

## Thinking Classrooms - Pre-Session Video Transcript

### Introduction

Imagine a learning environment where students are engaged to interact in profound and meaningful ways. This state of engagement, resulting from the dynamic relationship between challenge and skill development, is called *flow* (Liljedahl, 2016).

### **Welcome to this pre-session video on *Thinking Classrooms*.**

In this video, the Thinking Classroom is defined, its characteristics explained, and suggestions are made for how you and your students can experience success in this type of learning environment.

Take it from me: Having explored a Thinking Classroom as a part of my pedagogical practice transformed both my teaching and student learning.

As you continue with the video, consider framing your thinking against our session goals:

- (Teacher-focus) To deepen our understanding of practices that engage students with differences in backgrounds, learning strengths, needs and interests.
- (*Leadership Focus*) To inform your next best moves to supporting the growth of individual and collective teacher learning and practice.

### Thinking Classrooms - An Introduction

This is an active area of research for Dr. Peter Liljedahl (Simon Fraser University, British Columbia).

Thinking classrooms are defined as spaces "...not [only] conducive to thinking but [that] also [occasion] thinking...a space inhabited by thinking individuals as well as individuals thinking collectively, learning together, and constructing knowledge and understanding through activity and discussion" (Liljedahl, 2017).

These types of spaces exhibit 14, important elements. The elements can be thought of as pedagogical strategies--strategies contributing to the ongoing development of teacher and student mindsets of how to navigate guided inquiry in the mathematics classroom.

As teachers and students engage the elements, while negotiating and building mathematical meaning, they are building relationships with one another and a classroom community that honors student voice and empowers students to being agents (or leaders) of their own learning.

### Thinking Classrooms - The Stages of Elements

The elements are typically spread across 4 stages. Ultimately, practitioners will find themselves continuously deepening their practice by flexibly moving within and across the stages over time. Typical day-to-day practice will involve worthwhile tasks, structuring the classroom environment, and formative assessment--that is assessment for learning and assessment as learning.

These activities comprise the first, three stages. The final, fourth stage is characterized by practices that bring both teacher and students closer to an assessment of learning.

Let's take a closer look at the 4 stages and the elements within them.

Stage 1 implementation typically involves the use of worthwhile/rich mathematical tasks, vertical non-permanent surfaces (VNPS; vertical whiteboards), and visibly random groups (VRG).

Stage 2 is comprised of giving verbal instructions, de-fronting of the classroom, answering students only with keep-thinking questions, students creating meaningful notes, and building student autonomy.

- Building autonomy encourages students to build their understanding by consulting with other groups in the space.
  - By consulting with others and contributing to a facilitated consolidation of students' thinking, along with highlighting and summarizing, students are encouraged to create notes from various groups' work and discussion.

Stage 3 involves the use of hints and extensions to manage *flow* (or state of optimal learning), leveling to the bottom, and students completing check your understanding questions.

- Hints and extensions are provided to maintain students' engagement to continue thinking.
- Leveling to the bottom represents the selection and sequencing of VNPS work and students' discussions that are to be featured and collaboratively threaded together by a teacher-facilitated consolidation (or lesson). In this case, the "bottom" is the threshold example at which all students should be or were able to engage in solving the task.
- Following consolidation, students are assigned a few tasks that they can use for self-assessment purposes. During this time, students work independently or in groups--either at VNPSs or on other surfaces (e.g., desks).

Lastly, Stage 4 involves the teacher communicating where students are in relation to learning goals, evaluating what is being valued, and reporting out on data (as opposed to points).

- Note that evaluating brings us closer to giving an assessment of a student's learning.
  - When it comes to value, thinking classrooms focus more on process over product and combine both group and individual work
- As per reporting out on data, the philosophy is to holistically analyze a student's data--that is, in a disaggregated manner. Doing so, as opposed to counting points (or aggregating marks), gives both the student and teacher a better, valid assessment of what the student has learned and next steps for improvement.

## Conclusion

Thank you for watching this video and moving further into the "Before You Arrive" activities.

Leading up to our session, here are a few post-video suggestions to continue your learning:

- 1: **Delve into the suggested resources** linked alongside this video--you can find them either below the video on YouTube (link: ) or, here, on the [session website](#).
- 2: Continuously **connect to the learning goals** mentioned in the introduction.
- 3: **Explore** some of the **Year 1 elements** of a Thinking Classroom with your students.
- 4: **Visit** and participate in a **colleague's classroom** where these elements are being explored.
- 5: **Share your learning** with someone else--e.g., a colleague, your administrator, a network, or your PLC.

...and...

- 6: As you stretch your thinking and learning, you might also consider **making connections** from a Thinking Classroom **to** the domains of **the Pedagogical System for Teaching Mathematics and/or** to the principles of **Formative Assessment (Growing Success)**.

Note that each of these “Learning Activities” can be found on the session website:

- Formative Assessment: “[Learning Activity - Option 1](#)”
- The Pedagogical System for Teaching Mathematics: “[Learning Activity - Option 5](#)”

### Final Remarks

I’m looking forward to working alongside each of you, as we seek to co-create conditions that can give life to equity in the teaching and learning we do with students and one another each and every day.

If at any time, you have questions or comments, please feel free to reach out to me at *Flipping the Focus* using the “Contact” button (email: [flippingthefocus@gmail.com](mailto:flippingthefocus@gmail.com)) provided on the session website.

Sincerely,

Chris Stewart  
Educational Leader at *Flipping the Focus*

### References

Liljedahl, P. (2017, October 17). *Building a Thinking Classroom in Math*. Retrieved from <https://www.edutopia.org/article/building-thinking-classroom-math>

Liljedahl, P. (2016). *Flow: A Framework for Discussing Teaching*. Proceedings of the 40th Conference of the International Group for the Psychology of Mathematics Education (Vol. 3, pp. 203-210). Retrieved from <http://www.peterliljedahl.com/wp-content/uploads/PME-2016-Flow-and-Teaching-1.pdf>

