For instance, research has demonstrated that both the knowledge and regulation components of metacognition can be measured via self-report inventories (Pereira-Laird & Deane, 1997; Schraw & Dennison, 1994). As self-regulatory constructs are further delineated, researchers will need measures of metacognitive processes to facilitate theoretical and predictive models of self-regulation.

Unlike inventories used with older learners, such as the Metacognitive Awareness Inventory (MAI) (Schraw & Dennison, 1994) or the Motivated Strategies for Learning Questionnaire (MSLQ) (Pintrich, Smith, Garcia, & McKeachie, 1991), and the Learning and Study Strategies Inventory (LASSI) (Weinstein, Schulte, & Palmer, 1987) that have undergone assessment for psychometric properties, less is known regarding self-report inventories of metacognition for use with younger learners. Such inventories are often developed for a specific one-time use and are rarely compared to other measures of metacognitive processing or to achievement.

Research on children's metacognition generally employs one of two frameworks although other conceptions of metacognition are present in the literature (e.g., Nelson & Narnes, 1996). One framework, initiated by Flavell (Flavell, 1979; Flavell, Miller, & Miller, 1993), presents metacognition as including metacognitive knowledge and metacognitive experiences. Metacognitive knowledge includes task, person, and strategy components. Metacognitive experiences include feelings of understanding and may be the impetus for strategy implementation (Flavell, 1979). In later writings Flavell and colleagues referred to these components as metacognitive monitoring and self-regulation (1993).

The second framework initiated by Brown (1978), and further delineated and discussed in later work (Baker & Brown, 1984; Cross & Paris, 1988; Jacobs & Paris, 1987; Paris, Cross, & Lipson, 1984; Pireira-Laird & Deane, 1987) also suggests two components: Knowledge of cognition and regulation of cognition. The knowledge component includes declarative, procedural, and conditional knowledge of cognition. The regulation of cognition component includes constructs such as planning, monitoring, and evaluation. The current study employs the Brown framework of metacognition as the theoretical foundation.

The Brown framework was chosen for several reasons. First, the instruments developed and tested in the current work are based on an adult measure of metacognition that was developed conceptually from the Brown framework. Second, in Experiment 2, the new instrument, the Jr. MAI, is examined in an initial construct validity study. The other instruments used in Experiment 2 were either developed based on the Brown framework of metacognition or the items on the instruments can be readily classified into the Brown framework. In this way, the Brown framework provides a consistent construct definition for the initial validity examination. Third, the current study