

This item is the archived peer-reviewed author-version of:

Simulated speaking environments for language learning: insights from three cases

Reference:

Sydorenko Tetyana, Smits Tom, Evanini Keelan, Ramanarayanan Vikram.- Simulated speaking environments for language learning: insights from three cases
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Figure 1. The *Simulated Environment 1* interface (Authors Y, 2016).

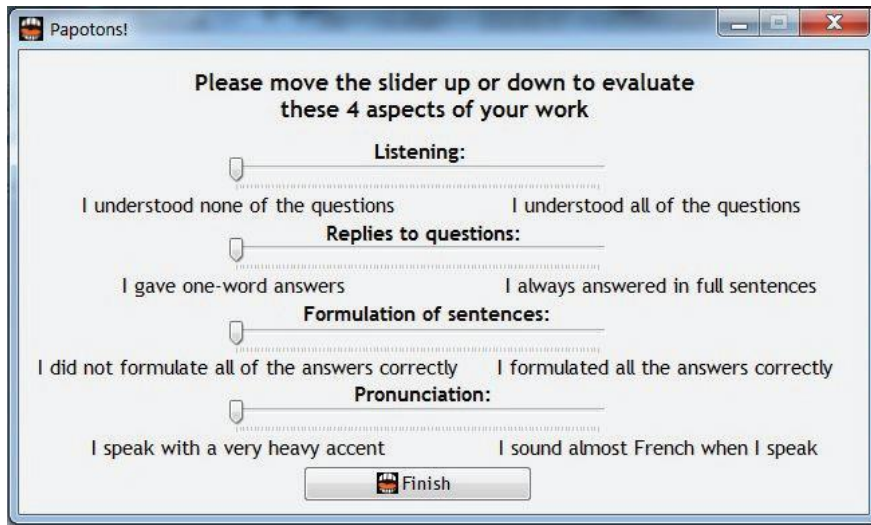


Figure 2. Self-assessment criteria. Screen shot of criteria for student self-assessment to be done after the simulated conversation (Authors Y, 2016).



You are a student. You have just recently learned about an opportunity (scholarship, job, something else) that requires a letter of recommendation as part of the application. **Take a minute to think and imagine what this opportunity could be.** Unfortunately, the letter of recommendation is due in **3 days**. You approach one of your instructors during their regular office hours, hoping to get a letter of recommendation. In this course, you have displayed an **excellent** academic performance and **regular** course attendance. Your instructor's name is Dan Gordon.

Record

Stop

Figure 3. Screenshot of video 1 in *Simulated Environment 2*.



Choose the response that best matches the audio you just recorded.

- [You greet the instructor]
- [You greet the instructor and ask how he is doing]
- [You greet the instructor and ask if you can come in]
- [You greet the instructor and ask if instructor has time to talk]
- [You greet the instructor and indicate that you need something or have a question]
- [You greet the instructor and ask for a recommendation letter, NOT saying when it is due]
- [You greet the instructor and ask for a recommendation letter, saying that it is due in 3 days]

Next

Figure 4. Screenshot of the response options after video 1 in *Simulated Environment 2*.

You wake up and see this text message from your boss:

Good morning! 😴zZ On your way to work 🚗 would you mind picking me up some breakfast? Maybe a drink and something to eat. ☕🍴 Only if it's not too much trouble!

You rush to the coffee shop. Ready to order?

 SPEAK WITH THE BARISTA 



MENU

- Coffee ☕
- Cappuccino ☕
- Latte ☕
- Mocha ☕
- Tea 🍵
- Bagel 🍞
- Croissant 🍞

Figure 5. Screenshot of the Coffee Shop task page in *Simulated Environment 3*.

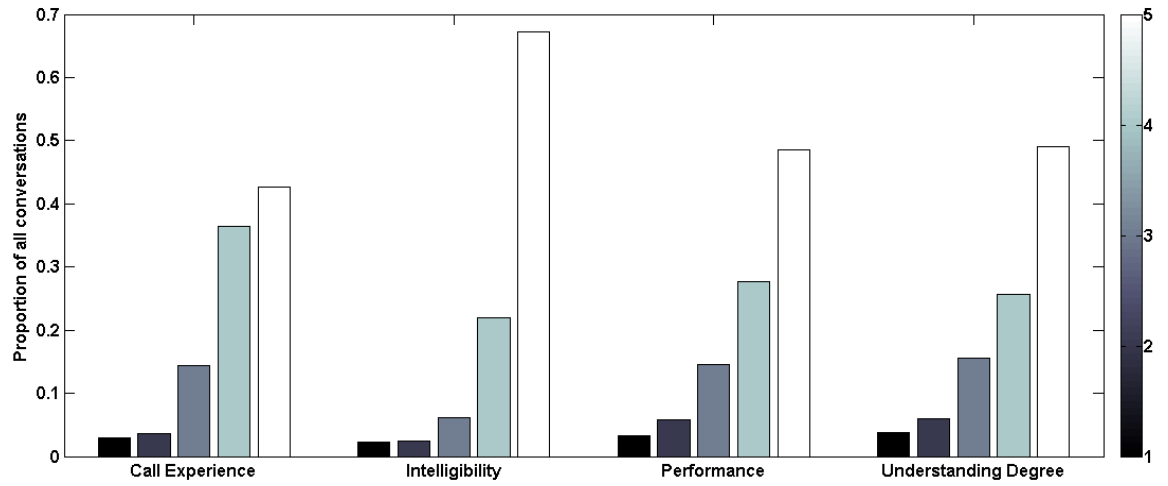


Figure 6. Histogram of different self-reported user experience metrics in *Simulated Environment*

3. Participants rated each metric on a Likert scale from 1 (least satisfactory) to 5 (most satisfactory).

Table 1. SDLI - Descriptive Statistics per Factor and Round of Data Collection

	<i>N</i>	<i>M</i>	(<i>SD</i>)	<i>M</i>	(<i>SD</i>)	<i>p</i>	<i>Cohen's d</i>
		round 1		round 2			
Learning motivation	21	4.26	(0.47)	3.82	(0.90)	0.06	0.92
Planning & implem.	21	3.65	(0.67)	3.52	(0.80)	0.39	0.20
Self-monitoring	21	3.80	(0.64)	3.69	(0.88)	0.49	0.17
Inter-personal comm.	21	3.61	(0.69)	3.33	(0.74)	0.16	0.40

Note. Of 48 students only 21 completed both questionnaires, which are used here.

Table 2. Learner Attitudes Towards *Simulated Environment 2*

	Intermediate-level ESL Students (N = 14)	Advanced-level ESL students (N = 11)
1. Videos represent real-life interaction		
Yes	79% (11)	81% (9)
Mostly yes	7% (1)	19% (2)
No	14% (2)	0
2. I would produce similar responses in a real situation		
Yes	71% (10)	82% (9)
Mostly yes/depends	7% (1)	18% (2)
No	22% (3)	0
3. It was easy to choose an option matching my oral response		
Yes	43% (6)	73% (8)
Mostly yes	29% (4)	18% (2)
No	14% (2)	9% (1)
Answer not clear	14% (2)	

Table 3. Number of Changes between Pretest and Posttest.

	Model		Personal	
	Form	Content	Form	Content
Three Days Simulation				
Total	7	35	0	11
Range	0-5	1-5		0-3
One Week Simulation				
Total	7	48	3	12
Range	0-2	0-8	0-2	0-2

Note. In “Three Days” simulation, the recommendation letter was due in three days; in “One Week” simulation, the letter was due in a week.

Table 4. Distribution of the L1 backgrounds of the Amazon Mechanical Turk participants who interacted with the Coffee Shop task.

L1	Number of Mechanical Turk Participants
Hindi	222
Spanish	115
Tamil	113
Telugu	78
Malayalam	64
Portuguese	31
Gujarati	18
Marathi	14
French	14
Urdu	12
Other	168

Table 5. A Description of the User Experience Metrics Participants were Asked to Rate.

User Experience Metric	Question posed to the participant
Call Experience	How was your overall call experience?
System performance	How satisfied were you with the way the system worked?
System understanding degree	How well did the system understand what YOU were saying?
Intelligibility of system responses	How easy was the system to understand?

Table 6. Summary of Factors Influencing Program Design

Factor	<i>SE1</i>	<i>SE2</i>	<i>SE3</i>
Context	Design and evaluation: oral (pragmatic) practice of the standard variety of French with South African students	Design: oral pragmatics practice Evaluation: communicating appropriately in US academic environments	Design: oral speaking and pragmatics practice Evaluation: global English speakers purchasing food and drink in a prototypical coffee shop in an English speaking environment
Target learner	Beginner, learning French in non-target environment	All levels - depends on the task, ESL	All levels – depends on the task, ESL
Designer goals	Address the local learner needs; include basic aspects of pragmatics in addition to oral communicative competence	Design for general need for oral pragmatics practice; then evaluate for a given context	Design for general need for oral communication and pragmatics practice; then evaluate for a given context
Learner goals	Opportunities to practice speaking at beginner level	Practice oral communication with target language speakers; prepare for communication in academic environment	Speaking practice across a wide range of common linguistic functions in an everyday and workplace environment
Primary focus on LOTS or HOTS	LOTS in simulations; HOTS in class following the use of simulations	Depends on the task; LOTS & HOTS in the given task	Depends on the task; primarily LOTS in the given task
Available technology	Low resource educational environment	Educational environment with additional technology resources; conscious exclusion of ASR and NLP	Access to cloud-based technology; conscious inclusion of ASR and NLP and steps for capitalizing on such technology's strengths
Instructional elements included	Output opportunities Modelling (program, peer) Feedback (peer, teacher) Self-evaluation	Output opportunities Modelling Implicit feedback	Output opportunities Task completion feedback

