
<td>Pae, S. (2003). Validity and reliability of the Korean adaptation of MCDI. <em>Korean Journal of Communication Disorders</em>, 8 (2), 1-14.</td>
<td>Not yet, it will be available in 2011</td>
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<tr>
<td>CDI:WS</td>
<td>Final</td>
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PLANS FOR FUTURE WORK

1. There are short versions of the M-B CDI-Korean.
2. Pae & Kwak are preparing the Korean manual.
3. We are preparing the concurrent & clinical validity study for the final version of M-B CDI-K.

CONTACT INFO AND PUBLICATIONS

Soyeong Pae
Professor
Dept. of Speech Pathology & Audiology
Hallym University
Hallym Daehak-gil 39, Chuncheon, Korea
Tel: 82-33-248-2214
E-mail: spaehallym.ac.kr

Maltese

Person Preparing Report: Daniela Gatt
Date: December 21, 2010

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<tr>
<td>Vocabulary checklist of the CDI:WS</td>
<td>Preliminary version</td>
<td>It is available on request.</td>
<td>Preliminary norms are cited in an unpublished PhD manuscript; publications are planned.</td>
<td>Caregiver report was employed as a component of a triangulation of methods to measure the expressive vocabulary of a cohort of 44 12- to 30-month-olds. The checklist measures showed high and significant correlations with measures obtained from spontaneous language sampling (r = .87, p (two-tailed) &lt; .01) and picture naming (r = .85, p (one-tailed) &lt; .01).</td>
<td>There is no manual available</td>
</tr>
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PLANS FOR FUTURE WORK

I would like to continue developing the Maltese adaptation further by collecting checklist data from larger cohorts of children so that a standardized tool may be developed.

CONTACT INFO AND PUBLICATIONS

Dr Daniela Gatt
Department of Communication Therapy
Faculty of Health Sciences
University of Malta
Tel.: +356 23401101
E-mail: daniela.gatt@um.edu.mt


Mozambique: Changana, Portuguese, Ronga

**Person Preparing Report:** Paul Vogt

**Date:** January 6, 2011

Project in progress

The Changana CDI is for use in a rural area, the Ronga/Portuguese one is for use in the urban area of Maputo. For both CDIs, we have carried out a norming survey among 430 (rural) and 300 (urban) subjects. The Ronga/Portuguese list was administered such that parents had to indicate if their infant knew the items on the list in either language irrespective of whether this was in Ronga or Portuguese, so there is – unfortunately – no detailed bilingual information available.

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<tr>
<td>CDI-short form:WG</td>
<td>Final Version</td>
<td>Not Yet</td>
<td>Not Yet</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

**PLANS FOR FUTURE WORK**

The norming study is currently being analyzed and will be reported in a technical report.

**CONTACT INFO AND PUBLICATIONS**

Dr Paul Vogt  
Tilburg center for Cognition and Communication  
Tilburg University  
P.O. Box 90153  
5000 LE Tilburg  
The Netherlands

Phone: +31134662594  
Email: p.a.vogt@uvt.nl
### Forms Developed

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<tr>
<td>Yes. I have started trialling the NZCDI with Sign version and it is going really well. Parents do not appear to find the new version any harder to complete than the verbal version and preliminary results suggest it gives a much clearer picture of the vocabulary of children exposed to signs as an aid to verbal acquisition.</td>
<td>I am working in collaboration with Stephanie Stokes, Tom Klee and the New Zealand Institute of Language, Brain and Behaviour at the University of Canterbury. I would like the proposed version to be available to NZ colleagues generally. I would also like to think that others working in a sign plus spoken language environment would consider adding a sign column to their local versions.</td>
<td>My understanding is that there are no norms for the NZ CDI version developed by Elaine Reese but that Stephanie and Tom are now starting to collect this data. My version simply adds the opportunity to respond to the vocabulary questions with a sign equivalent.</td>
<td>The version I am proposing uses the validity of Elaine Reese's NZ CDI. I simply need the sign option because my therapy service encourages parents to use signed vocabulary with children with complex disabilities. The children's true vocabulary size would not be evident without offering this option.</td>
<td>No. Uses the same assumptions as the standard US version</td>
<td></td>
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### PLANS FOR FUTURE WORK

No specific plans at the moment.

### CONTACT INFO AND PUBLICATIONS

The research activity of the Champion Centre is only just getting off the ground, so I would be interested in a link once that is a bit better established. However, if you would like to be linked to the New Zealand Institute of Language, Brain and Behaviour website, Tom Klee is the person to contact.

Dr. Susan Foster-Cohen  
Director, The Champion Centre & Adjunct Senior Fellow, University of Canterbury

The Champion Centre  
Private Bag 4708  
C/- Burwood Hospital  
Christchurch 8140  
New Zealand

Phone: +64 3 383 6867  
Fax: +64 3 383 6866
North Sami

**Person Preparing Report:** Kristine Bentzen  
**Date:** November 18, 2010

Adaptation Process starting in January 2011 and tentative ending date in July 2013.

Summary: North Sami is an indigenous language spoken mainly in Northern Norway, but also in Northern Sweden and Northern Finland. It is a Finno-Ugric language, related to Finnish. In Norway there are about 25,000 native speakers of the language, and various measures are currently being taken to revive it.

Planning to develop the CDI:WG and CDI:WS

**CONTACT INFO AND PUBLICATIONS**

Authors:  
Kristine Bentzen – Postdoctor at CASTL and the Department of Language and Linguistics at the University of Tromso, Norway.  
Email: kristine.bentzen@uit.no

Berit Anne Bals Baal – Currently finishing her PhD at the Department of Language and Linguistics at the University of Tromso, Norway.

Collaborators:  
Marit Westergaard – Professor in linguistics and the director at CASTL  
Mikael Svonni – Professor at the Department of Language and Linguistics  
Jorun Hoier – Professor at the Educational Department  
Professor Kristian Emil Kristoffersen and the group at the University of Oslo
Norwegian

**Person Preparing Report**: Kristian Emil Kristoffersen  
**Date**: September 30, 2010

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<tbody>
<tr>
<td>CDI: WG</td>
<td>Final Versions</td>
<td>At present, we distribute the forms to researchers and speech language therapists who contact us with a concrete plan for how they are going to use the forms. The plan is to publish the forms together with the manual when the final authorization is given.</td>
<td>There are norms, which will be made available in a scientific paper. The paper will be submitted in a few weeks from now.</td>
<td>Yes. This will also be made available through the paper mentioned in (c).</td>
<td>A manual is in progress, and will be made available, first on the project website, and later published together with the forms.</td>
</tr>
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</table>

**PLANS FOR FUTURE WORK**

We have plans for developing an adaptation into Norwegian of the CDI III  
We have plans for developing a short form, and hope to have a preliminary version ready before next summer.

**CONTACT INFO AND PUBLICATIONS**

**Contact**: Kristian Emil Kristoffersen  
Professor  
Research group in clinical linguistics and language acquisition  
Department of Linguistics and Scandinavian Studies  
University of Oslo  
E-mail: k.e.kristoffersen@iln.uio.no  
Phone: +4722857634

**Publications**:  

URL to website: http://www.hf.uio.no/iln/forskning/prosjekter/spraakutvikling/index.html
### Forms Developed

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<tbody>
<tr>
<td>CDI:WG</td>
<td>Yes, we have a preliminary version of this form which can be used in comparative studies and not diagnostic studies.</td>
<td>Yes, the researchers can request it by directly requesting it from me, Yalda Kazemi. It has been sent to several researchers before on their request.</td>
<td>CDI:WG - There are some norms in Persian-speaking children who live in Isfahan (a central city in Iran); BUT these norms have been obtained to find the psychometric measures of validity and reliability of the TRANSLATED form. So it needs to be improved later.</td>
<td>Yes, An article has been published in an Iranian Journal and I have attached it to this email. It has an English abstract at the end of the paper.</td>
<td>CDI:WG - It can be prepared on request.</td>
</tr>
<tr>
<td>CDI:WS</td>
<td>CDI:WS- (Preliminary) Not completely, just in Vocabulary section and not the sentence part. An article about the results of this study is being written and further studies are being planned</td>
<td>Yes, the researchers can request it by directly requesting it from me, Yalda Kazemi. It has been sent to several researchers before on their request.</td>
<td>CDI:WS no norms yet</td>
<td>Yes, An article has been published in an Iranian Journal and I have attached it to this email. It has an English abstract at the end of the paper.</td>
<td>CDI:WS- No</td>
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### PLANS FOR FUTURE WORK

Absolutely, Yes. Our team is working on the next phase of finding psychometric values of the lexicon part of Infant and toddler forms which is finding the norms in a larger population and in different cities around Iran.

### CONTACT INFO AND PUBLICATIONS

The Persian article has been attached and everyone who wishes to have the Persian version of CDI (P-CDI) can contact the team organiser, Yalda Kazemi at the following address:

Team Information:
Yalda Kazemi - SLP (PhD student at Newcastle University, the UK and Academic member at Isfahan University of Medical Sciences, Isfahan, IRAN) : yalda.kazemi@ncl.ac.uk or y.kazemi@hotmail.com

Nayereh Mehdipour - SLP (Lecturer at the University of Welfare and Rehabilitation Sciences, Tehran, IRAN)

Tahereh Sima Shirazi - SLP (Lecturer and PhD student at the University of Welfare and Rehabilitation Sciences, Tehran, IRAN)

Dr. Shahin Nematzadeh (Linguist) - Lecturer at Azahra University, Tehran, IRAN
Polish

[Information from a previous update; unable to obtain current information]

(Data for the norming study are being collected.)

Magdalena Smoczynska
Dept. of General and Indoeuropean Linguistics
Jagiellonian University
Al. Mickiewicza 9/11
31-120 Krakow, Poland
Tel: +(48) (12) 6336377 ext. 302
Fax: +(48) (12) 4226793
Home: +(48) (12) 6341037
Email: ULSMOCZY@Vela.filg.uj.edu.pl
Portuguese (Brazilian)

Person Preparing Report: Elizabeth Reis Teixeira
Date: May 12, 2011

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<tbody>
<tr>
<td>CDI:WG</td>
<td>CDI:WG</td>
<td>CDI:WG Even though we have not concluded the normative study, we have forwarded the form to some research groups in the country on a tentative basis, but have not had them published yet.</td>
<td>CDI:WG We have not been able to finish the normative study yet. It is being difficult to find parents willing to cooperate. When they do so, they overestimate children’s communicative facts… which means we have had to disregard a great amount of data collected.</td>
<td>CDI:WG (See list of publications below)</td>
<td>The manual is under construction and we expect to have it published late this year.</td>
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<tr>
<td>CDI:WS</td>
<td>CDI:WS</td>
<td>CDI:WS Even though we have not concluded the normative study, we have forwarded to some research groups in the country on a tentative basis, but have not published it yet.</td>
<td>CDI:WS We have not been able to finish the normative study yet. It is being difficult to find parents willing to cooperate. When they do, they overestimate children’s communicative facts… which means we have had to disregard a great amount of data collected.</td>
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<tr>
<td>CDI:WG</td>
<td>CDI:WG</td>
<td>There is a final version we have reached after a couple of validation studies. This was basically achieved through SILVA’s Master’s thesis and PhD. Dissertation under my supervision.</td>
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<tr>
<td>CDI:WS</td>
<td>CDI:WS</td>
<td>In fact, this was the first form we adapted. There is a final version we have reached after a couple of validation studies.</td>
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PLANS FOR FUTURE WORK

Yes. We are interested in the shortform versions.

CONTACT INFO AND PUBLICATIONS

Elizabeth Teixeira
Rua Joao Mendes da Costa Filho 306/302-D
Jardim de Alah
41750-190 Salvador, BA
Brasil
Tel: (0115571) 343-5246
ereist.teixeira@gmail.com

Claudia Tereza Sobrinho Silva
Email: claudia.tsobrinho@gmail.com

Shortly, we will have a URL address


Portuguese (European)

**Person Preparing Report:** Rosa Maria Lima  
**Date:** October 13, 2010

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<tr>
<td>CDI: WS</td>
<td>Yes. It is a final version, after piloting and several reviews</td>
<td>People can request it by writing to my email address</td>
<td>Not yet. We are waiting for consent from schools and parents all over the country (a heavy obstacle to deal with, in our country).</td>
<td>No</td>
<td>No</td>
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**PLANS FOR FUTURE WORK**

I have plans for short versions of all 3 CDIs.  
I also intend on developing CDI: WG and CDI-III.

**CONTACT INFO AND PUBLICATIONS**

Rosa Lima  
Universidade de Aveiro - Centro de línguas e culturas  
Campus Universitário de Santiago  
3810-193 Aveiro  
PORTUGAL  
Email: rolima@elix.pt
Romani

Person Preparing Report: Hristo Kyuchukov
Date: December 15, 2010

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<tr>
<td>CDI:WG</td>
<td>Preliminary</td>
<td>Available only to my students. I show it to them during the lectures</td>
<td>There are no norms</td>
<td>Yes I have done some empirical research and I did analyze the data and I wrote an article which is in print (Kyuchukov, H. and Samuilov, S. (in print) ADAPTING BATES-MACARTHUR COMMUNICATIVE DEVELOPMENT INVENTORIES (CDI) TO ROMANI: A PILOT STUDY. In J. Stoyanova and H. Kyuchukov (eds)Psychology and Linguistics. Papers in honor of prof. Encho Gerganov. Sofia: Prosveta)</td>
<td>No, there is no manual</td>
</tr>
<tr>
<td>CDI:WS</td>
<td>Preliminary</td>
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PLANS FOR FUTURE WORK

Yes, I have plans for further CDI work in the future.

CONTACT INFO AND PUBLICATIONS

Hristo Kyuchukov
Email: hkyuchukov@gmail.com
**Romanian**

**Person Preparing Report:** Dr. Elena Geangu  
**Date:** November 18, 2010

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<tr>
<td>CDI:WG</td>
<td>There are preliminary versions adapted for the Romanian culture.</td>
<td>Limited availability to others, mainly to professionals for the purpose of receiving comments on its applicability.</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<td>CDI:WS</td>
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**PLANS FOR FUTURE WORK**

Yes, I have plans for further CDI work in the future.

**CONTACT INFO AND PUBLICATIONS**

We are expecting to publish the results obtained from the first step of the adaptation process by early summer 2011.

Dr. Elena Geangu  
Psychology Department  
Durham University  
Science Laboratories  
South Road DURHAM DH1 3LE, UK  
Telephone: 01913343245  
Fax:+44(0)191 3343241  
E-mail:elena.geangu@durham.ac.uk

Dr. Oana Benga  
Psychology Department,  
Babes-Bolyai University  
37, Republicii Street,  
400015, Cluj-Napoca  
Romania  
oanabenga@psychology.ro

Soon there will also be a description of the instrument and project at:  
Russian

Person Preparing Report: S. Ceytlin, M. Eliseeva
Date: February 22, 2011

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<tr>
<td>CDI:WG</td>
<td>Final versions</td>
<td>Electronic version</td>
<td>Yes, Electronic version</td>
<td>Comparison with the data we have at our disposal. Our Database on Child Language is represented by audiotapes of spontaneous children’s speech, parents’ diaries, experimental data, etc.;</td>
<td>No</td>
</tr>
<tr>
<td>CDI:WS</td>
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PLANS FOR FUTURE WORK

It depends on many things. We would like to continue our work but research like this is not supported by our authorities and funds. Shortform version of CDI must be very useful for parents and speech-therapists.

CONTACT INFO AND PUBLICATIONS

Inna Chistovich

Stella Ceytlin
Chief of Department of Language Acquisition
SPb Russian Pedagogical University
Email: stl2006@list.ru

http://ontolingva.ru/mac_engl.htm

Besides the results of the work have been used in 4 dissertations of our post-grade students (I.Gridina, A.Bondarenko, J.Puzanova, V.Korolev)
We have developed a tool designed to assess language development in children age 42 months in Lombok, Indonesia. We developed the tool to evaluate the effect of maternal multiple micronutrient supplementation on children’s language development. The interview consists of two sections: (1) 8 items consisting of 2 sentence pairs for assessing grammatical complexity, and (2) 8 yes/no questions concerning semantics, pragmatics, and comprehension. We did not develop a vocabulary checklist, rather, we assessed receptive vocabulary using a locally developed picture vocabulary test.

Final Version

It is available by contacting me at elprado@ucdavis.edu.

No, we do not have norms.


There is a manual, although it consists of only a few paragraphs explaining how to administer and code the interview. It can be obtained by contacting me at elprado@ucdavis.edu.

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<tr>
<td>CDI-III</td>
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<td>We have developed a tool designed to assess language development in children age 42 months in Lombok, Indonesia. We developed the tool to evaluate the effect of maternal multiple micronutrient supplementation on children’s language development. The interview consists of two sections: (1) 8 items consisting of 2 sentence pairs for assessing grammatical complexity, and (2) 8 yes/no questions concerning semantics, pragmatics, and comprehension. We did not develop a vocabulary checklist, rather, we assessed receptive vocabulary using a locally developed picture vocabulary test. Final Version</td>
<td>It is available by contacting me at <a href="mailto:elprado@ucdavis.edu">elprado@ucdavis.edu</a>.</td>
<td>No, we do not have norms.</td>
<td>Prado, E. L., Hartini, S., Rahmawati, A., Ismayani, E., Hidayati, A., Hikmah, N., et al. (2010). Test selection, adaptation, and evaluation: Three critical steps to assess nutritional influences on child development in developing countries. <em>British Journal of Educational Psychology, 80</em>, 31-53.</td>
</tr>
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**PLANS FOR FUTURE WORK**

Currently no plans

**CONTACT INFO AND PUBLICATIONS**

Elizabeth Prado, PhD
Post-doctoral scholar
Program in International and Community Nutrition
University of California at Davis
Email: elprado@ucdavis.edu


Serbian/Bosnian

Person Preparing Report: Slavica Tutnjevic
Date: November 5, 2010

FORMS DEVELOPED

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<tr>
<td>CDI:WS</td>
<td>I have made a preliminary adaptation that I’m using for my PhD Research Project</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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PLANS FOR FUTURE WORK

My plan is to develop a standardized Serbian/Croatian/Bosnian version of the CDI I, II, and III, with norms for the population of Bosnia and Herzegovina, which would include the three language variations (Serbian, Croatian, and Bosnian languages) and two scripts (Latin and Cyrillic), so that the instrument can be used in all parts of Bosnia and Herzegovina. Additionally, with a colleague at the Institute for Psychological Research in Serbia, the plan was to develop a separate version and norms for the population of Serbia, which uses a slightly different form of Serbian Language (E.G. BREAD – HLJEB/HLEB, MILK – MLJEKO/MLEKO ETC.).

CONTACT INFO AND PUBLICATIONS

Slavica Tutnjević
Email: slavicatutnjevic@gmail.com

Darinka Andelković
Email: dandjelk@f.bg.ac.r
Singapore: English, Malay, Mandarin

**Person Preparing Report:** Tan Seok Hui  
**Date:** May 5, 2010

## FORMS DEVELOPED

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<tr>
<td>CDI:WG</td>
<td>This version is final, but I would consider adding more items following some results of recent data collection if it indicates that we have missed out some words which quite a number of children know at that age (and which aren't in the original MacArthur-Bates CDIs).</td>
<td>Yes, speech language therapists use it for assessment purposes but have agreed not to distribute to other SLTs without permission. Currently three SLTs in different clinics in Singapore restructured (semi-government) hospitals use it to assess their infants. An SLT team in a local special school has also used it to assess vocab in their early intervention programme (children with Downs and GDD aged 5 years and below). We will also be using it in an ongoing longitudinal study.</td>
<td>Yes, there are some data available for the instrument published in a book chapter. Tan, S.H. (2010). Multilingual Infant Vocabulary in Singapore. In M. Cruz-Ferreira (Ed.) Multilingual Norming. Peter Lang.</td>
<td>We did a pilot study on the CDI data and language sample of a small number of children (20 or less) a while ago and found they were correlated to each other although the language sampled word types reached a ceiling (30 minute observations). It was difficult to get local families to participate so the data collection was discontinued. The results were presented for a poster presentation at a conference: Tan, S.H., Liu, D., Affandi, H., &amp; Chen, L. (2006) Vocabulary development in bilingual infants in Singapore. Poster presented at International Conference for the Japanese Society for Language Sciences in Tokyo, Japan.</td>
<td>There isn't a manual at the moment. There is a document which cross lists the items across all three languages and against the original MacArthur Bates CDI.</td>
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<td>CDI:WS</td>
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## PLANS FOR FUTURE WORK

We may look at shortform versions in the future but are concentrating on the CDI II. We're not currently working on a CDI III at the moment. We have a Tamil version for CDI II, and will be collecting pilot data on it (June 2010 onwards) and will forward that version when we have finalised the items for it. We hope to use the data to examine the predictive validity of both I and II CDIs with respect to later language (preschool) skills.

## CONTACT INFO AND PUBLICATIONS

Dr Tan Seok Hui  
Department of Psychology  
National University of Singapore
We have a research blog at our lab: http://blog.nus.edu.sg/infantlab/about.

In addition to the book chapter, and the conference poster listed above, we also presented portions of the data from the book chapter (before it was published) at these conferences:


I have also amended the information as our Tamil version will be finalized this month and will be ready by 1 June 2011.
### PLANs FOR FUTURE WORK

One of the different activities connected with the potential CDI-III is to find out proper materials for the evaluation of the narrative structures for the children aged 3 -6 years. We have been cooperated with other researchers from different countries. As a very preliminary step, we have made a study on how the parents and the teachers are able to assess their children’s narrative skills.

### CONTACT INFO AND PUBLICATIONS

Daniela Slancova  
Email: slandan@unipo.sk

Svetlana Kapalkova  
Email: kapalkova@fedu.uniba.sk; kapalkova@chello.sk


Spanish (Columbian)

**Persons Preparing Report:** Maria Fernanda Lara. and Angela Gomez  
**Date:** February 28, 2011

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<td>CDI:WG</td>
<td>At present the CDI counts with a Colombian-Spanish adaptation, this version is completed (fully assembly, piloted, tested and normalized) but not final due to the number of participants, which is desired to increase to achieve a more statistical significant sample.</td>
<td>Currently there is not a version available to the public. In the future it is expected that the CDI in the form of a Manual and Inventory will be available to specialized users.</td>
<td>As outcome of the adaptation and normalization process a Report was produced. This report includes a section of Fitted percentile tables for the different Inventory sections, these percentiles were obtained based on the standard procedures and considerations appearing in the various CDI Manuals used as reference (EE.UU, Spanish and Mexican version) and corrected for the Colombian sample.</td>
<td>The mentioned Report also includes a complete Statistical and Psychometrical results section, where the main measures are presented. The main validity content of this section is here reproduced. As per the degree in which Inventories constitute an adequate and representative sample of the content being evaluated, the MacArthur Bates inventories have been credited with a high content validity drawn from the extended research process conducting to their formulation. As the Colombian version follows as close as possible the original English version, content validity come from the fact that inventories include the major aspects of communicative developments. Also, experts who reviewed inventories considered pertinent items included evaluating the most relevant features of early Communication. For the Colombian case, the CDI also shares aspects evaluated with the Colombia’s government general development instrument: The Development Abbreviated Scale (Heath Ministry), created guided by the observations of a panel of experts on the initial pediatric follow ups, this confirms content validity. Convergent and Concurrent Validity is to be determined for the Colombian standardization of the inventories, obtaining data for convergence between CDI and observation as well as other</td>
<td>Currently there is no Manual for the CDI Spanish-Colombia available.</td>
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<td>CDI:WS</td>
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PLANS FOR FUTURE WORK

The future work on the inventories is oriented to broaden sample and produce deeper – finer analysis of the obtained information. Also, a complete analysis of vocabulary checklist is desirable for a frequency per category relation being created for the Colombian sample.

The adaptation and normalization of the CDI III would be desirable in order to extend the sample and the comprehension of the language development in Colombian samples.

CONTACT INFO AND PUBLICATIONS

Contact: Maria Fernanda Lara Diaz MSc., PhD.
Profesora Asistente
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Facultad de Medicina Oficina 515 A 3165000 ext. 15197
Email: mflarad@unal.edu.co


http://www.docentes.unal.edu.co/mflarad/
Spanish (Cuban)

Person Preparing Report: Barbara Zurer Pearson
Date: December 28, 2010

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<tr>
<td>CDI:WG</td>
<td>Archival</td>
<td>We call our adaptations of the CDIs in Spanish, Infants and Toddlers “archival” because they served a purpose at a moment in time and they have been superseded</td>
<td>No, it was not formally made electronic, and it has been superseded in any event</td>
<td>No. At the time we used the forms (between 1990 and 1993), there was no published CDI in Spanish and no norms. Our papers using the data stated clearly that there were no Spanish norms</td>
<td>In Pearson &amp; Fernandez, 1994, (in the footnote) we report correlations done for the CDIs with the number of types in 50 utterances for the 31 24-month-olds in our study and with the PPVT for the 22 30-month-olds in our study (following Fenson et al., 1991).</td>
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PLANS FOR FUTURE WORK

I am pleased to see that the Spanish CDI authors are in the process of getting a short form published (in a journal, I believe). This is not a field we currently work in.

CONTACT INFO AND PUBLICATIONS

Barbara Zurer Pearson
Research Associate
c/o Dept of Linguistics
226 South College
University of Massachusetts Amherst
Amherst, MA 01003
Tel: 413-545-5023  Fax: 413-545-2792
Email: bpearson@research.umass.edu

Spanish (European)

**Person Preparing Report:**  SUSANA LÓPEZ ORNAT  
**Date:** October 26, 2010

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<tr>
<td>CDI:WG</td>
<td>Final versions</td>
<td>Published 2005 (see Manual below)</td>
<td>Published 2005 (see Manual below)</td>
<td>Published 2005, 2006 and 2007, see recent publications</td>
<td>YES, FROM EDITOR (Madrid, TEA Ediciones; see Manual below)</td>
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<td>CDI:WS</td>
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**PLANS FOR FUTURE WORK**

SHORT FORM FINISHED 2005. Presented 2005

**CONTACT INFO AND PUBLICATIONS**

Susana López-Ornat  
Dpto. Psicología Básica II  
Facultad de Psicología  
Univ. Complutense de Madrid  
Madrid, Spain 28223  
Tel: 91 394 3115  
Email: equial@psi.ucm.es  
www.ucm.es/info/equial

**Note:** First publications and presentations (years 2003 and 2004) appeared under name i-LC, used before agreement was reached with the MCDI board. After agreement with board, since 2005, all publications and presentations appear under the name **European Spanish** MCDI

**MANUAL:**


**PUBLICATIONS**


S. López Ornat. & A. Karousou (2004) Las vocalizaciones tempranas (8-30 meses) y su relación con el vocabulario y la gramática. Su medida en el iLC: resultados preliminares. Communication at IV Congreso Internacional sobre la Adquisición de las


Spanish (Mexican)

Person Preparing Report: Donna Jackson-Maldonado
Date: October 5, 2010

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<tr>
<td>CDI: WG</td>
<td>Final versions</td>
<td>Yes- For sale by Brookes and in Mexico, Manual Moderno</td>
<td>Yes, Published on the CDI Web</td>
<td>Yes, Published in the manual and in JSLHR 2001</td>
<td>Yes, Brookes Publishing Company and Manual Moderno</td>
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<td>CDI: WS</td>
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PLANS FOR FUTURE WORK

Short Form already is normed and publication has been submitted. CDI-III is in norming stage. Norms will be available August 2011.

CONTACT INFO AND PUBLICATIONS

Contact:
Donna Jackson-Maldonado
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Universidad Autónoma de Querétaro
México
tel: 52 442 192 1200 ex. 6120
home 52 442 2180264
Email: djacksonmal@hotmail.com
http://www.donnajackson.weebly.com
### Swedish

**Person Preparing Report:** Mårten Eriksson  
**Date:** September 30, 2010

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<tr>
<td>CDI: WG</td>
<td>Final for CDI: WG and WS Preliminary for CDI-III</td>
<td>Available after request</td>
<td>The norms are available from the manual, see attachment.</td>
<td>The Swedish Early Communicative Development Inventories (SECDI)--w&amp;g (words and gestures; 8-16 months) and w&amp;s (words and sentences; 16-28 months)--is a new instrument to assess communicative and language abilities in Swedish speaking children. Test-retest reliability and content validity of SECDI were examined. The results show that the SECDI covers common words in Swedish children's vocabulary and that its grammar scale (w&amp;s) incorporates items that develop early among many children. Test-retest was analysed over 2 or 3 months, first for 57 and then for 60 children. Test-retest reliability scores are as follows: SECDI--w&amp;g = between 0.70 and 0.90 in most age ranges; and SECDI--w&amp;s = close to or above 0.90 on most measures.</td>
<td>Available after request</td>
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<td>CDI: WS</td>
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<td>CDI-III</td>
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**PLANS FOR FUTURE WORK**

CDI-III under development

**CONTACT INFO AND PUBLICATIONS**

**Contact:** Mårten Eriksson,  
Department of Social Work and Psychology,  
Faculty of Health and Occupational Studies,  
University of Gävle, SE-801 76 Gävle, Sweden  
Email: marten.eriksson@hig.se.

On forms and norms in typical and atypical populations:


Short forms developed for screening:


Validation studies:


Comparisons between language communities:

CDI: WS

I have a version that I consider extremely preliminary. It is mainly just words and three longest utterances. I’m working on developing something to measure grammatical complexity.

Yes, I have made it available to people who have emailed me directly with requests. I’ve asked that they share any data they collect with me so that I may continue to improve the form.

No

No

No

PLANS FOR FUTURE WORK

It is in my long-term plans to further develop the Tamil CDI and collect enough data to make it possible to have item-level data, write a manual, etc.

CONTACT INFO AND PUBLICATIONS

Contact: Nitya Sethuraman
Department of Behavioral Sciences
4012 CB
University of Michigan-Dearborn
Dearborn, MI 48128
(313)-593-5139
Email: nitya@umd.umich.edu
The norms will be ready by the end of this year.

Those data are in the process of being collected. I expect the results will be available by the end of 2011.

152 Turkish speaking mother-child dyads including 48 infants and 104 toddlers are to be included in this study. All of the children will be healthy, full-term children without any neurological disorder. The children will be approximately equally distributed across the age ranges and across the family socio-economic status. Mothers of children will be contacted by means of snowball sampling and asked to participate in the study. All mothers will be current residents of İstanbul and three other Turkish cities: Adana, Ankara, and Eskişehir. The children will be videorecorded with their primary caregivers for 45 minutes in three different segments, where the researcher provides different sets of toys and a storybook to the dyad. After the videorecording session, the CDI data will be obtained from the primary caregiver.

**PLANS FOR FUTURE WORK**

We are going to consider building a short form soon.

We are part of the narrative group that might be appended to CDI-III

**CONTACT INFO AND PUBLICATIONS**

Dr. Aylin Küntay  
Department of Psychology  
Koç University  
Rumeli Feneri Yolu  
Sariyer 34450  
İstanbul, Turkey  
Email: akuntay@ku.edu.tr

We have only one publication, which is a proceeding paper. The citation is:  
Adapting MB-CDI to Turkish: The first phase. In S. Ay, Ö. Aydın., İ. Ergenç, S. Gökmen, S.
**Welsh-English Bilingual**

**Person Preparing Report:** Debbie Mills  
**Date:** October 13, 2010

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<tr>
<td>CDI: WG</td>
<td>Preliminary</td>
<td>Not yet</td>
<td>We will be collecting norms - but are currently seeking funding</td>
<td>Validity measures are part of the plan both behavioral and ERP measures</td>
<td>There will be</td>
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**PLANS FOR FUTURE WORK**

Perhaps - just starting now. I do plan a web-based version for helping to collect normative data. Phase II, developing CDI: WS

**CONTACT INFO AND PUBLICATIONS**

We are working on developing a URL.

Debbie Mills, Ph.D.  
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Adeilad Brigantia  
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Gwynedd LL57 2AS  
United Kingdom

Tel: +44 (0) 1248 388572  
Fax: +44 (0) 1248 38 2599  
Email: d.l.mills@bangor.ac.uk  
Web: http://www.psychology.bangor.ac.uk/research/staff_profile.php?person=debbie_mills
PLANS FOR FUTURE WORK

As explained above this is the last time this long version is being administered: a shorter version will be developed on the basis of the items that are always and never selected.

CONTACT INFO AND PUBLICATIONS

Isabelle Barriere, PhD
Director of Policy for Research & Education
Yeled v’Yalda Early Childhood Center
& Co-Director, YvY Research Institute
6012 Farragut Road, Brooklyn NY 11236
Fax: 718 209 1171
Tel: 718 209 1122 Ext. 237
& Assistant Professor
Department of Speech Communication Arts & Sciences
Brooklyn College, City University of New York
Individual office: 2149A Ingersoll/ Departmental office: 3439 Boylan
2900 Bedford Avenue, Brooklyn, N.Y. 11210
Fax: 718 957 4167 Tel: (718) 951-3061

URL: http://www.yeled.org/res.asp
Obtaining Authorization for Adaptations of the
MacArthur-Bates Communicative Development Inventories

Revised March, 2008

The MacArthur-Bates Communicative Development Inventory (CDI) Board is gratified by the research and clinical usefulness of the CDI instruments, and welcomes their adaptation into as many of the world's languages as possible. However, it is important that adaptations of the CDI adhere to shared standards and procedures that make them genuinely comparable to the original and thus insure some degree of coherence and consistency across versions. Furthermore, given the extensive work required to develop an adequate adaptation, it is important that appropriate academic and other resources be available for the project, and that duplication be avoided. For these reasons, the CDI Board authorizes specific adaptations of the CDI, using the following guidelines:

A. The research team should have appropriate competence and resources for generating a successful adaptation, including norming and validation. We encourage collaboration among researchers in these projects. When the resources and plans are appropriate, a full, exclusive authorization (Level I) will be granted. In other cases, an individual researcher or group of researchers may wish to develop an adaptation for a specific research project, such as a dissertation, without plans for full norming and validation. In these cases, a limited, nonexclusive authorization (Level II) will be granted, which does not include the right to use the term “MacArthur” or “CDI” in the title, or to distribute the form to others. This does not preclude a later individual or research group from proposing a full adaptation

B. The proposed adaptation should contain the major communicative structure categories that are in the original. Specifically, adaptations of the CDI:Words & Gestures should assess receptive and expressive vocabulary, and gestures. Adaptations of the CDI:Words & Sentences should assess expressive vocabulary and grammar, the latter in a format appropriate to the structure of the language. Adaptation of other components of the original CDIs is optional, as is the addition of new components not in the English CDIs. New components should be consistent with the general CDI approach, which is parent-report, primarily in a recognition format.

C. CDI adaptations covering a closely related language or an additional dialect may be authorized when they provide unique appropriateness beyond previously authorized versions. For example, we have authorized adaptations for Mandarin and Cantonese versions of Chinese; for German and Austrian German; and for several of the closely related languages of Spain, i.e., European and Mexican Spanish, Galician, and Catalan. Each is a separate and unique project. Authors submitting a request for authorization to develop instruments for a language or dialect close to one for which there is an existing, authorized adaptation should include information about the differences which they believe justify the proposed new forms. Minor differences in pronunciation or vocabulary items can generally be handled by writing in the variations on existing forms.
Both parent report and vocabulary checklists have long histories antedating the development of
the CDI, and nothing here precludes the development of qualitatively different instruments along
other lines. Those instruments, however, should not be characterized as MacArthur or
MacArthur-Bates CDIs. Investigators unsure whether their work might infringe on the copyright
of the CDIs are invited to address their questions to the CDI Advisory Board. Investigators
interested in developing an authorized adaptation of the CDI should follow these steps:

1. Describe the proposed project, addressing the guidelines listed above, and submit
this proposal to the MacArthur-Bates CDI Board. Philip Dale (dalep@unm.edu) is the
contact person for these requests. The request should include
- a statement of the nature of the proposed adaptation, including which forms will be
adapted and the plan for the adaptation, plans for norming and validation (if any), and
in the case of languages closely related to those with existing authorization, an
explanation of the need for a new adaptation
- names and vitas for the principal authors of the adaptation
- an approximate timetable
The CDI Board will provide written authorization of approval, and would be happy to
maintain contact during the development period, if the research team finds
consultation useful.

2. When the adaptation is complete, a copy should be sent to the MacArthur-Bates
CDI Board (again via Philip Dale) for final approval. Only with this final approval,
provided in writing, is use of the term “MacArthur-Bates CDI” or equivalents
permitted. Approved adaptations will be listed on the CDI website (http://www.sci.sdsu.edu/cdi/
) with links to the instrument and to the adaptation team.
Note that there is no requirement that the term “MacArthur-Bates CDI” be used in the
title of adaptations; it is entirely optional. However, if it is not used in the title, a
footnote or other prominent note should be included on the form acknowledging that
this is an authorized adaptation of the MacArthur-Bates CDI.

3. Authors of approved versions who wish to explore commercial publication of their
MacArthur-titled instruments must obtain explicit, written permission from the CDI
Board, holders of the CDI copyright. This permission will normally be granted
automatically, with no charge, for all languages other than English or Spanish, if the
previous steps have been followed. All authorizations for publication by the CDI
Board are for specific adaptations whose development has been previously authorized,
and have no implications for other adaptations. For adaptations into other dialects of
English or Spanish, our copyright and contractual arrangements with Brookes
Publishing entail a negotiated agreement with Brookes as well as with the CDI Board.
Some Suggestions for the Adaptation of the MacArthur-Bates Communicative Development Inventories to Additional Languages

Philip S. Dale, Larry Fenson, and Donna Thal
November 3, 1993

The validity and efficiency of the MacArthur Communicative Development Inventories as a measure of language development between 8 and 30 months (Fenson, Dale, Reznick, Thal, Bates, Hartung, Pethick & Reilly, 1993) have led several research groups to develop similar measures for other languages. Versions of the CDIs have been developed and normative data have been collected for Italian (Caselli & Casadio, 1993) and Spanish (Jackson-Maldonado, Thal, Marchman, Bates, & Guiterrez-Clellen, in press). Adaptations have also been developed and preliminary data collected in Japanese (Ogura, Yamashita, Murase, & Dale, 1993) and in American Sign Language (Reilly, Provine, & Bellugi, 1993). Versions are currently being developed in Hebrew, Chinese, German, Swedish, British English, and several other languages.

These adaptations are motivated by both research and clinical needs. From a research perspective, cross-linguistic research has provided much fruitful data for formulating and evaluating theories of language development (Slobin, 1985; 1992). The extent to which the early phases of language development, in particular, remain similar or diverge in languages of differing structure provides crucial evidence for the existence and nature of basic "operating principles" of language development. Yet cross-linguistic research, like research on the acquisition of English, has been generally limited to the study of very small samples. A comparison of two or three children acquiring one language, with two or three children acquiring a different language, has only limited interpretability in the absence of information about variability among children acquiring those languages. An apparently large contrast between the two groups may simply reflect sampling fluctuation in the two populations; alternatively, a genuine difference may be obscured by sampling variation in the opposite direction. Information is needed on the nature, time course, and stability of individual differences in the acquisition of each language. This basic science understanding of variation is also essential for the diagnosis and remediation of language disorders. Investigation of individual differences necessarily requires large samples of children; parent report is ideally suited for this purpose.

This brief list of suggestions is directed to investigators preparing to develop a communicative development inventory based on parental report.

1. Each new inventory is necessarily an adaptation, not a translation, of the CDIs. Languages and cultures differ substantially in both the form and content of their communication systems, and there is every reason to believe that even in the earliest phases of development differences will be noticeable in gestural communication, vocabulary, and grammar. For example, Ogura et al. (1993) included bowing as an early-emerging gesture, while Jackson-Maldonado (in press) include "tortellitas" (little tortillas), a variant of pattycake used in Mexico. In the domain of vocabulary, it is obvious that there can be major differences in clothing, food, and household items.
2. Grammatical features are likely to be even more different from one language to another. This raises problems for measuring vocabulary, as well as grammar. Consider, for example, the problem that Italian researchers face in constructing a list of nouns and verbs. Which inflected form of the noun or verb should they use on the word checklist? Caselli and Casadio followed the convention of using singular nouns and verbs in the infinitive form. Languages with a rich inflectional morphology system are especially difficult. The English list includes different entries for "am," "are," and "be." In a language like Italian, listing all forms separately in this way would enormously lengthen the list. In the Sentence Complexity section, assessing grammatical development, the selection of which aspects of grammar to include, and how to capture early syntax and morphology must be done on the basis of knowledge of the acquisition of each language. We believe the forced-choice, sentence pair format developed for the English-language CDI will prove valuable in most languages.

3. The English-language CDIs have many subparts. The core components of the CDI: Words and Gestures are a 396 word vocabulary checklist (comprehension and production), and a 63 item list of gestures. The core components of the CDI: Words and Sentences are a 680 word vocabulary checklist (production only) and a set of 37 sentence pairs to assess sentence complexity. These have the greatest validity as general measures of language development for English, and similar scales are likely to be the most important in other languages. It is not essential to adapt the other, more minor portions of the CDIs.

4. It is very important to keep in mind from the outset the need for multiple iterations in the development process. The CDIs represent the culmination of nearly 20 years of research, beginning with interviews. Even as questionnaires, they have evolved through more than half a dozen forms in the past decade. In each cycle of revision, previously collected data have been used to modify, add, or omit selected items in order to improve clarity, internal consistency, and validity. It is best to develop the first version or two on a small scale, concentrating on obtaining the information necessary to revise the inventory before proceeding to a larger-scale norming study.

5. In the process of iteration, it is most effective to begin with a more open-ended format, in which parents are invited to list additional words and gestures, and perhaps even sentences. In this way, a more inclusive list of potential items appropriate for the widest possible range of young children in the linguistic community of interest will be generated. At each step, information from a modest number of parents across the full age range can be used to modify the inventory on the basis of item frequency, clarity of questions, etc. Information from language samples is also highly valuable for identifying possible additions. Later in the development process it is important to shift to the checklist format for the collection of norms, in order to remove the variance that would otherwise be introduced by parental reporting style and recall abilities.
6. Items with relatively low frequency are appropriate for the instrument (along with higher frequency items), in order to provide an assessment across the full range of age and language ability. In the development of the English-language forms, only items with an overall frequency of less than 5% were dropped on the basis of frequency alone.

7. The developers of the English-language MacArthur Communicative Development Inventories had the advantage of being part of a sizable collaborative team, with an adequate amount of time (many years), and access to substantial samples of children. This will often not be the case in other linguistic communities. We believe the highest priority should be given to going through the revision cycle at least twice with a modest number of parents (perhaps 25-30) before attempting to obtain norms from a larger number of children. For the norming process itself, we recommend a minimum of 40 children at each age for which norms are being obtained. (It may not be appropriate or necessary at first to obtain norms at each month of age, depending on the intended use of the instrument.)

8. Finally, even though numerous studies have documented the validity of the CDIs for English, it is highly desirable to conduct validity studies of the newly adapted forms, comparing parental CDI information with information from structured tests and/or language samples.