Is Rosetta Stone the future of language learning?

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A(n important) side note...

- The study reported here was conducted with Rosetta Stone’s knowledge and technical support.
- They were not involved in the design, data collection or analysis.
- The Rosetta Stone licenses were purchased at regular price.
Why this study?

- Omnipresent and powerful marketing* makes Rosetta Stone ...
  - Enticing to the average language learner
  - Tempting to administrators
  - Appealing to educators?
  - *The best known language program on the market

*“Rosetta Stone ... spent $98.5 million on advertising in 2011, up from $70.5 million in 2010, according to Kantar Media”

What do academic reviews of Rosetta Stone say?

- **Lafford, Lafford & Sykes (2010)**
  - Evaluate if programs provide the tools necessary for effective language learning, based on features that research has shown to be important (interaction, relevant contextualization of language, etc.)
  - “… these products do not incorporate a number of the [necessary] research-based insights (e.g., the need for culturally authentic, task-based activities) that informed SLA scholars might have given them.”

- **Santos (2011)**
  - Lack of context
  - General inability to respond to spontaneous student speech
  - What *Rosetta Stone* calls interaction is “a rather poor and limited version of what one would encounter in a real-life conversation”

- **DeWaard (2013)**
  - “Not a viable replacement of current instruction at the postsecondary level”
  - Based on personal experience, professional reactions
What do empirical studies show?

• **Vesselinov (2009)** – commissioned by Rosetta Stone; RS beginning users demonstrated increased knowledge of the language after 55 hours of use

• **Nielson (2011)** – self-study programs in workplace; some success but remarkable attrition; lack of community (e.g., Rovai, 2002)

• **Stevenson & Liu (2010)** – lack of ability to engage learners in true interaction; users do not take advantage of Web 2.0 tools to network

• **This study** – Phase 1 of analysis indicated that first-semester gains in some areas are comparable between RS users and a classroom control.
Participants

• Participants were University of Florida students enrolled in Beginning Spanish 1 (avg. age = 20)
  • L1 English
  • No other L2 proficiency (beyond h.s. requirement)
  • Course designed for those with NO prior Spanish instruction

• Participants belonged to one of 3 environments:
  • Classroom (C): N=4
  • Rosetta Stone (RS): N=4
  • Classroom+Rosetta Stone (RS+C): N=4

Original population had 20-25 participants in each of the three groups.
Participants

Control (Classroom) group (C)

• In-tact section of Beginning Spanish
• Followed regular syllabus with standard materials
• Carried out standard classroom assessment materials
• Met with researcher 3x during semester
Participants

Rosetta Stone group (RS)

• Self-selected (required by IRB)
• Not required to attend any regular class
• Used *Rosetta Stone package* (“Conversational Spanish”):
  • 16-week course designed to cover material comparable to a face-to-face beginning class
  • 6 units of *Rosetta Stone®* Version 4 TOTALe® Spanish, each has 4 lessons [Level 1, half of Level 2]
  • Minimum of 6 Rosetta Studio™ sessions
  • Minimum of 8 hours in Rosetta World™
  • Monitoring of program access and time on task
• Followed predetermined deadlines in progressing through the material
• Met with researcher 3x during semester
Participants

Classroom + Rosetta Stone group (RS+C)

- In-tact section of Beginning Spanish class
- Same instructor as control group
- Used *Rosetta Stone* materials as their textbook (including all features described for RS group)
- Met with researcher 3x during semester
Data collected

- General oral and written proficiency and skills
  - January, March, May

- Partial CLEP test (30 items)
  - May

- Versant Automated proficiency test
  - May

- Assessment of attitudes
  - January, May

- Discussion of experiences
  - January, March, May
Phase 1 Results: CLEP test

Average scores (converted to %)

<table>
<thead>
<tr>
<th></th>
<th>Classroom</th>
<th>Rosetta Stone</th>
<th>RS+class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Score</td>
<td>38.65</td>
<td>39.17</td>
<td>47.50</td>
</tr>
</tbody>
</table>

$p = 0.165$
Phase 1 Results: Versant test

Average scores (converted to %)

- Classroom: 27.08%
- Rosetta Stone: 26.25%
- RS + Class: 20.00%

*p = 0.615*
PHASE 2 ANALYSIS
INTERVIEWER: Cuéntame, ¿qué te gusta hacer en tu tiempo libre, o los fines de semana?
SL: Repitas, please.
INTERVIEWER: ¿Qué te gusta hacer?
SL: Qué te gusta hacer... 
INTERVIEWER: ¿Te gusta ir a películas? ¿Te gusta escuchar música?
SL: Uh, ¿fin de semana?
INTERVIEWER: Sí.
SL: Uh, sí. En fin de semana, yo... yo estudio, uh, mucho.
INTERVIEWER: ¿Sí?
INTERVIEWER: ¿Cuál fue la última película que viste?
SL: Cuál te...
INTERVIEWER: La última vez, the last time, que viste una película.
SL: Phew... Hmm. Let’s see... dos meses.
INTERVIEWER: Meses, mhm.
SL: Meses. Ago. ¿Cómo se dice “ago”?
INTERVIEWER: Hace. Hace dos meses.
SL: Hace, sí.
INTERVIEWER: Wow.
SL: Yo no... yo no veo muchas películas en Gainesville.
INTERVIEWER: ¿Qué película fue esa, hace dos meses? ¿Cómo se llamaba?
SL: Uh, el peli—la película... ¿cómo se dice “was”?
INTERVIEWER: Era, o fue.
SL: Era. La película era... 
INTERVIEWER: ¿No te acuerdas?
SL: Yo no... sí.
INTERVIEWER: ¿y qué haces en Gainesville?
SH: Um... you’re going to have to forgive me, my mind’s like blown... Um, yo estoy estudiando.

INTERVIEWER: ¿Tú estudias? ¿Y qué más?
SH: Yo trabajo en un restaurante de Dragonfly.

INTERVIEWER: Y, ¿con mucha frecuencia, vas de compras?
SH: Yo no entendí, repetirlo, por favor.

INTERVIEWER: ¿Con mucha frecuencia, vas de compras? “Ir de compras” significa go shopping.
SH: All right, say that one more time, please.

INTERVIEWER: ¿Con mucha frecuencia, vas de compras?
SH: Uh, no, uh, no voy a... what did you, how did you say “to go shopping”?

INTERVIEWER: Ir de compras.
SH: No voy de compras.

INTERVIEWER: Y, ¿qué vas a hacer este verano?
SH: Este verano, yo voy a visitar Brazil.

INTERVIEWER: Vas a visitar Brazil, y ¿vas a estudiar en Brazil?
SH: No, um, yo voy a trabajar en Brazil.

INTERVIEWER: Y, em, ¿qué más vas a hacer en Brazil? ¿Vas a leer, vas a jugar deportes?
SH: What am I going to do in Brazil? I thought I just answered that.

INTERVIEWER: ¿Solo trabajar?
SH: I don’t know, I’m going on a missions trip, I don’t know how to express that in Spanish, but...

INTERVIEWER: Pues, buena suerte, muchas gracias.
Fluency analysis

- **All interviews**
  - 3 groups x 4 participants = 12 participants x 3 interviews = 36
  - Transcribed and analyzed for fluency measures

- **“Fluency”**
  - Total number of words spoken
  - Number of Spanish words; Number of English words
  - Number of dysfluencies
  - Lexical density (number of unique Spanish words)
  - Number of fillers/non-lexical items
## General observations

<table>
<thead>
<tr>
<th>GROUP</th>
<th>Total # words</th>
<th># Spanish words</th>
<th># Fillers</th>
<th>Repetitions/false starts</th>
<th>#Unique words</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom Average</td>
<td>147.78</td>
<td>109.97</td>
<td>16.14</td>
<td>2.81</td>
<td>50.22</td>
</tr>
<tr>
<td>RS+C Average</td>
<td>90.61</td>
<td>47.53</td>
<td>8.33</td>
<td>2.14</td>
<td>27.22</td>
</tr>
<tr>
<td>RS Average</td>
<td>131.21</td>
<td>88.53</td>
<td>8.72</td>
<td>5.54</td>
<td>45.32</td>
</tr>
</tbody>
</table>
Ratio of L1/L2 words

0 = no English words produced
1 = 1 English word produced for every Spanish word
Assistance requests

Average # of clarification / assistance requests by group

# Clarification requests in Spanish

- Control Average
- RS + class Average
- Rosetta Stone Average
Assistance requests

Average # of clarification / assistance requests by group

<table>
<thead>
<tr>
<th># Clarification requests in Spanish</th>
<th># Clarification requests in English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Average</td>
<td>RS + class Average</td>
</tr>
<tr>
<td>Rosetta Stone Average</td>
<td></td>
</tr>
</tbody>
</table>

- Control Average: 2.06
- RS + class Average: 0.61
- Rosetta Stone Average: 0.11
- Average: 1.03
- Average: 1.75
- Average: 3.24
Other considerations (1)

Language learning motivation

• All learners indicated that their primary motivation was to fulfill their language requirement

• One third (4/12) reported that they chose Spanish, specifically, as a language that would be useful in their particular careers

• RS volunteers participated out of curiosity or convenience, but shared same degree of language learning motivation.
## Motivation – Classroom Group

<table>
<thead>
<tr>
<th>Group</th>
<th>High school language background</th>
<th>Why Spanish?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom</td>
<td>No Spanish French 3</td>
<td>I am required to take a language for my major.</td>
</tr>
<tr>
<td>Classroom</td>
<td>No Spanish Latin 3</td>
<td>Language requirement and for myself since I feel Spanish is a good asset as a physician.</td>
</tr>
<tr>
<td>Classroom</td>
<td>No Spanish</td>
<td>Fulfill [college requirement].</td>
</tr>
<tr>
<td>Classroom</td>
<td>No Spanish Latin AP</td>
<td>I am going to Panama on a service trip. I believe formal classes would help me gain a better grasp of the language than picking it up on my own.</td>
</tr>
</tbody>
</table>
## Motivation – RS+C Group

<table>
<thead>
<tr>
<th>Group</th>
<th>High school language background</th>
<th>Why Spanish?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rosetta Stone + Class</td>
<td>No Spanish</td>
<td>I am taking Spanish because I feel like it will be beneficial later on in life.</td>
</tr>
<tr>
<td>Rosetta Stone + Class</td>
<td>No Spanish</td>
<td>As a requirement and to benefit my future jobwise.</td>
</tr>
<tr>
<td>Rosetta Stone + Class</td>
<td>No Spanish French 2</td>
<td>I need two semesters of a foreign language to graduate.</td>
</tr>
<tr>
<td>Rosetta Stone + Class</td>
<td>No Spanish French 4</td>
<td>College requirement.</td>
</tr>
</tbody>
</table>
# Motivation – RS Group

<table>
<thead>
<tr>
<th>Group</th>
<th>High school language background</th>
<th>Why Spanish?</th>
<th>Why volunteer for RS?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rosetta Stone</td>
<td>No Spanish</td>
<td>Foreign language requirement.</td>
<td>Heard a lot of good things about Rosetta Stone so decided to try it.</td>
</tr>
<tr>
<td>Rosetta Stone</td>
<td>No Spanish Latin 3</td>
<td>CLAS requirement</td>
<td>Can better manage my time and schedule and move more at my own pace without dealing with class.</td>
</tr>
<tr>
<td>Rosetta Stone</td>
<td>No Spanish French 2</td>
<td>Required for major.</td>
<td>Sounded beneficial.</td>
</tr>
<tr>
<td>Rosetta Stone</td>
<td>No Spanish ASL 3</td>
<td>Spanish is useful in my state/needed FL requirement.</td>
<td>I was going to use my own to supplement education anyway.</td>
</tr>
</tbody>
</table>
Other considerations (2)

Time on task

<table>
<thead>
<tr>
<th>GROUP</th>
<th>Completion Rate</th>
<th>Average Score</th>
<th>Total Course Usage (hours)</th>
<th>Total Class Time (hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom</td>
<td>96.99%</td>
<td>90.77%</td>
<td>70.00</td>
<td>39.00</td>
</tr>
<tr>
<td>RS+C</td>
<td>93.67%</td>
<td>98.63%</td>
<td>32.81</td>
<td>37.25</td>
</tr>
<tr>
<td>RS</td>
<td>97.67%</td>
<td>95.88%</td>
<td>30.69</td>
<td>NA</td>
</tr>
</tbody>
</table>
Other considerations (3)

Attitude survey

• Few changes (pre-post) in any group
  • Significant changes (RS+C, C) on item #3:
    • “I am enjoying my Spanish-learning experience this semester.”
  • Significant changes (RS) on item #11:
    • “Interacting via chat or telephone is comparable to interacting face-to-face.”
  • Changes (RS, RS+C) on item #19:
    • “I would prefer to learn a language on my own time and at my own pace than in a group or classroom setting.”
Conclusions

• Across environments...
  • Comparable outcomes on some measures
  • Different development of conversational skills, discourse strategies
  • Skepticism is justified

• More research (always!) needed
  • Larger, more varied sample size
    • Different proficiency levels
    • Broader student group
  • More sensitive/appropriate testing measures
  • Assess cultural awareness and competence
Thank you.
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  • UF College of Liberal Arts and Sciences
  • UF Humanities Scholarship Enhancement fund
  • Carlos Enrique Ibarra (statistics)
  • Caroline Reist, Keegan Storrs, Diana Wade (RA)
  • Laura Bradley (Rosetta Stone)


Rosetta Stone interface
Rosetta Stone interface (vocabulary)
Rosetta Stone interface
(grammar)
Rosetta Stone interface
(pronunciation)
un correo electrónico
un correo electrónico
Rosetta Stone interface
(World – “play”)

Want to talk?
Identi lets you practice your listening, typing, and speaking skills!

Sharpen your language skills with fun games!
Rosetta Stone interface

(World – “talk”)
Un desayuno en México

¡Buenos días! Me llamo Beatriz, soy maestra y soy de Guadalajara, México. Vivo con mi esposo y con mis hijos en una casa en la ciudad, cerca de un parque y de la casa de mis padres. Mi esposo y yo trabajamos de lunes a viernes y mis hijos estudian. Antes de ir a la escuela mis hijos desayunan leche y cereal. Mi esposo y yo desayunamos pan y café y corremos al trabajo.
Rosetta Stone interface

(Studio)