Motivating Attention and Emotions in a Short Term Task: Research Findings and Implications for the Classroom

A project ran by the Department of Psychology and Behavioural Sciences

Coventry University

Overview: This project investigated the effects of different types of **motivation** (see key concepts over page) and **competence** feedback on **attention** and **emotional responses** over three tasks each lasting 4 minutes. Experiments on students from primary, secondary, and higher education showed confidence to be the main influence on performance and attitudes towards the tasks. Therefore, teachers are encouraged to nurture confidence and self-improvement in the classroom to optimise positive experiences and attention.

Summary of Findings:

♦ Feedback of success and/or approach (rather than avoidance) orientated motivation led to greater enjoyment and positive feelings towards the 3 x 4 minute tasks.

♦ Mastery approach goals that emphasised self-improvement prevented any drops in task performance when confidence was low.

♦ High competence conditions tended to improve sustained attention and positive emotional experiences.

♦ Even after practice effects, all groups improved their scores from over the 3 tasks, with no significant loss of attention over the 3 x 4 minute tasks (total session was 45 mins with measurement taken over 12 mins). Motivational goals were introduced after task 1 and difficulty level increased in task 3.

♦ Attention skills significantly increased from primary to secondary and again in higher education.

What do these findings mean for the classroom? - (refer to example lesson plans)

♦ To maintain attention and a positive attitude, class tasks should be structured with timely breaks approximately every 4 minutes (more frequent with younger students) to allow for regular feedback that will: 1) refocus attention on task skills, 2) allow for reflection on personal skill development, 3) reinforce self-improvement goals, and 4) maintain competence. For example, some feedback could be *"Listen in please! Well done so far. Continue focusing on the parts and skills of the task* discussed earlier (repeat if necessary). *Check or reflect back on what you have done so far to note your improvement. By putting in effort and practicing hard you will improve even further."*

♦ Task breaks should also allow for variety to be introduced. So, after first practicing the skills of a task, self-marked personal improvement scores can then be introduced that are based on previous attempts at the task. When individual scores are maximised at one level of difficulty, students can be offered further challenges of greater complexity. For example, after a sentence writing task of constructing 3 sentences, these can then be self-marked using a given marking criteria. The student can then be set the challenge of writing 3 different sentences to see if they can improve on their own score. When appropriate, the final challenge would be offered based on writing 3 more sentences with added marks for greater complexity (relating to grammar, word selection, style, etc). These principles can be adapted to any task.

Research Methods:

Over 700 students from 3 primary schools (n=144; age 8-11 yrs.), 2 secondary schools (n=250; age 11-18 yrs.), and 2 institutes of higher education (n=308; ages 18-35 yrs.) took part in two phases of research funded by the Nuffield Foundation. In Phase 1 university students were randomly allocated to one of four motivational climates (see below) and one of two competence conditions (feedback indicating success or failure of set goals). Participants completed an attention task 3 times and responded to questions on their emotional state. Phase 1 was undertaken individually in a laboratory. Phase 2 took place in the natural setting of the classroom with up to 32 students tested simultaneously. Phase 2 included a greater age range to investigate developmental trends in attention.

Key Concepts:

Past research has supported the model that there are 4 main types of **motivational climate** in the classroom...

1. Mastery Approach—an emphasis on learning to improve on one's own skills at a task (*strongly encouraged*)

2. Mastery Avoidance—an emphasis on learning to avoid doing worse than previous attempts at a task.

3. Performance Approach—an emphasis on outperforming peers at a task

4. Performance Avoidance—an emphasis on avoiding doing worse than peers at a task

Types of **attention** tested for were:

1. Sustained attention—maintaining attention on a task over time

2. Selective attention—focusing on the object of the task whilst ignoring distracters

3. Switching attention — moving focus of attention from one stimulus to another

Further Reading

Sage, L. (2014). Why motivation? An Achievement Goal perspective to research and teaching. *Education Today*, *64* (3),

Sage, L., Stanley, D., Krastev, I. (in preparation). The effect of motivation, competence, sex and level of education on attention: A developmental perspective across primary, secondary and higher education, *Available on request from contact below.*

Contact:

For a more detailed account of what the results identified, how they should be applied to teaching contexts, or further information on any other issues raised here, please contact the principle investigator:

Dr Luke Sage, Department of Psychology and Behavioural Sciences, Coventry University, Priory Street, Coventry, CV1 5FB, email: Luke.sage@coventry.ac.uk, tel: 02477658208.

Nuffield Foundation