Technically Speaking:
Supporting Students with Computer-Supported Collaborative Learning

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Summary

Topic: Computer-Supported Collaborative Learning
Communication and co-construction of knowledge should be embedded in classroom practices. These practices can be enhanced with CSCL (Computer-Supported Collaborative Learning). Affordances of computer-supported collaborative learning include: (1) establishing a joint task; (2) communication; (3) sharing resources; (4) engaging in productive processes; (5) engaging in co-construction; (6) monitoring and regulation; and (7) finding and building groups and communities (Jeong & Hmelo-Silver, 2016). In sum, students collaborate on a meaningful learning task with a shared goal.

What is the Issue?

Teachers need to engage students with instructional design strategies that will support the functions of technology. Though digital devices are readily available in most classrooms, educators should ensure they are utilizing the functions of technology to enhance instruction while providing students with opportunities to co-construct knowledge. Rather than focusing on the computer or digital tool, educators should mindful of the functions that they want the technology to support.

Why This Matters to Teachers

- Teachers can embed technology in their instruction in a meaningful way that connects to the Common Core Standards.
- Students should engage with a variety of technology to support their learning and the learning of others with the ability to self-monitor learning and growth.
- Districts should align curriculum to communication standards as outlined by teaching standards in any discipline.

What to Consider

Using technology for collaborative learning requires thoughtful planning, designing, and teaching. In other words, teachers must plan to support the function of technology.

- **Establishing a joint task**: The learning task must be aligned with pedagogy and best practices, while offering students an opportunity to dive deeper into a topic with peer and teacher support.

- **Communication**: While students have familiarity with face-to-face and real time communication, technology provides both synchronous and asynchronous, documented communication.

- **Sharing resources**: Students can share resources. Digital interfaces can serve as warehouses for information that the students can build, organize and edit with one another.

- **Engaging in productive processes**: To ensure productive learning processes, teacher may need to provide task structuring and scripts (such as question and answer sentence stems).

- **Engaging in co-construction**: To ensure students are engaged in co-construction, records and summaries of what was discussed can be digitally archived.

- **Monitoring and regulation**: Monitoring student work and achievement can be addressed with technology. While students develop agency in equitable partnerships, teachers have the ability to monitor student work.

- **Finding and building groups and communities**: Small groups are ideal for online learning. Teachers can group students in heterogenous group or interest groups that align with classroom best practices. To support student discussion, a teacher can create question stems such as, “This is excellent because…” or “I see how you can improve this, and here is how:...”

Attending to Equity

In online communities, students are afforded opportunities to collaborate with peers. “Collaboration, by definition, means that partners work toward a shared goal and co-construct something new” (Jeong & Hmelo-Silver, 2016, p.9). The “shared goal” may be student-created, but should be facilitated by classroom instruction and specific guidelines provided by the teacher. To attend to equity, students may be responsible for adhering to a grading rubric, a script, or a milestone.

What This Means to Teachers

Teachers establish a culture for learning in their classrooms. With technology, teachers have the opportunity to establish a culture for learning beyond the walls of the classroom, offering students a richer learning environment.

Source

Jeong, H. & Hmelo-Silver, C. E. (2016). Seven affordances of CSCL Technology: How can technology support collaborative learning. Educational Psychologist. 51, 247-265.

Additional Resources

This practice brief reviews Jeong & Hmelo-Silver's seven affordances of CSCL. There are a range of tools that can support CSCL in a variety of classroom settings. K-12 educators and school districts can choose the technology, while adapting the instructional strategies to support students' needs.

Learning tools and additional resources can be found by following these links:

Google Classroom: www.classroom.google.com
Knowledge Forum: www.knowledgeforum.com
Wise: www.wise.berkeley.edu
PB Works: www.pbworks.com
Circle Center: www.circlecenter.com