Résumé de l'article prochainement soumis à la revue internationale « Computers in Human Behaviour »

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Abstract. This paper is a part of a project, which aims to design a forest simulator in virtual reality (VR). The goal of the present experiment was to test a multimedia, "principle" in order to apply it in an immersive live forest simulator. To investigate the influence of (de)-synchronization between narrated text and dynamic pictures in VR, we used a multimedia lesson about organic matter decomposition. The lesson was presented in the form of a non-immersive VR video. The effect of five temporal contiguity conditions was tested on recall and comprehension, involving 228 high school participants. Within the multimedia presentation, the delays between the words of the narration and the corresponding dynamic pictures of the animation were respectively: -6, -2, 0, +2, +6 seconds. Participants were also eye-tracked during the learning time. Result showed a significant effect of temporal gaps in 12 years' children, thus extending previous research. Even a - 2 sec. delay was detrimental to learning, mediated by working memory; there was an asymmetry between negative and positive delays.

