

## Calculating Language Proficiency

Recent research has indicated that understanding the current language exposure of bilingual students is important in the process of making diagnostic decisions. Bedore and colleagues (2018) and Peña and colleagues (2020) found that the use of standardized measures with a language with less than 30% exposure did not provide information that informed diagnostic decisions.

There are many ways to calculate language exposure, and some of them are quite complicated. In an effort to simplify the process, we've made some assumptions. If these assumptions are not consistent with your student's reality, it would be best not to use this particular approach to calculating current language proficiency. We recommend that you use the Bilingual Input-Output Survey (BIOS, Peña & Colleagues, 2016).

Our assumptions are:

1. Students spend time at home and at school.
2. Students spend approximately 8 waking hours at school 5 days per week.
3. Students spend roughly 6 waking hours after school before bed (we broke this into two equal parts of afternoons and evenings)
4. Students spend roughly 16 waking hours each weekend day.

**PAGE 1 EXAMPLE** Enter the percentage of English heard or used in each setting.

	Percent of English	Hours Per Week	Hours of English (multiply % by hours)
<b>Speaking at School</b>			
With Primary Teacher(s)	75%	15	11.25
With Students	75%	3	2.25
With Other School Personnel	75%	2	1.5
<b>Listening at School</b>			
With Primary Teacher(s)	75%	15	11.25
With Students	75%	15	11.25
With Other School Personnel	75%	10	7.50
<b>Speaking Outside of School</b>			
After School	75%	15	11.25
Evening/Nights	75%	15	11.25
Weekends	75%	32	24.00
<b>Listening Outside of School</b>			
After School	75%	15	11.25
Evenings/Nights	75%	15	11.25
Weekends	75%	32	24.00
Sum the hours in the gray boxes		184 <small>Total Hours</small>	138 <small>sum hours here</small>
Divide Sum of hours by total hours (184) to get % English Input and Output			138/184=75%
Subtract English % from 100% to get % Home Language Input and Output			100%-75%=25%

## Calculating Language Proficiency

Bedore and colleagues (2018) and Peña and colleagues (2020) found using standardized measures in languages for which a student’s current exposure was less than 30% exposure did not provide information that informed diagnostic decisions. Calculating current input and output helps us plan for our assessment and make decisions about the need for an interpreter.

In the case of low home language proficiency, best practice indicates that home language proficiency should be probed informally (i.e. conversation, story-telling) by a native language speaker and annotated in the report. For example:

*Student was asked questions / was asked to have a conversation in Spanish by a native Spanish speaker but could not establish a baseline / was unable to complete the exercise. English appears to be the best measure of her communicative competence.*

Bedore, L. M., Peña, E. D., Anaya, J. B., Nieto, R., Lugo-Neris, M. J., & Baron, A. (2018). Understanding disorder within variation: Production of English grammatical forms by English language learners. *Language, Speech, and Hearing Services in Schools, 49*(2), 277-291.

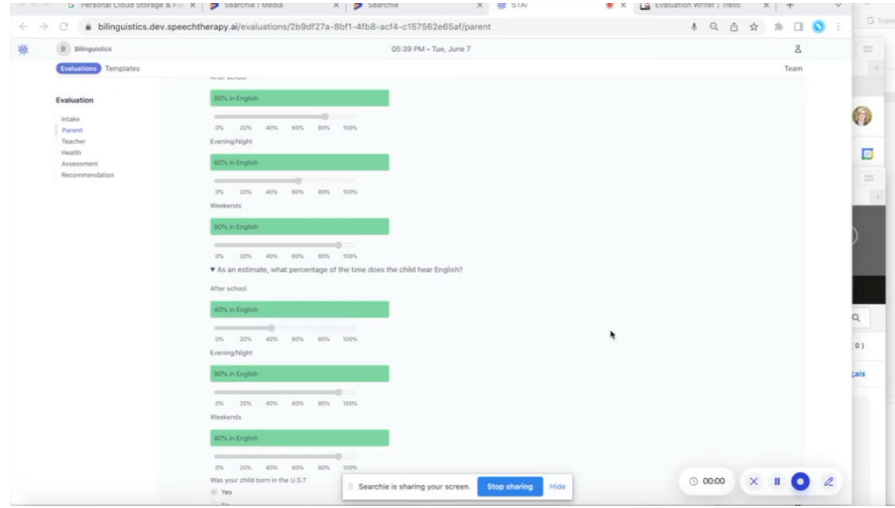
Peña, E. D., Bedore, L. M., Shivabasappa, P., & Niu, L. (2020). Effects of divided input on bilingual children with language impairment. *International journal of bilingualism, 24*(1), 62-78.

Enter the percentage of English heard or used in each setting.

	Percent of English	Hours Per Week	Hours of English (multiply % x hours)
<b>Speaking at School</b>			
With Primary Teacher(s)	<input style="width: 100%;" type="text"/>	15	<input style="width: 100%;" type="text"/>
With Students	<input style="width: 100%;" type="text"/>	3	<input style="width: 100%;" type="text"/>
With Other School Personnel	<input style="width: 100%;" type="text"/>	2	<input style="width: 100%;" type="text"/>
<b>Listening at School</b>			
With Primary Teacher(s)	<input style="width: 100%;" type="text"/>	15	<input style="width: 100%;" type="text"/>
With Students	<input style="width: 100%;" type="text"/>	15	<input style="width: 100%;" type="text"/>
With Other School Personnel	<input style="width: 100%;" type="text"/>	10	<input style="width: 100%;" type="text"/>
<b>Speaking Outside of School</b>			
After School	<input style="width: 100%;" type="text"/>	15	<input style="width: 100%;" type="text"/>
Evening/Nights	<input style="width: 100%;" type="text"/>	15	<input style="width: 100%;" type="text"/>
Weekends	<input style="width: 100%;" type="text"/>	32	<input style="width: 100%;" type="text"/>
<b>Listening Outside of School</b>			
After School	<input style="width: 100%;" type="text"/>	15	<input style="width: 100%;" type="text"/>
Evenings/Nights	<input style="width: 100%;" type="text"/>	15	<input style="width: 100%;" type="text"/>
Weekends	<input style="width: 100%;" type="text"/>	32	<input style="width: 100%;" type="text"/>
Sum the hours in the gray boxes		<b>184</b> <small>Total Hours</small>	<input style="width: 100%;" type="text"/> <small>sum hours here</small>
Divide Sum of hours by total hours (184) to get % English Input and Output			<input style="width: 100%;" type="text"/>
Subtract English % from 100% to get % Home Language Input and Output			<input style="width: 100%;" type="text"/>

## Calculating Language Proficiency

Inside of Evalubox, you don't need to do the calculations. We ask teachers and parents to estimate exposure and use using sliders.



Once the sliders are in place, the math happens behind the scenes and a report is generated that looks like this.

Taking all reports of language exposure and use into account, overall exposure and use of Spanish is 18 percent and of English is 82percent.\*

	Home Language Heard	Home Language Spoken	English Heard	English Spoken
School with Teacher	10	20	90	80
School with Students	30	10	70	90
School with Other School Personnel	0	10	100	90
After School	60	20	40	80
Evening/Night	10	40	90	60
Weekends	10	10	90	90