

# Early classroom integration among dual and single language learners: Interactive associations with language and shyness

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## Purpose

**Dual Language Learners (DLL)** face early socialization challenges (Halle et al., 2014)

Poorer societal language skills pose risk for classroom isolation and maladaptation (Tabors, 2008; van Grünigen et al., 2012)

### Q1. Which societal language skills (expressive vs receptive) are most critical for classroom integration?

Shy temperament may increase **or** decrease importance of language:

?

Increased arousal in social environment may make understanding & expression more difficult (Coplan & Armer, 2005)

Shy children may not capitalize on (particularly expressive) language skills as strongly as bolder children (Rimm-Kaufman & Kagan, 2005)

### Q2. How does shyness moderate influence of language skills on classroom integration?

These processes may be stronger among DLL than among **single language learners (SLL)**, given extra challenges

### Q3. Are there differences between DLL and SLL children?

## Method

**C.R.O.C.O.D.I.L.E. study:** conducted in Switzerland & Germany

#### 121 DLLs:

(Age<sub>months</sub>: M = 46.94, SD = 9.06)

52% girls, 64.5% mothers w/university degree

95 Parent Q's / 59 Teacher Q's

#### 210 SLLs:

(Age<sub>months</sub>: M = 48.06, SD = 8.15)

48% girls, 77.8% mothers w/university degrees

167 Parent Q's / 130 Teacher Q's

#### MEASURES

##### Task

- Receptive Language skills (RLS):  
Vocabulary: Peabody Picture Vocabulary Test (PPVT; Stella et al., 2000)  
Sentence comprehension: Picture-choice task (Lecocq, 1998)
- Expressive Language skills (ELS):  
Vocabulary: Picture-naming task (Kiese-Himmel, 2005)

**Parent report** → Shyness: CBQ-SF shyness subscale (Putnam & Rothbart, 2006)  
6-items (a<sub>DLL</sub> = .77; a<sub>SLL</sub> = .82)

**Teacher report** → Classroom integration: in-house development  
3-items (a<sub>DLL</sub> = .76; a<sub>SLL</sub> = .61)

## Results

### Group differences:

DLLs performed more poorly than SLL on RLS ( $p < .001$ ) and ELS ( $p < .001$ ).

DLLs were rated higher on shyness ( $p < .01$ ) but equally on classroom integration (ns).

### Both RLS and ELS interact with shyness to predict classroom integration, among DLL only

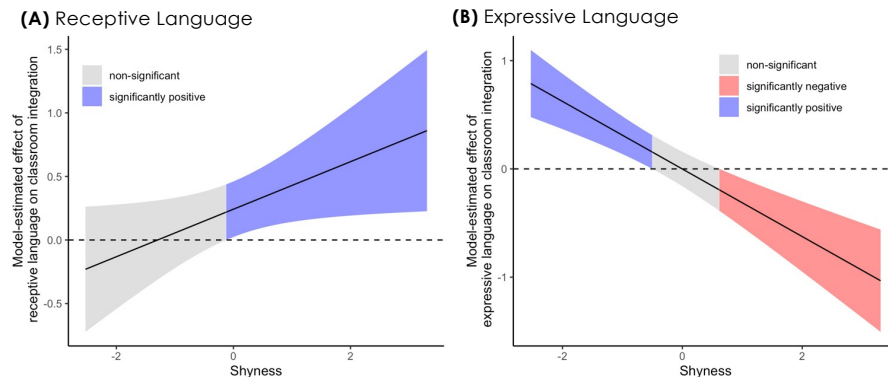
**Table 1.** Coefficients for multigroup model of classroom integration

	Dual Language Learners				Single Language Learners			
	Estimate	Std. Err.	Std. Est.	p-value	Estimate	Std. Err.	Std. Est.	p-value
Shyness	-.03	.05	-.05	.56	-.03	.05	-.07	.57
Receptive language	<b>.24</b>	<b>.09</b>	<b>.30</b>	<b>&lt; .01</b>	.16	.11	.23	.13
Expressive language	.00	.07	.00	.99	-.11	.12	-.10	.39
RLS x Shyness	<b>.19</b>	<b>.07</b>	<b>.29</b>	<b>&lt; .01</b>	.00	.08	-.03	.99
ELS x Shyness	<b>-.31</b>	<b>.06</b>	<b>-.75</b>	<b>&lt; .001</b>	-.03	.12	.00	.83
R <sup>2</sup>	.55				.04			

Note. Estimated using Full Maximum Likelihood with Robust Standard Errors in Mplus v8.  
Age, gender, and maternal education included as covariates (effects not shown).

- **RLS has an increasingly strong positive association with integration among shy DLLs**
- **ELS has a positive association with integration among bolder DLLs but a negative association among shy DLLs**

**Figure 1.** Model-estimated slope coefficients



## Discussion

- Among DLLs, shy temperament affected the association between **both** language skill modalities and classroom integration
- Moderation differed based on language skill modality
  - Receptive language skills may help **shyer DLLs** feel more confident in social classroom interactions
  - Expressive language skills may help **bolder DLLs** successfully interact with classroom peers
  - Expressive language skills may complicate integration for **shyer DLLs**
    - Possessing the skills but also increased reticence to speak may impede interactions
    - Further research needed to elucidate this relation
- Receptive and expressive language skills interact differently with children's temperament
  - Importance of viewing **language as multi-modal**
- Null results among SLL group may be due to higher group-level language skills

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