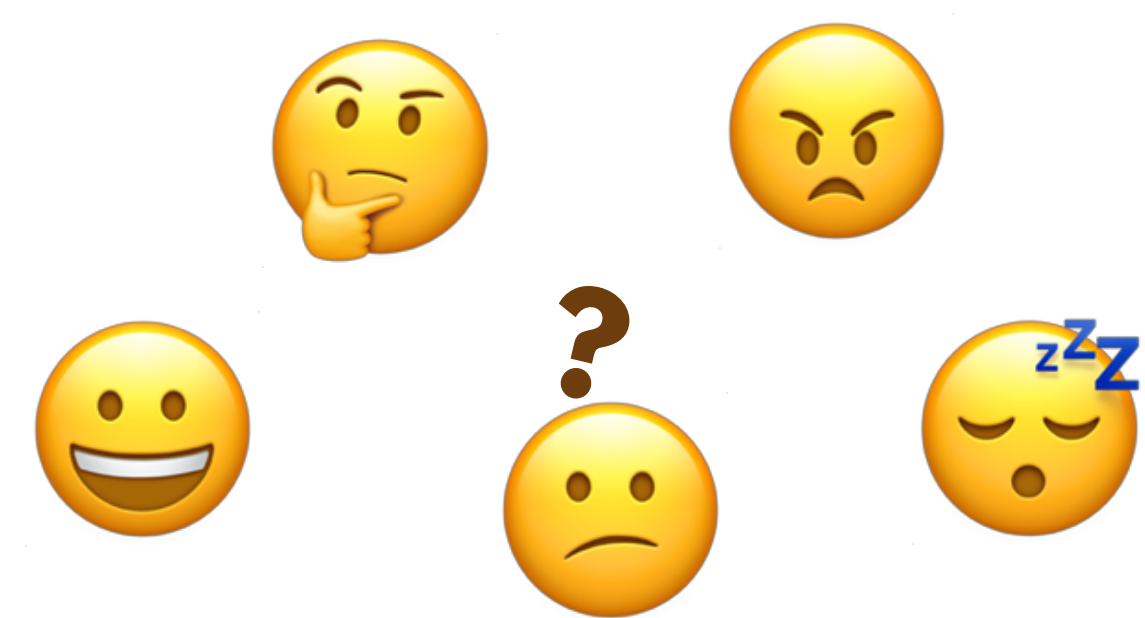


FRUSTRATED BUT FOCUSED: AN ASSESSMENT OF CHILDREN'S SELF-REGULATION FOR LEARNING DURING WRITING

SIMON LISAINGO, NANCY PERRY, NATASHA PARENT, NIKKI YEE, & XINKE WAN



INTRODUCTION

PURPOSE. We present data from a larger longitudinal study of children developing self-regulated learning (SRL, from kindergarten through Grade 6). Here we focus on researchers' and teachers' collaborative design and implementation of an embedded assessment of SRL during classroom writing activities when children were in Grade 3.

We asked:

- What does the assessment reveal about children's SRL; and,
- How do children's descriptions of negative affect and strategies for coping with challenge vary across classrooms with high and low emphasis on SRL.

BACKGROUND. Self-regulating learners are metacognitive (e.g., self-aware), motivated for learning, and strategic (Zimmerman, 2008). Students learn to regulate in classrooms where autonomy, including choice, control over challenge, and opportunities to self-evaluate learning, is promoted and supported (Perry, 2013). Classroom practices that support SRL have been linked to the development of adaptive motivational responses to

challenging circumstances (Perry & VandeKamp, 2000). For instance, in classrooms that encourage a view that mistakes can support learning, students respond to difficult, perhaps frustrating, outcomes productively (e.g., persisting and using adaptive strategies). Surprisingly, few studies have explicitly linked aspects of children's self-assessments during regularly occurring classroom activities to their SRL.

SUMMARY & CONCLUSIONS

- Few studies have explicitly linked children's self-assessments during regularly occurring classroom activities to particular aspects of their SRL (i.e., motivation, metacognition, strategic action).

- Collaborations with teachers resulted in assessments for SRL that both supported teachers promoting SRL and children developing SRL.

- The Learning Log is a practical tool teachers and researchers can use to reveal children's affect, motivation, and strategic action.

- Children in classrooms with a high emphasis on SRL demonstrate more nuanced and elaborated awareness of their emotions.

- Motivation and interest was maintained over time during a writing task for a student in a classroom with a high emphasis on SRL (e.g., where teachers provide instrumental support and feedback) despite experiencing negative affect.

- Results highlight the affective and motivational benefits of learning in classrooms that emphasize SRL.

- Teachers need to more explicitly teach and model a variety of adaptive strategies as students engage in tasks, as well as create contexts that are supportive of a range of emotions.

FUTURE DIRECTIONS

- Continue refining Learning Log questions and coding to assess students' self-regulation of/for learning.

- Identify specific classroom practices that may promote differences in students' emotional, motivational, and strategic awareness.

- Examine developmental differences in students' responses across different grades.

METHODS

- Seventeen Grade 3 teachers from six schools in a culturally and economically diverse suburban school district collaborated with researchers to design assessments of SRL in the context of writing.
- Teachers designed and implemented a "Learning Log" (see figure below) to support children's self-assessment and regulation of affect, motivation, and strategic action.
- Learning Logs were collected before, during, and after their writing process.

CLASSROOM COMPARISONS. Mixed method analyses for this poster focused on children's learning logs (N = 159) in 6 classrooms, three high (n=77) and three low (n=82) emphasis on SRL classrooms. Highlights from student responses are presented.

CASE EXAMPLES. Two representative learning logs were selected, one from a high and one from a low SRL emphasis classroom. A detailed description of the writing activity and teacher support for SRL in each classroom is summarized along with students' responses to learning log questions from all stages of the writing process.

Name: _____ Date: _____

When I did this activity, I felt...

😊 Focused 😊 Happy 😐 Confused 😞 Frustrated 😴 Bored

I felt this way, because...

While I worked, I tried to...

Next time, I will try...

How interesting... [] [] [] [] [] [] [] [] [] []

How important... [] [] [] [] [] [] [] [] [] []

Figure 1. Learning Log: Children's self-assessment of affect, motivation, and strategic action.



CLASSROOM COMPARISONS

HIGH VS. LOW EMPHASIS ON SRL. Children in both high and low SRL emphasis classrooms were more likely to report positive than negative emotions (see below). However, children in the high emphasis classrooms were more likely to describe mixed emotions (selecting both positive and negative emojis). These learners also provided more elaborated descriptions of their emotions and strategies and gave higher ratings of interest and importance to their writing tasks. Children in both groups reported mainly strategies associated with effort and persistence. Children from high emphasis on SRL classrooms reported greater use of task specific—strategies focused on writing.

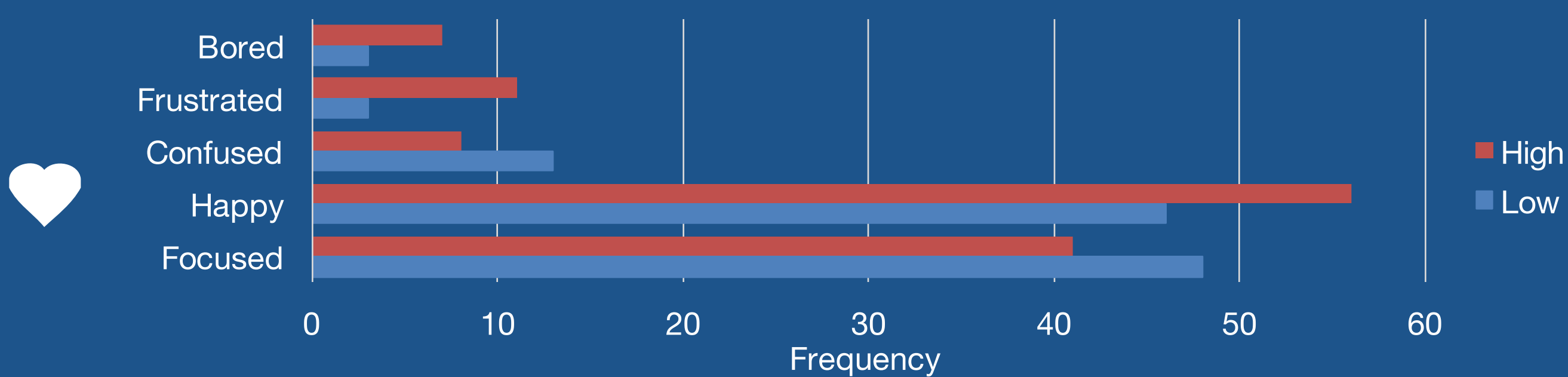


Figure 2. Histogram of students' self-evaluations of their emotions.

Indicators	Classroom emphasis on SRL		
	Low	High	Statistical Analysis
Frustrated	Frequency = 3	Frequency = 11	$\chi^2(1) = 4.172, p = .041^*$
Mixed Emotions	Frequency = 7	Frequency = 17	$\chi^2(1) = 4.199, p = .040^*$
Word count ("I felt...")	Median = 4	Median = 8	$U = 4,433.5, p = .000^{***}$
Word count ("I tried...")	Median = 3	Median = 6	$U = 3,759.00, p = .002^{**}$
Mechanical aspect of writing strategy	Frequency = 11	Frequency = 23	$\chi^2(1) = 4.474, p = .034^*$
Word count ("Next time...")	Median = 4	Median = 5	$U = 4,048.5, p = .000^{***}$
Interest rating	Median = 9	Median = 10	$U = 3,254.0, p = .075$
Importance rating	Median = 8.5	Median = 10	$U = 3,443.5, p = .016^*$

Figure 3. Indicators of students' motivation and emotions from the Learning Log. Two-tailed significance level: * $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$.

Strategy Coding	"While I worked, I tried to..." Examples	Frequency	
		Low	High
Help-seeking	"ask for help"	1	0
Persists or increase effort	"be more focused"; "try harder"; "practice more"; "work harder"; "add more"; "do more"; "work quietly"; "listen"; "not be distracted"; "not talk"; "stay on task"	46	39
Meaningful aspect of writing	"I had to think of what will happen in my story"; "I think back to the year and think of things I learned"	3	9
Mechanical aspect of writing	"I will use my highlighter"; "check my grammar"; "write neatly"	11	23
Adaptive/calming emotion-related coping strategy	"take a break"; "calm down"	5	5
Maladaptive strategy	"anxiety"; "not focus"	2	1
Other	"Finish so I could draw later"	4	0

Figure 4. Strategy coding for "While I worked, I tried to..."

RESULTS



CASE EXAMPLES

LOW EMPHASIS ON SRL. Students were asked to write a persuasive essay describing which breed of dog their teacher should get. Before writing, students added facts from pre-chosen books to the teacher's pre-constructed templates. During writing, students drafted sentences based on their collected facts. After writing, students reviewed their drafts, then requested teacher feedback. Students had limited choices and control over challenge within this task, and limited opportunities for collaboration/co-regulation. Teacher feedback was mostly procedural (e.g., grammar, and adding facts). One student's responses (below) indicate positive affect and high interest at the start of the activity, but interest decreased and negative affect increased by the end of the project.

	Before writing,	During writing,	After writing,
<i>When I did this activity, I felt...</i>	Focused, Happy	Focused, Happy	Bored
<i>I felt this way, because...</i>	I love looking at puppies and I also love reading about them	I was very focused and happy because I really want to present next week so I tried to do as much as I could	All I was doing was copying
<i>While I worked, I tried to...</i>	Get us much information onto mu paper as I could	focus and finish all my work	finish my ruff draft
<i>Next time, I will try to...</i>	to get started right away so I can finish this quickly	finish all my work and present	finish my good copy
<i>Interest</i>	10	8	6
<i>Importance</i>	10	10	8

HIGH EMPHASIS ON SRL. Students wrote about a local ecosystem as part of a year-long project. Before writing, the teacher engaged students in a variety of activities to stimulate interest and support idea generation. During writing, students used items to visually represent their thoughts/ideas. After writing, students revised their drafts based on their teacher's written feedback. Students' interest was maintained through engaging and meaningful activities (e.g., field trips). Students were frequently provided with instrumental support for SRL (e.g., "What is it you need? What is your job?" "How do you know it is going [well]?") and encouraged to ask their peers for support. One student, despite being frustrated, worked hard to maintain focus and complete the task (see below).

	Before writing,	During writing,	After writing,
<i>When I did this activity, I felt...</i>	Happy, confused	Frustrated	Happy, Frustrated
<i>I felt this way, because...</i>	Happy because it was fun doing "loose parts!" confused because I didn't get the questions. Happy because I got fun when I started answering the questions	It was hard to think of ideas to connect the bullets together, and when my [partners] were discussing stuff, I felt left out. I [also] think they were kind of distracting.	at first it was fun doing the loose parts, but then I got a little frustrated with the writing because it is hard for me to connect the sentences
<i>While I worked, I tried to...</i>	Keep it interesting finish it	stay focused but it was hard	stay focused
<i>Next time, I will try to...</i>	To be more focused and remember my bolts	to work by myself and get more done (FOCUS)	to be more focused
<i>Interest</i>	10	7	9
<i>Importance</i>	10	10	10

