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## Dealing with multilingualism in ECEC

## Some evidence

- 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.


## What do parents want?

- Many studies across Europe indicate that, if facilitated, parents from language minorities, and also from indigeneous 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).


## Views of parents and staff

- 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 (preliminary, unpublished findings)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.

## European ECEC curricula

- 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.


## Traditional bilingual pedagogy

- "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.

New pedagogy - still experimental

- '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?

## Bilinguals

## Monolinguals

|  | Only L1 at home |  | L1 \& L2 at home |  | Only main Lang |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | M | SD | M | SD | M | SD |
| Selective attention |  |  |  |  |  |  |
| Number of located targets | 5.95 | 1.00 | 5.90 | . 71 | 6.02 | . 97 |
| Number of repetition errors | . 19 | . 20 | . $11{ }^{+}$ | . 16 | . 09 | . 23 |
| Visuospatial Memory | 79.8 | 15.5 | 82.3 | 15.2 | 82.7 | 15.7 |
| Delay of gratification |  |  |  |  |  |  |
| \% of children not looking in bag | 74.5 \% |  | 77.1\% |  | 74.8 \% |  |
| \% of children not touching bag | 83.3\% |  | 94.3 \% * |  | 89.4\% |  |
| \% of children not touching gift | 79.4 \% |  | 94.3 \% * |  | 91.8\% |  |
| Verbal inhibition \& switching | 1.98 | 1.52 | 2.57 ** | 1.56 | 2.11 | 1.61 |



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


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

## 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.


## Practical problems

- 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 eductional materials and activities through worksheets.
- Home-visiting and modelling, parent group meetings.


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



## 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, childlevel 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



[^0]> High quality speech in L1 and L2.
> Gesturing, acting.
> Interactive, sensitive, playful.
> Conceptual domains:

- Spatial language.
- Mathematical language.
- Narrative and mental state language.


## Further information

- www.ecec-care.org
- Sylva, K., Ereky-Stevens, K., \& Aricescu, A.-M. (2015). Curriculum Quality Analysis and Impact Review of European Early Childhood Education and Care : Overview of European curricula and curriculum template. Oxford: University of Oxford. (CARE; contract 613318)
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- Van Schaik, S.D.M., Huijbregts, S.K., \& Leseman, P.P.M. (2014). Cultural diversity in teachers' group-centered beliefs and practices in early childcare. Early Childhood Research Quarterly, 29(3), 369-377.
- Verhagen, J., Mulder, H., \& Leseman, P.P.M. (2015). Effects of the home language environment on inhibitory control in bilingual three-year-old children. Bilingualism: Language and Cognition (in press).


[^0]:    ICT2015/Horizon2020 (2016-2019)

    - University of Plymouth
    - Tillburg University
    - Utrecht University

    Koç University

    - University of Bielefeld

