Proposed Initiative for review, revision and costing:
Educational Development, Technology and Assessment

To: Strategic Planning Task Forces Subcommittee on CEDTA: Representatives from the SPSC Task forces on: Outcome Assessment and Feedback (OAF), New Programs (NP), Project Based Education and Cooperative Learning (PBCL), Educational Technologies (ET), Graduate Program (GP).

Copy: Chairs: Faculty Governance Committees, Center for Educational Development

From: Planning and Implementation Committee (PIC), Prof. Sharon Johnson, coordinating committee member for the CEDTA Initiative

RE: Proposed Initiative for review, revision and costing: Educational Development, Technology and Assessment

A theme addressed in the recommendations of the Strategic Planning Task Forces is strengthening our position as a highly innovative educational institution with an emphasis on student project experiences. The Strategic Plan Steering Committee submitted the following goal statement in its final report, which was endorsed by the WPI faculty: Continue to Innovate in our Undergraduate Program.

We have identified recommendations from the Task Forces in a list below, (with the originating task force acronym in parentheses) that describe possible actions towards this end. Also included is some discussion from the task force reports that, while not presented as recommendations, provides some additional context about this issue.

Following the list, we describe our current view of the nature and extent of the initiative that we believe follows from these recommendations, those in other Task Force reports and which is most synergistic with the specific opportunities that are made available within the context of a capital campaign (start-up funds, endowable positions or scholarships, personal involvement and commitments from alumni and trustees). Finally, we outline a specific request to your group to assist us in further defining this initiative and the resources that would be required to address it.

PIC requests that your subcommittee act as the sounding board for campus reaction to the ideas in this initiative and that you assist PIC in modifying and finalizing an appropriate initiative for campus approval and faculty ratification.

SPSC and Task Force Recommendations
The PIC Initiative that follows has components that follow from several of the SPSC goals, with emphasis on the first, including:
• Continue to Innovate in our Undergraduate Program
• Make Creative Use of Information Technology
• Create a Campus in Harmony with our Programs
• Integrate Education and Research
• Develop Creative Pathways to Graduate Degrees
• Recognize and Adapt to Continuing Change

Specific Task force recommendations in this area include:

1. Center for Educational Development (CED). An endowment is sought to provide stable funding for this Center and its personnel. The function of CED is to promote better and more efficient teaching at all levels. (New Programs = NP)

2. Center for Teaching, Learning, and Technology (Educational Technologies = ET)

3. Permanent committee to develop strategic plan on educational uses of technology (ET)

4. Inventory existing use of educational technology (ET)

5. Hire full-time trained instructional design/learning styles expert (ET)

6. Distance Learning -- The infrastructure to support faculty emphasizing distance learning technology must be improved. WPI's study multimedia capabilities should be increased along with appropriate support staff. (Graduate Programs = GP)

7. Advanced Distance Learning Network (ADLN): Already a number of departments have distance learning initiatives underway. This mode of instruction involves the thrust of new technology on existing and new programs. WPI's involvement in this arena could bring a number of new users as well. (NP)

8. Asynchronous Learning Opportunities: The emergence of communications technology has resulted in the development of asynchronous communications opportunities (teleconferencing, microwave, satellite, courses delivered on the Web, desktop computing, cable TV) that have lowered the barriers to accessing many organizations around the world. With new means and diminishing barriers to communication, opportunities for outreach are enhanced as is the threat of having remotely located competitors reach our students. The world is operating at an increasingly rapid pace. The necessity for convenience, combined with the demand for quality, dictates that WPI participate in this arena, especially given our technological focus to compete in the future. (NP)

9. Hire full-time educational assessment professional (ET)

10. Discuss the reinstituting of the Competency Examination in some form. (Outcome Assessment and Feedback = OAF)

11. We should move in several areas to deal with these issues: a, Defining appropriate departmental missions congruent with the established WPI mission and goals statements, and that address student outcomes important to WPI. As a university, WPI must adopt guidelines for such mission and outcome statements that are broad enough to allow for different objectives in different programs, but also are uniform throughout WPI and fit ABET's criteria; Making such mission statement amenable to measurement of student outcomes, with efficient procedures to quantify, record, and assess the level of achievement in each measurement for each student. (OAF)
12. That the Institute establish a group of pedagogically innovative faculty to mentor other faculty in effective teaching methods (Task Force on Project-Based and Cooperative Learning = PBCL)

13. That faculty familiarize themselves with the elements of cooperative learning, and teach them as an explicit part of the project. (PBCL)

14. That faculty attempt to role model group dynamics through enhanced team teaching and coadvising activity. (PBCL)

15. That well defined grade criteria be established (PBCL)

16. We need a set of criteria by which to define and against which to measure teaching excellence (J. Miller's White Paper on Assessment and Reward of Teaching, March 3, 1997).

Draft PIC Initiative

A message that permeates the Task Force reports is that there is a potential synergy to be exploited at WPI by capturing and coordinating the fragmented domains of expertise in educational issues that have developed or struggle for development at WPI. There is an opportunity for leadership in educational development, application of technology for education and outcomes assessment at WPI. The work that we are doing could remain another well kept secret about WPI, or, we can expand upon and expose it. We believe that there is an urgency in our need to invest in ourselves and an opportunity to capture the limelight for our hard work.

As we discussed the recommended actions, above, it seemed to us that a new structure would be needed to successfully implement them. We propose the construction of an entity named the Center for Educational Development, Technology, and Assessment (CEDTA). We suggest that this new entity be assigned a number of tasks that include coordination and nurturing of several areas of expertise that are now housed in several parts of the university, including for example: that part of the activities of the IMC and several academic Departments that deal with new educational technologies and distance learning; that part of the activities of the Registrar's Office that provides assessment aid at present; that part of the Writing Resource Center that oversees peer tutors and peer learning training; activities in the SPSS concerned with expertise on cognitive theory and teaching and learning issues, as well as statistical measurement issues; and activities of the Center for Educational Development.

We envision this center as staffed by a full time director, staff with expertise in assessment and educational technology, visiting faculty, faculty on internal sabbatic leave, and faculty participating in various teaching and professional development capacities.

The full time staff would work with the WPI faculty to facilitate application and testing the outcomes of new approaches to teaching and application of new technologies. The K-12 outreach coordinator, to be discussed in the PIC outreach initiative, will also be attached to CEDTA.

CEDTA would also spearhead campus wide efforts to develop new pilot projects funded by external agencies such as those recently completed with the Davis Foundation. After the initial start-up phase funded by the capital campaign, CEDTA will be responsible for establishing a strong external funding
based upon funded educational research, technology exportation, and provision of distance learning services.

**Specific Requests**

PIC requests assistance from the previous Task Force members based subcommittee with respect to the following:

1. Please review the above draft initiative. Your committee will play an important role in modifying this proposed initiative to address the needs of the WPI campus. This draft is intended to provoke discussion and reflection regarding the future thrusts for WPI and means to implement these goals with the help and within the context of the WPI capital campaign.

2. Please canvas the campus for comment and represent the collective wisdom of all interested parties in constructing your criticism and amendments.

3. Please produce a list of suggestions, by **March 23**, to be addressed by PIC. This need not be a formal report, but should include background information for each suggested change and an assessment of the campus wide reaction to the initiative that led to the suggested changes. This feedback can take the form of a simple email to the member of PIC coordinating this initiative, or, a new draft of the initiative.

4. Please be prepared to interact with PIC in the preparation of a second version of the initiative in response to feedback received. Also, please be prepared to participate in an open meeting with PIC and the campus community to discuss this second revision.

5. Please assist PIC in the evaluation of the costs of undertaking this initiative. As was explained at the December faculty meeting, the campus will participate in an exercise aimed at capturing the sense of priorities assigned to the various initiatives to be proposed. To conduct this exercise, we need to assign a set of costs to each initiative associated with each kind of resource required by each initiative. Please consider the following questions:

   1. What do you estimate will be the start-up costs of this initiative?
   2. What do you estimate to be the steady state operational costs of this initiative?
   3. What revenue streams, other than the operating budget, can you envision supporting this initiative?
   4. In addition to those ways that might have been suggested above, in what other ways do you imagine this initiative could benefit from the capital campaign?
   5. What space requirements do you think this initiative will need?

Then, please divide the costs into the following categories:

6. One time (start-up phase) cash expenses.
7. Endowed chairs, fellowships and/or scholarships or other self-replenishing funds.
8. Facilities (construction or equipment costs) that might be addressed through a gift-in-kind or gift that targets this project-specific one-time expense.
9. Continuing costs that impact the operating budget.
10. Potential offsets of continuing costs, due to new revenue streams.
Consider the fact that those initiatives that are selected for implementation after campus priorities have been illuminated will have to share the new resources being developed by the capital campaign. These currently untargeted new resources are, conservatively, estimated at approximately $16 million in unrestricted (effectively cash) and $30 million in restricted funds (scholarships, fellowships, chairs and other gifts dedicated to a particular purpose according to the interests of the donator.)