Stages of Technology Adoption and What Administrators Can Do To Assist
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Stage	Characteristics	Administrative Support
Entry	Planning stages for technology; possible committee or technology team; school or district should be developing "critical mass" for technology	Provide routine planning time around technology. Help staff focus on common vision. Excuse staff from as many district requirements as feasible. Create opportunities for dialog within all levels of district/school.
Adoption	Keyboarding skills evident. Use of word processing programs for writing assignments. Some use of computer software programs for drill and practice of basic skills. (Not integrated into instruction.)	Provide basic technical support to help build teachers' confidence. Ensure maintenance and repair of technology. Provide in-service training on basics like loading paper into printer, basic troubleshooting, and have help readily available to assist teachers. Provide training on keyboarding and basic software applications.
Adaptation	Students compose on computers. Many basic instructional activities are self-paced and individualized using technology. Curriculum is changing or evolving because of increases in student productivity and teacher use of technology.	Explore ways to assist teachers in evolving or changing the curriculum. It might be helpful to consider flexible schedules. Consider alternative pedagogies. Provide training on tool software (spreadsheets, databases, graphics, email, and hypermedia). Consider expanding technology purchases: scanners, videodiscs, digital cameras, Internet capabilities, and upgraded software applications.
Appropriation	Teachers are experimenting with interdisciplinary and/or project-based instruction. Increased instructional focus on higher order thinking skills and how technology can support their development. Teachers may also be experimenting with team teaching or student collaboration using technology. Teachers need and will be considering new assessment strategies.	Find ways to support peer observations and group discussion among teachers regarding pedagogical issues and technology. Encourage and support conference attendance and teacher presentations by teaching staff. Consider assessment issues and obtain professional development in areas such as alternative assessment or portfolio assessment that utilize and consider technology. May be a good time to re-evaluate technology vision and plan for district/school.
Invention	Teachers are meeting and/or exceeding instructional goals for SOL's. Teachers have or are developing an integrated curriculum utilizing technology to support higher order thinking in instruction. Teachers demonstrate a balance between direct teaching and project-based learning using a variety of technologies (Web, data collection, data analysis, presentation). Teachers have integrated or are integrating alternative assessments with technology.	Encourage continuing collaboration among teachers. Encourage teachers to consider conference presentations and publications of their experiences. Create ongoing opportunities for teachers to mentor new teachers or teachers new to technology use. Consider and discuss use of emerging technologies for enhanced communications among teachers and district personnel (video conferencing, online professional development).

(Sandholtz, Ringstaff, and Dwyer, 2000)

## References

Sandholtz, J., Ringstaff, C., and Dwyer, D., (2000) The evolution of Instruction in Technology-Rich Classrooms. In Technology and Learning. Jossey-Bass Publishers: San Francisco, CA.