Motivational Regulation Strategies in Elementary School Populations

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Senior Thesis 2005: Summary of Findings

Background and Purpose

The focus of this study was on children’s knowledge of five specific strategies that middle school, high school, and college students reportedly use to maintain their motivation throughout academic tasks. In particular, we looked at:

1) Environmental Control
   Structuring one’s environment in an effort to avoid or reduce distractions (e.g., turning one’s desk to block a view of the playground outside)

2) Self-Consequating
   Providing oneself with a tangible reward for completing a task (e.g., promising oneself time to play on the computer after finishing a task)

3) Interest Enhancement
   Using fantasy or other techniques to make the task more immediately relevant or enjoyable (e.g., pretending to be a spy figuring out a secret code)

4) Performance Self-Talk
   Thinking about performance goals (e.g., thinking about getting good grades or outperforming others)

5) Mastery Self-Talk
   Thinking about the value of learning and knowing about a given topic (e.g., thinking about all the interesting things one can figure out with math)

Though these “motivational regulation strategies” had been addressed in research with middle school, high school, and college students, there was no such research with elementary school students at the time of our study. This was most likely due to the questionnaire format used in the older grades, a format that would be inappropriate for younger students, particularly those just beginning to read. In our study, we examined knowledge of these five strategies among children at several different elementary school grade levels. We expected to find that older children would have greater knowledge of the effectiveness of these strategies than younger children, especially regarding strategies that involve abstract thought (e.g., performance and mastery self-talk) versus physical transformations (e.g., environmental control).
**Method**

Elementary school children in 1st grade, 3rd grade, and 5th grade participated in this study. A comparison group of college students was also included. Participants were presented with a story about a fictional boy or girl who had to finish a math worksheet before the end of the school day. The character expressly did not feel like doing his or her worksheet. Each participant was asked what he or she would tell the character to do or think about to help him or her finish the worksheet. Subsequently, 10 fictional classmates each offered the character a single strategy that might or might not help him or her finish the worksheet. Five of these strategies were the motivational regulation strategies (environmental control, self-consequating, interest enhancement, performance self-talk, mastery self-talk) outlined above. The other five were potentially ineffective strategies such as drawing on the chalkboard and thinking about the biggest number one knows. Each participant was asked whether each strategy would “help” or “not help” and why.

**Results**

*Were there age differences in overall knowledge of motivational regulation strategies?*

Adults and 5th graders indicated that more of the five motivational regulation strategies would help than did 1st graders and 3rd graders.

*When does knowledge of the five motivational regulation strategies emerge?* (See Table 1)

- 1st graders demonstrated knowledge of environmental control and self-consequating.
- Knowledge of mastery self-talk appeared to emerge in 3rd grade.
- Some knowledge of interest enhancement and a strong knowledge of performance self-talk appeared to emerge in 5th grade.

<table>
<thead>
<tr>
<th>Grade</th>
<th>EC</th>
<th>SC</th>
<th>IE</th>
<th>PST</th>
<th>MST</th>
<th>Total Motivational Regulation</th>
<th>Total Potentially Ineffective</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>100%*</td>
<td>86%*</td>
<td>7%*</td>
<td>43%</td>
<td>71%</td>
<td>61%a</td>
<td>7%</td>
</tr>
<tr>
<td>3</td>
<td>94%*</td>
<td>69%</td>
<td>25%</td>
<td>69%</td>
<td>88%*</td>
<td>69%a</td>
<td>10%</td>
</tr>
<tr>
<td>5</td>
<td>100%*</td>
<td>94%*</td>
<td>56%</td>
<td>88%*</td>
<td>88%*</td>
<td>85%b</td>
<td>6%</td>
</tr>
<tr>
<td>Adult</td>
<td>100%*</td>
<td>94%*</td>
<td>100%*</td>
<td>88%*</td>
<td>96%b</td>
<td>3%</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* EC refers to Environmental Control; SC refers to Self-Consequating; IE refers to Interest Enhancement; PST refers to Performance Self-Talk; MST refers to Mastery Self-Talk; Total Motivational Regulation refers to the total number of Motivational Regulation Strategies eliciting a “Help” response; Total Potentially Ineffective refers to the total number of Potentially Ineffective Strategies eliciting a “Help” response. Percentages significantly
greater than or less than chance performance according to the binomial table (two-tailed, \( p < .05 \)) are marked with an asterisk (*). Percentages in the Total Motivational Regulation column that do not share a subscript differ significantly according to a follow-up Tukey test.

**Conclusions**

This is the first research that has addressed strategies that elementary school students use to maintain their motivation throughout academic tasks (i.e. motivational regulation strategies). As predicted, we found age differences in overall knowledge of motivational regulation strategies whereby older students demonstrated knowledge of more motivational regulation strategies than younger students.

The most exciting conclusions of this study come from the independent analyses of the five motivational regulation strategies. Young children showed striking knowledge of the effectiveness of particular strategies as well as an impressive ability to articulate that knowledge to the researchers: 1st graders demonstrated knowledge of environmental control and self-consequeating, 3rd graders demonstrated knowledge of mastery self-talk, and 5th graders demonstrated knowledge of performance self-talk and (limited) knowledge of interest enhancement. That young children did not recognize particular strategies (e.g., performance self-talk, interest enhancement) as being effective is particularly interesting in terms of practical applications in the classroom. It is either the case that these strategies are not, in fact, effective for young children, or that they may be quite effective but young children simply have not yet learned how to use them. We are looking forward to addressing these alternate explanations in future research on this topic.