Pre-test Computer	126	4,48	0,40
Post-test Computer	126	5,74	0,35

Table 3. Tests of model effects; POSITION

	p
GROUP	,492
TEST	,000
GROUP * TEST	,120

Table 4. Tests of model effects; CONCEPTS

	p
GROUP	,641
TEST	,000
GROUP * TEST	,914

From Tables 3 and 4 is possible to see that *there was no significant GROUP effects*, that is, the students playing with Cards and with the Computer had equivalent test performances. Regarding the hypothesis of this investigation, we found no difference when the interaction GROUP*TEST (computers/cards and pre-test/post-test) was analyzed. It means there were no differences if students play the game on the computer or with cards.

There was, however, a significant difference in the TEST variable (before and after playing the game) which points to the conclusion that the game was effective as a learning tool. It was somewhat surprising, however, that students had improved their performance (on the post-test) in the CONCEPTS part of the test.

As the statistical analyses excludes the mere luck possibility, we consider there are two non-exclusive explanations: (1) the students remembered the text in the "tips", available in both versions of the game, therefore answered correctly and/or (2) this improvement might be related to an increased attention and focus on the subject, consequences of engagement and motivation. Perhaps engagement and motivation brought up uncovered memories about the subject, which would remain uncovered unless students actively tried to bring these pieces of information together.

7. Conclusions

In this paper we presented an evaluation of learning outcomes with different versions of the same game - a computer version and a printed cards version. The hypothesis that the learning outcomes would be the same for both groups was verified.

These results are framed within the method-not-media hypothesis, proposed by C lark (1983, 1994), as they confirm it, and can be counted as yet more evidence that media does not influence learning outcomes, as S ung & Mayer (2003) and more recently, Furió et al. (2015) also concluded.

Lots of advances on the technical possibilities and an ever increasing access to technology have been happening since C lark posed his hypothesis. Back in the 80's, it was extremely expensive and difficult to design (and deliver) educational games. Besides, video games were not as part of our life as they are now – and for this reason designing a good game, with an interesting mechanics was even more difficult than it is today. So we consider reasonable to speculate that the quality of the video games produced today would positively evoke affective state - and perhaps this could be a long lasting effect.

Some limitations on this study restrain the generalization of these results, as listed.

- All students were from the same school, and 4 out of 5 classes had the same teacher. While this is a positive feature of this experiment – because it controls the effects of the independent variable "teacher" – it also borders the conclusion to the students of that particular school.

- We did not test the games against the "traditiona l" method of instruction, i.e. giving a group 50 extra minutes of lecturing on the subject. We did not do that because the sample size would have to be bigger to accommodate one more group in the model.

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