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**The LoTi Framework**

| Level | Category | Description |
|---|---|---|
| 0 | Nonuse | A perceived lack of access to technology-based tools or a lack of time to pursue electronic technology implementation. Existing technology is predominately text-based (e.g., ditto sheets, chalkboard, overhead projector). |
| 1 | Awareness | The use of computers is generally one step removed from the classroom teacher (e.g., integrated learning system labs, special computer-based pullout programs, computer literacy classes, central word processing labs). Computer-based applications have little or no relevance to the individual teacher's instructional program. |
| 2 | Exploration | Technology-based tools serve as a supplement to existing instructional program (e.g., tutorials, educational games, simulations). The electronic technology is employed either as extension activities or as enrichment exercises to the instructional program. |
| 3 | Infusion | Technology-based tools, including databases, spreadsheets, graphing packages, probes, calculators, multimedia applications, desktop publishing applications, and telecommunications applications, augment isolated instructional events (e.g., a science-kit experiment using spreadsheets/graphs to analyze results or a telecommunications activity involving data-sharing among schools). |
| 4 | Integration | Technology-based tools are integrated in a manner that provides a rich context for students' understanding of the pertinent concepts, themes, and processes. Technology (e.g., multimedia, telecommunications, databases, spreadsheets, word processors) is perceived as a tool to identify and solve authentic problems relating to an overall theme/concept. |
| 5 | Expansion | Technology access is extended beyond the classroom. Classroom teachers actively elicit technology applications and networking from business enterprises, governmental agencies (e.g., contacting NASA to establish a link to an orbiting space shuttle via the Internet), research institutions, and universities to expand student experiences directed at problem solving, issues resolution, and student activism surrounding a major theme/concept. |
| 6 | Refinement | Technology is perceived as a process, product (e.g., invention, patent, new software design), and tool to help students solve authentic problems related to an identified real-world problem or issue. Technology, in this context, provides a seamless medium for information queries, problem solving, and/or product development. Students have ready access to and a complete understanding of a vast array of technology-based tools. |