Understanding Expert Perception in Software Estimation Effort: a Cognitive Approach Using Software Chunks.

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Abstract: Expert-based estimation is the most common and preferred method to estimate the effort for software development project because it is fast, less expensive and reasonably accuracy. Expert software developers use his intuition and experience during effort estimation task. Estimation by analogy of features is also used to compare the new feature to similar in past development. This paper extends recent studies and shows how experts are able to perceive similarities between two features and to categorize their complexities using software chunks with semantics information based on their intuition and perception of software features cues. The results of this experiment showed experts judgment and analogy to estimate features effort are almost identical and accurate when compared to actual project. The current research proposes a cognitive model to explain expert judgment and analogy for software development effort estimation.