# Advances on the Understanding of Sequence Convergence Seen from the Perspective of Mathematical Working Spaces

**Authors :** Paula Verdugo-Hernandez, Patricio Cumsille

**Abstract :** We analyze a first-class on the convergence of real number sequences, named hereafter sequences, to foster exploration and discovery of concepts through graphical representations before engaging students in proving. The main goal was to differentiate between sequences and continuous functions-of-a-real-variable and better understand concepts at an initial stage. We applied the analytic frame of mathematical working spaces, which we expect to contribute to extending to sequences since, as far as we know, it has only developed for other objects, and which is relevant to analyze how mathematical work is built systematically by connecting the epistemological and cognitive perspectives, and involving the semiotic, instrumental, and discursive dimensions.

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