TOWARDS CONSTRUCTIONISM - ENSURING A COMFORTABLE TRANSITION FOR TEACHERS: TWO DIVERGENT CASE STUDIES

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This paper will report on efforts to move two very different schools towards a constructionist learning environment supporting individual learning/teaching styles, inquiry, reflection, collaborative problem solving, and interdisciplinary learning. A large emphasis will be placed on generating richer and more flexible social interactions. LogoWriter will be used by students in each of these schools as an intellectual laboratory and vehicle for self expression. Software design by students promises to be an integral part of both projects. However, access to computing is dramatically different in these two schools.

A.P. Terhune School is a 350-student public K-5 elementary school in suburban Wayne, New Jersey. Terhune School has received a three-year State grant to create a constructionist learning environment complete with manipulative-based mathematics, whole language, inquiry-based science, and LogoWriter. These are optimistic goals for a school with a long tradition of textbook instruction, union interference, and centralized decision making. Staff development will play a critical role in the realization of these objectives. A commitment has been made to dedicate staff development resources for in-classroom collaborations with the teachers involved. Thematic units will be developed in collaboration with the teaching staff in order to ensure a comfortable transition from a textbook-based approach to instruction to a more dynamic culture of learners. There is a computer in each classroom and a small lab of computers available for students to use. This paper presentation will report on the first year of the computer-use phase of this project.

Methodist Ladies College[1] in Melbourne, Australia is a large PK-12 private girls school with a long tradition of innovation and a commitment to personal computing for every student. MLC invests a great deal of authority in its teaching staff and encourages its teachers to take risks and create new educational models. More than 1,500 students and teachers currently own their own MS-DOS notebook computers. By 1994, every student between grades four and twelve will own a personal notebook computer. The school has spent the past four years using LogoWriter as their primary software vehicle for creating a constructionist learning culture.

The grade levels involved in these projects differ significantly. The project at the A.P. Terhune School is targeted at grades kindergarten through third grade and most of MLC's LogoWriter activity occurs in grades five through eight. This presentation will explore the triumphs and challenges of both projects and will share examples of student work.

The introduction of a high-density of microcomputers and LogoWriter has served as a catalyst, causing teachers to reflect on their teaching practices and rethink the abilities of their students. These experiences have led to reprioritizing of curricular objectives, resource allocation, scheduling, and the overall relationship between teachers and students. We are optimistic that similar experiences will emerge from the experiences at A.P. Terhune.

I have been working as a staff development consultant and curriculum designer for both of these projects and the conference paper will report on the progress of these two schools. The success of reaching similar goals in these two very different schools is largely dependent on teacher appropriation of the project's goals. This requires support for teachers as they reconstruct the curriculum and their relationship with their students.

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Footnotes:

[1] Please read my other papers in this volume, "The Osmosis Myth - A Realistic Approach to Staff Development and Educational Change" and "The Challenges and Triumphs of a School with a notebook Computer Per Student," for much more information on MLC and a complete collection of my views on successful staff development in a constructionist environment. The ICTE '93 panel discussion, "The Constructionist Mirror: Helping Teachers Find the Learner Inside," will also address related issues.

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Stager, G. S. (1993). **Towards Constructionism - Ensuring a Comfortable Transition for Teachers: Two Divergent Case Studies**. In Estes, N., & Thomas, M. (Eds.), *Rethinking the roles of technology in education: The tenth international conference on technology and education, Massachusetts Institute of Technology, March 1993* (pp. 513–514). Austin, Texas: The University of Texas at Austin, College of Education.