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# **TEACHING OF THE YUPANA WITH THE TAWA PUKLLAY METHOD FOR DEVELOPING THE COMPUTATIONAL THINKING IN CHILDREN**

Tesis para optar el título profesional de Ingeniero de Sistemas

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# **Teaching of the Yupana with the Tawa Pukllay method for developing the Computational Thinking in children**

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**Abstract**—The present research aimed to assess if the teaching of the Yupana using the Tawa Pukllay method developed by Prem [16] enables to develop the computational thinking (CT) in children of 10 and 11 years old. For this purpose, a quasi-experiment with 52 children of two elementary schools located in Lima, Peru was performed. The obtained results were statistically significant showing that the experimental group, comprised with the students who were trained with the Yupana improved their CT compared to the control group, in which the students kept doing their regular activities. This highlights the fact that using this ancestral math tool could serve as an instrument to develop the CT in children.

**Keywords**—Computational thinking, Yupana, distance learning, quasi-experiments.

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