

A Taste of Memorization: Taste and Memory Association Proposal

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It has been rumored in schools that chewing gum, or eating candy, while test taking can help students perform better. Studies have been done on the effects of chewing gum, but not much has been conducted on taste effecting memory and academic performance. Some researchers have discussed the possible role of flavor effecting memory for future studies, but it has yet to be addressed (Smith, 2009). It is known that memories evoked by smell are more pronounced than those evoked by words (Chu & Downes, 2002). It is also known that smell and taste are inversely related (Ravasco, 2005). With smell being the strongest human sense and being able to trigger memories, there is reason to believe that anchoring material in memory through taste is possible (Lane, Smutzer, Smutzer & Doty, 2006) (Erickson & Leide, 1992). Studies of taste aversion confirm that memory can be linked to taste (Núñez-Jaramillo, Ramírez-Lugo, Herrera-Morales, & Miranda, 2010). Linking recognition memory with a taste stimulus may increase academic performance (Bermúdez-Rattoni, 2004). To examine the effects of specifically flavor and memory, a study will be conducted with fourth, seventh, and eleventh graders within the same school district. Students will have consent forms signed by parents and will be asked to acknowledge if their child has any known attention problem prior to study so their results can be removed from data analysis. Half of the participants will be given a colorless taste stimulus, the other half a placebo, then will be asked to watch a standardized video at the same time of day. Students will be given the same stimulus they had while watching the video and asked to take an assessment to see if there is any noticeable relationship between taste and memory.