

I was playing when I learned

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Developing a Narrative Game for Learning French Aspectual Distinctions

Motivation

Instructional software with narrative and game elements has been shown to increase motivation and enjoyment.

(Habgood et al. 2005)

Learning aspect in French past tense (imparfait and passé composé) is challenging because rules are difficult to apply.

(Salaberry 1998)

Overall Research Question

What are the effects of adding narrative and game elements on students' motivation and learning of French aspect?

Summer Research Question

How can narrative and game elements be implemented into an existing second language learning tutor?

Game Design

Student works as a journalist for a French newspaper editing newspaper articles

Step 1: Students select articles and can view progress information

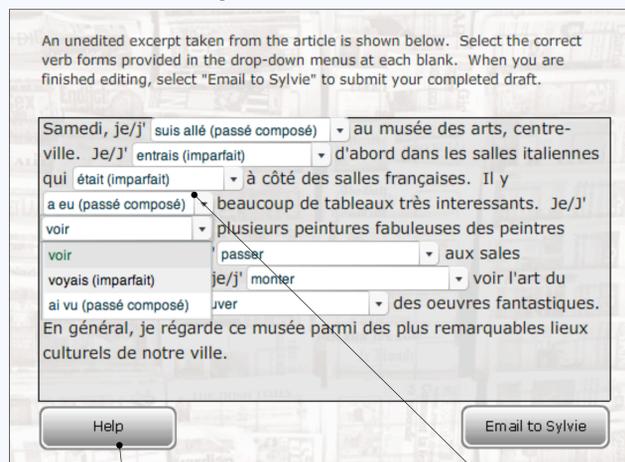
Step 2: Students complete article revisions by choosing verb forms

Step 3: Students receive feedback email from boss describing their errors



Job title, salary, and time information

Article selection using legends



Help button shows instructional content

Verb aspect selection to edit article



Email format includes identity, time elements

Student must correct mistakes

Think-Aloud Evaluation

Think-Aloud protocols with four participants - 2 beginning French students, 1 French expert, 1 Human-Computer Interaction expert

Game Design Decisions

Promotions emphasized as narrative version of levels that contribute to game identity

Earnings emphasized as narrative version of points that offer a common metaphor (earning money)

Players choose difficulty level and take risks to earn greater monetary rewards

Reminders of current time and time left create pressure to work efficiently

Participant Reactions

"Yay, promotion!" (P3)

"Okay, I have to get 100€ for a promotion, so I'll pick an article with two euro signs." (P1)

"Even though I know I can choose topics, at some point, it's all about making a lot of money" (P3)

"Perhaps if there are less euro signs, it'll be easier, so I'll click yellow ... [on a different article] I guess there are more questions on the harder ones." (P1)

"Oooh, only one hour left, so I'm just going to for the big bucks!" (P1)

"I spent 3 hours and 53 minutes editing that article!?" (P2)

Learning Sciences Decisions

Instruction provides concise, easy to remember rules to facilitate easy recall

Pointers to verbs (eg *Look over your use of the verb "être".*) help students find errors

One-level hints relate question-specific information to general grammar rules

Provide no more than 3 suggestions to avoid overloading working memory and screen layout

Participant Reactions

"Okay, 'Mozart was born' that's definitely already completed, at least I hope." (P2)

"Pendant que ... this is imparfait because it's describing the context." (P4)

"If I were a student who didn't really want to learn, I'd just guess, check to see my mistakes, and then go back to change them ... especially with having only two choices." (P3)

"Of course now she's telling me all of what was wrong." (P2)

"So ... I only got two out of six, but there are only three suggestions, so I guess there's another mistake. I'll change 'passer' and 'être' and let's see what the other one is." (P1)

Design Implications

- Revise feedback structure using multiple levels
- Make instructions more accessible
- Create more sophisticated salary scale
- Make time information more salient

Proposed Evaluation

	No Game Elements	Game Elements
No Narrative Framework	Tutor	Game Elements
Narrative Framework	Narrative Framework	Narrative Game Elements

Hypotheses

Game and narrative elements will motivate students to continue interaction. Therefore, students will better understand the uses of French aspect and be able to apply this knowledge in context.