Dealing with multilingualism in ECEC
Becoming near-native proficient in two or more languages is possible.

Early onset (before age 5 or earlier) of L2 learning seems critical in this regard.

Quantity, quality, variation!

Several advantages (but there is some debate):
- Enhanced language and metalinguistic awareness.
- Cognitive advantages (control functions, memory).

Disadvantages?
- Smaller vocabularies in each language.
- Slower and less accurate lexical processing.
“Draw a (...) that does not exist”

English-Hebrew bilingual 4- to 6-yr-olds

Hebrew monolingual 4- to 6-yr-olds

- Bilingual advantage: *cross-category insertion (creativity).*
- Monolingual disadvantage: *within category deletion.*

Adi-Japha et al., 2010 (CD)
What do parents want?

- Many studies across Europe indicate that, if facilitated, parents from language minorities, and also from indigenous heritage languages, want their children to become proficient bilinguals (Leseman & Slot, 2014).

- Increasing pressure from main-stream (monolingual) parents to introduce dual language programs in ECEC.

- Paradoxical policy! For example, strong emphasis on learning the main language and little support for immigrant languages, but... (Helot & Young, 2002).
• CARE-project: survey among stakeholders (2300+ parents and 2500+ staff from 9 countries).
• “How important is it that the ECEC center supports learning of another language than the main language of a country?” (preliminary, unpublished findings)
What is society’s response?

- European countries vary in diversity policy, from forced assimilation to respectful integration.
- Supporting respectful integration, including first language support, seems most effective.
- The worst thing is not having a clear policy.

Berry et al., 2006 (JADP)
• **CARE-project**: comparison of official curricula of 12 European countries (Sylva et al., 2015).

• Child rights and ‘voice’ are mentioned in some curricula, the importance of addressing cultural diversity is mentioned in most curricula.

• Some of the analysed curricula specify supporting bilingual development – mostly in view of inclusiveness and related to indigenous language minorities (Estonia, Finland, Greece, Italy, Norway,...).

  - “Show interest in, be respectful to, if possible support...”
  - Bilingualism in a **special needs** framework.
• “Keep the two languages as separate as possible, don’t mix” (e.g. one-parent-one-language strategy; L1 at home, L2 in preschool – “forbid children to use their L1 in preschool”).

• **No support in brain research**: the two languages are represented in the same brain areas and highly interconnected, yet are distinguished from early on – enabling switching and mixing (Petitto, 2009).

• Code-switching is an **ability** that can be deliberately used (Grosjean, 2010) – but a debated view.
‘Languaging’ – using the languages inter-mixed, but drawing attention to structural, semantic and pragmatic characteristics and differences.

- Use of both L1 and L2 at home is related to cognitive advantages (attention, inhibition, switching), but only L1 at home and only L2 in preschool perhaps not.

- Language awareness may also depend on being able to compare languages within the same situation.

‘Objectifying’ language: possible with young children?
One or two languages at home?

<table>
<thead>
<tr>
<th>Bilinguals</th>
<th>Monolinguals</th>
</tr>
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<tbody>
<tr>
<td>Only L1 at home</td>
<td>L1 &amp; L2 at home</td>
</tr>
<tr>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Selective attention</td>
<td></td>
</tr>
<tr>
<td>Number of located targets</td>
<td>5.95</td>
</tr>
<tr>
<td>Number of repetition errors</td>
<td>.19</td>
</tr>
<tr>
<td>Visuospatial Memory</td>
<td>79.8</td>
</tr>
<tr>
<td>Delay of gratification</td>
<td></td>
</tr>
<tr>
<td>% of children not looking in bag</td>
<td>74.5 %</td>
</tr>
<tr>
<td>% of children not touching bag</td>
<td>83.3 %</td>
</tr>
<tr>
<td>% of children not touching gift</td>
<td>79.4 %</td>
</tr>
<tr>
<td>Verbal inhibition &amp; switching</td>
<td>1.98</td>
</tr>
</tbody>
</table>

Inhibition/switching
'Make the sound of the other animal'

Delay of Gratification
'You must try not to touch the present'

Verhagen, Mulder & Leseman, 2015 (BLC)
Curriculum design principles

- Language learning, especially word learning, should be embedded in conceptually coherent domains.
  - In second language learners, L1 can be used to explain L2 concepts.
- Sensitive interaction (contingently responding, recasting, expanding, extending).
  - Second language learners benefit from intermodal language learning, using gestures, iconic behavior, concrete objects and actions.
- Focus should be on learning general purpose conceptual, lexical, grammatical and pragmatic structures that can help children to disclose (educational) discourse and accelerate their language learning from context.
Dual language programs

- **Barnett et al. (2007):**
  - Dual Spanish-English vs. English only immersion program involving bilingual children with Spanish or English as home language.
  - Dual language program for 8 hours a day, 200 days, rotating children by the week to an English only or Spanish only class – all approaches within the High/Scope curriculum.
  - Substantial gains in all measures. No differences regarding English language, but bigger gains in Spanish in the dual program.

- **Durán et al. (2010):**
  - Transitional full-time dual Spanish-English language program vs. English only - Spanish-only in the first year, English-only in the second year – all approaches within the Creative Curriculum.
  - Gains in all measures. No differences in gains in English, but bigger gains in Spanish in the dual language condition.
Can we employ teachers for all desired L1-L2 combinations, who are:
- Near-native speakers of L1 and L2 (to provide high linguistic quality);
- And good pedagogues?

Can we create sufficient time per child for varied dual L1-L2 exposure? How can we organize that in a classroom with several different L1’s?

Need for creative solutions: involving parents and new educational technology.
Involving parents – feasible?

- Dutch HIPPY (“Opstap”): stimulating language, cognitive and emotional development.
- Mother works with the child 15 minutes per day (30 weeks per year, two years in all) in the first language.
- Two-year program, providing educational materials and activities through worksheets.
- Home-visiting and modelling, parent group meetings.
Results Turkish-Dutch children

Standard Effect Sizes - Experimental vs. Control Group (= 0)

<table>
<thead>
<tr>
<th></th>
<th>Vocabulary in Turkish (L1)</th>
<th>Grammatical skills in Turkish (L1)</th>
<th>Concepts in Dutch (L2)</th>
<th>Numeracy in Dutch (L2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leseman &amp; Van Tuijl, 2001</td>
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</table>
Internet environment for parents

- “DIGITAAL” (Digital Language), pilot with an interactive internet-based environment for parents to help them in supporting their children’s L1 development.
- Login via Ipad, laptop, home pc (smartphone).
- Content (a few examples) – all provided in L1:
  - Brief, accessible webinars on the topic.
  - Video-clips with ‘models’ of parent-child interaction.
  - Animated story books, narratives with picture books, math games, child-level documentaries (world knowledge....).
  - General child rearing information.
  - Planned: monthly newsmagazine in L1 to support parents’ skill in and use of formal (academic) register in L1.
L2TOR – a perfectly bilingual robot

- High quality speech in L1 and L2.
- Gesturing, acting.
- Interactive, sensitive, playful.
- Conceptual domains:
  - Spatial language.
  - Mathematical language.
  - Narrative and mental state language.

- University of Plymouth
- Tilburg University
- Utrecht University
- Koç University
- University of Bielefeld
Further information

- www.ecec-care.org
- Other selected publications: