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ABSTRACT

In May 1997, the Maine Legislature passed a comprehensive document that delineated expected educational outcomes for students, known as the Learning Results. This paper describes the components and philosophy of Maine's standards-development process. The Learning Results are based on Peter Senge's system model, which asserts that adoption of a new method necessitates a change in the infrastructure. Because each student is recognized as an individual system, a collaborative team structure is used to meet each student's needs and develop a personalized learning plan. The paper explains how individual student profiles are mapped and personal learning plans developed. It also outlines objectives for the student-centered system of 2002 and the expectations for the student, educator, community, and the state. For each local system to move forward, one essential question must be answered: How can the design of curriculum, instruction, and assessment that moves students toward achievement of the Learning Results also ensure that all students are provided fair opportunities to achieve those results? The answer lies in building on Senge's systems thinking in which each student is recognized as an individual system, and by using a collaborative team structure for planning. Using these concepts, each student's needs can be delineated in a way that will guide the design of the classroom, school, and system environments to ensure fair opportunities to learn. Five figures and a sample student profile are included. (LMI)

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## Soon to Become Reality: High Standards for All Students

ED 409 657

Public education in Maine is at a critical crossroads. In the year 1902, most Maine students entered the job market prepared for work in the agricultural or manufacturing fields. In 2002, however, most Maine students will compete for yet-to-be-created professional or technical jobs. Entry level positions will require solid skills such as ability to communicate effectively, technical writing, statistical analysis, and problem solving. The Education Act of 1984 started the wheels turning by establishing the Maine Educational Assessment, the Annual Performance Report on Maine's Public Schools, and an innovative grant system that supports innovative teaching practices in Maine schools. Even with reforms driven by this act, however, the current educational system doesn't prepare students for successful living and working in the 21st century. The vehicle that will drive this change exists in the form of Maine's Learning Results.

With the intent of building on the 1990 Maine Common Core of Learning, the Maine Legislature created the Task Force on Learning Results, a group of twenty citizens including educators and business representatives. They were charged with identifying what Maine students should know and be able to do by the time they complete their public school education. Public Law Title 20-A, Chapter 649, passed by the Maine Legislature in March 1996, established a set of Guiding Principles as statute. Building on the Guiding Principles, a comprehensive document of skills and knowledge known as the Learning Results was approved through the legislative rule-making process in May 1997. To support the Learning Results implementation, a comprehensive assessment system and a comprehensive staff development plan have been proposed.

Two guiding ideas were key in Maine's standards development process - all children can learn, and within our new education system, all children need fair opportunities to achieve the Learning Results. At the core of a new plan for education in Maine, the Learning Results require that critical attitudes and beliefs be present to guide our work:

- High standards must be for ALL students.
- All activities to support implementation must be designed around what students need in order to learn (student-centered).
- State and local assessments must provide multiple means and opportunities for students to demonstrate what they know and can do.
- Quality, comprehensive learning opportunities are needed at all levels of the system.

Maine's high standards, the Learning Results, are structured in three levels. The first level identifies broad performance goals for all students, called Guiding Principles. Students are expected to be: clear and effective communicators; self-directed and life-long learners; creative and practical problem solvers; responsible and involved citizens; collaborative and quality workers; and integrative and informed thinkers.

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The second level of the Learning Results articulates knowledge and skills in eight subject areas: English Language Arts; Modern and Classical Languages; Social Studies; Visual and Performing Arts; Science and Technology; Health and Physical Education; Mathematics; and Career Preparation. The results in these areas, Content Standards, lead directly to the achievement of the Guiding Principles.

Lastly, Performance Indicators, or checkpoints, exist at the PK-2, 3-4, 5-8, and secondary levels. They are intended to guide local curriculum development and assessment at both state and local levels. The strong relationship between the Guiding Principles, Content Standards, and Performance Indicators, along with the development of personal learning plans, will make personalized curriculum, instruction, and assessment (C-I-A) a realistic expectation for each student.

Providing only a structure for personalizing C-I-A, however, will not lead to attainment of the Learning Results. Resources, practices and conditions driven by student needs must also be in place. These components provide all students with fair opportunities to achieve the Learning Results. A preliminary report reflecting input from stakeholders throughout Maine recommends infrastructure changes for all levels of the public education system. In this visionary educational system, opportunities needed by students to achieve high standards are defined and used to personalize education. To ensure high performance by ALL students, the classroom, school and system cultures are dovetailed with student needs. In this new infrastructure it is widely understood that education is an “infinitely expandable unlimited resource” and that one child’s program does not have to come at the expense of another’s.

It is possible to understand education as an unlimited resource by using a systems framework such as Peter Senge’s model. This model consists of multiple interrelated and interdependent components, shown in Figure 1 as an illustration of how each aspect of the educational system is connected to and impacted by each of the others. If a new *theory, method, or tool* (such as cooperative learning) is adopted on the basis of supporting a given *guiding idea* (by working collaboratively, all children can achieve to high standards), it necessitates a change in the *infrastructure* (providing related staff development). The change in infrastructure results in an increase in the *skills and capabilities* of the staff (know how and why cooperative learning works), and ultimately impacts both their personal *awareness and sensibilities* (see new classroom possibilities in old situations) and their *attitudes and beliefs* (all children bring to and gain knowledge and skills within a collaborative learning experience).

INSERT SENGE DIAGRAM HERE (Figure 1)

The key to the use of a systems model is understanding the interrelatedness and interdependence of the components. Less significant is the order in which the components are impacted during the change process. The initial point where change takes place, whether it is a new guiding idea, an infrastructure change, or a shift in another component, will be different in every situation based on the individual system’s energy for certain types of change work and what is seen as the high leverage point for best results.

In Maine, the *guiding idea* that ALL students can learn and achieve high results led to state level *infrastructure* changes including legislation expecting mastery of the Learning Results, and the recommended development of comprehensive systems of assessment and professional development. The *theories, methods, and tools* of the system will ensure stakeholder involvement in the process, maintain local control, ensure all students fair opportunities to achieve, and hold schools accountable for student achievement. Tools for comprehensive planning, such as the one described in this article, and other frameworks for learning results implementation are being developed. These tools will be available for local units to adopt and implement.

For each restructuring local system to move forward, one essential question must be answered - how can the design of curriculum, instruction, and assessment that moves students towards achievement of the Learning Results also assure that all students are provided fair opportunities to achieve these results? The answer lies in building on Senge's systems thinking where each student is recognized as an individual system, and in using a collaborative team structure for planning. Using these concepts, each student's needs can be delineated in a way that will guide the design of the classroom, school, and system environments to assure fair opportunities to learn.

Information related to the highly personal and intangible facets of the Senge circle are gathered in a Student Profile based on the components of the MAPS process. The components of the triangle, documented through the completion of a Personalized-Opportunities-to-Learn (POTL) template, guide planning teams as they investigate and discover critical information about a student that will inform the development of his/her Personal Learning Plan.

Looking at the student as a system, the information generated in the triangular portion of the Senge diagram includes aspects that should be integral in planning for each student. It describes the face the student presents to the world ... the infrastructure (his/her physical structure and needs), the guiding ideas (expressed attitudes and beliefs of the student), and the theories, methods, and tools (his/her interaction with the environment). The information in the circular portion of the diagram is no less important but addresses the student's internal attitudes and beliefs, awareness and sensibilities, and skills and capabilities.

The following example of Todd, a Maine student, demonstrates how to develop personalized C-I-A for a student with complex needs. Using three planning tools, a Student Profile, a POTL template, and a Performance Indicator Planning Grid, the team identified what Todd needed in order to achieve the Learning Results.

First, initial information specific to the student is gathered. The Student Profile in Figure 2 provides a structure to acquire focused, essential information. The team developing this profile, including the family and whenever possible the student, may choose to address these areas during a parent conference, regular planning session, or any other formal or informal meeting opportunity. Gathering information directly related to the components of the circle in Senge's diagram brings forth some of the personal and intangible aspects of Todd as an individual.

## INSERT STUDENT PROFILE HERE (Figure 2)

In personalized planning for Todd, information gathered by completing the POTL template (Figure 3) also provides crucial and comprehensive information on how he functions as a system. His personal profile and his POTL combine to provide the information needed to personalize curriculum and instruction.

## INSERT POTL HERE (Figure 3)

A working knowledge of local standards, in this case Maine's Learning Results, is needed to guide the personalization process. Outlined in the planning grid (Figure 4) are the links among the Performance Indicator being addressed in Todd's secondary classroom and the related Health and Physical Education Content Standard and Guiding Principles. It is important to note that this example is not realistic in that it is designed around only two performance indicators. In real classrooms, the instructional unit would be based on clusters of performance indicators, integrated within and across content areas.

The planned classroom activity is only one piece of instruction designed to move Todd's class toward achievement of this performance indicator. To provide Todd with equal opportunities to achieve, opportunities are built into the delivery of curriculum and instruction as seen in the personalization section of the planning grid. These opportunities are based on his needs as identified in the Student Profile and POTL templates.

## INSERT PLANNING GRID HERE (Figure 4)

Assessment planning is the next step in the process. To ensure the successful attainment of the Learning Results, the State of Maine supports the collaborative development of a comprehensive assessment system built on local and state level strategies. The purpose of the Maine Comprehensive Assessment System (MCAS) is to inform and guide teaching and learning, to certify student achievement of the Learning Results, and hold educational systems accountable for this achievement. It is intended that the MCAS will provide multiple means and opportunities for all students to demonstrate what they know and can do. To personalize the MCAS for ALL students and maximize their ability to demonstrate knowledge and skills, personalized planning for assessment must occur.

Continuing to recognize Todd as a system, the Personalized Assessment Choices template (PAC) provides the planning team with a tool they can use to guide appropriate assessment choices by addressing key issues.

## INSERT PAC TEMPLATE (Figure 5)

Because assessment will no longer be defined solely by standardized tests and pencil/paper exams, the flexibility for Todd to demonstrate his knowledge and skills in multiple ways will be key to his success. The MCAS will provide personalized choices, including performance assessments such as performance tasks, projects, exhibitions, and portfolios, as well as

standardized paper and pencil assessment. These choices will allow the collaboratively developed MCAS to document progress toward attainment of the Learning Results. Todd, as all other students, will experience an array of valid assessment options at various points in his school career. The state portion of this assessment system will take place in fourth, eighth, and secondary levels.

Schools in Maine, through implementing this process, have become aware that the information gathered in the 'what, where, when, and how' sections of the template in Figure 5 provides them with the parameters they need for the development of their local assessment system. Gathering PAC data on a significant number of students ensures a comprehensive system which allows all students valid and fair opportunities to demonstrate their knowledge and skills.

Addressing student needs through this comprehensive planning process has implications for all levels of the educational system. A student centered learning system will impact the student, the classroom, the local school system, and the community. The right of all students to achieve high standards will be accomplished in a climate and an environment which embrace personalized planning and collaborative team work, and where there is a shared vision of what students should know and be able to do by the time they complete their public school education.

It is anticipated that in the student centered system of 2002:

#### At the student level...

- Every student truly recognizes him/herself as a life long learner, always striving for further accomplishments of the Learning Results.
- Students are aware of and understand where they are headed educationally and are involved in their own educational planning.
- Students take responsibility and are actively involved in learning and demonstrating knowledge and skills.
- Students experience individualized curriculum, instruction and assessment, documented in a Personal Learning Plan (PLP). Along with their families and teachers, students actively participate in a personal action research cycle that informs revisions to their PLP.
- As with all other students, students with identified disabilities have PLPs with the Guiding Principles as the goal areas. Individual Education Plan (IEP) requirements of old are embedded in the PLP.
- Assessment of a student for identification of a disability reflects data available in his/her learning plan. The personalized assessment choices information drives the process.

#### At the educator/classroom level...

- Educators are mentors who guide the learning process.
- As all students achieve the Learning Results, educators work together in ever changing and creative ways. Previously segregated disciplines such as regular education, special education, English as a second language, homeless education and education of

- disadvantaged students have merged into one collaborative system.
- Educators, as members of planning teams, understand the Learning Results, design implementation and assessment strategies and are aware of the tools and frameworks available for support.
- A great deal of new learning continues to occur for all educators. Staff development based on strengths and needs is still critical.
- Family, student, educator, business and community input guide the staff development plan and system. Learning opportunities that emphasize new technologies and approaches proven effective in helping all students reach the Learning Results are available.
- Some people have experienced a shift in attitudes and beliefs about teaching and learning. New knowledge resulting from an ongoing action research cycle acts as a springboard to help planning teams design creative ways to personalize education for all students.
- Classroom schedules are designed to ensure equal opportunities to learn for all students.
- The physical structure of the classroom, the educational tools and materials, the rhythm of the day, the strategies used and the teacher's style are guided by the demands of personalized education for students to ensure they all achieve the Learning Results.
- Time is maximized to facilitate avenues for teaming and collaboration.

**At the local school system and community level...**

- Community members and businesses are actively involved in supporting all their students in achieving the Learning Results.
- Building and system schedules provide time for planning teams to work.
- The configuration of teams varies, but planning teams -- including families and whenever possible the student -- are critical to the success of all students in achieving the Learning Results. The teams are student focused and all members really know, understand, and *accept* the students.
- Student centered local assessment systems exist, are fully implemented and inform teaching and learning.
- Programs and services needed to support all students in achieving the Learning Results are identified, developed, and addressed in the staff development plans.
- Resources, realigned to ensure that all students have what they need to maximize their opportunities to learn, drive budget development. A comprehensive technology plan addressing the needs of all students plays a critical role.
- Local school systems have aligned their curriculum, instruction and assessment with the Learning Results.
- School boards have assessed their previously developed policies, procedures and practices for support of the Learning Results and made revisions accordingly. A process is in place to ensure that new policies also support this effort
- Schools are educational service centers. Local schools and their communities have collaboratively created a unified system of comprehensive services to support students and their families. Schools and facilities are used in innovative and flexible ways and provide avenues for learning through the availability of technology.

- The shared vision of what students should know and be able to do by the time they complete their public school education and the provision of conditions, practices, and resources necessary to provide equal opportunities for achievement guide decision making.
- Communities and businesses are classrooms and learning resources.

**At the state level...**

- Guidance, support and intensive staff development for local systems are ongoing at the state level.
- Pre-service teacher training provides future educators with the knowledge, skills and strategies they will need to guide all students toward achievement of the Learning Results.
- The Comprehensive Assessment system is clear but fluid. All assessment choices are aligned with the Learning Results.
- Accountability is shared by all stakeholders.
- Essential programs and services are based on helping all students in the achievement of the Learning Results and drive equitable, predictable and adequate school funding.
- Strong connections exist linking all who impact education (i.e. universities, professional organizations, professional development agencies, state trainers, state agencies, etc.)
- All the work of the Department of Education teams is aligned with student achievement of the Learning Results.
- Staff development, based on the current needs of the State agency staff to support the Learning Results, is ongoing.

In the year 2002 when all of this is accomplished and all students are achieving higher standards, the key to success will have been a shared vision of student-centered learning and clear, effective communication within and between all levels of the educational system. This new communication pattern will account for the quality, content, and presentation of the information being communicated, as well as the structures, relationships, and technologies that facilitate sharing and learning. Everyone, at every level, must be part of a true learning community if the vision that ALL students will achieve the Learning Results is to become reality.

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**Epilogue: In 2002 Todd's reality is very different than it would have been in 1902 or even 1992. The last few days of his 2002 daily computer log capture what his life is like:**

*December 21st:*

The world is just buzzing with excitement. Chris, Mom and I went to the "Celebration of Holidays" concert at Fairview School. That is the school that "Interface", the computer company I work for, has adopted. I have been thinking of asking the other members of my team their thoughts on my volunteering at the school. Anyway, the concert was fun and Mom loved to see all the decorations and the little kids. Chris came back to my place and listened to the latest music clips available on the Internet.

*December 22nd:*

We had a party at work today to celebrate the holiday season. I was uncomfortable at first with all the people but then the other three people in my team and I played ping pong in the lounge and had a good time. It was nice not to have to leave early for class. Both my community college evening classes are canceled this week!

*December 24th:*

WE WON! My YMCA basketball team is in the finals. I ran into Randy Jones as I was leaving and he asked me to be on his softball team this spring! They had a pretty bad season last year but I think it will be a blast. Randy says that Jon P and Jane R -- they graduated with us -- are getting married on New Year's.

*December 27th:*

I spent the day lounging around, listening to music, playing with the cat and fooling around on the computer. I don't know what I would do without this trusted friend. My life here and at work sure would be different! Mom found some discs while she was cleaning out my old room a couple of weeks ago. It was cool to browse through the information. I found a disc from 1995-96. It had lots of stuff from school but one thing really caught my eye. It was the dream I had written for myself that year. It read "To be a part of the community and not have people be afraid of me. To have friends." No wonder life is so good. I have my dream!

*December 31st:*

I went to the New Year's festivities in the city. I didn't stay long enough to see the fireworks. There were too many people, it was too cold and I almost got in trouble. I was talking with some friends when this jerk started giving us a hard time. I was just about to let him have it when I realized that I didn't have to hit him. I guess that "dealing with conflict" stuff I learned at school really has changed me.

*January 1st:*

Recently a person I chat with on line asked me to describe what I want in the future. I had to think about it for a while then sent a message saying: I want to always have a job I like and am good at. I want to be on the Board of Directors at the Y and change some of the things they offer (add conflict resolution, study skills and technology for example). Mostly, I want a family, to have children and to coach their basketball teams. I can't wait for my children to go to school! Here's to the future.

**As we move into the future with Maine's Learning Results, we will continue to share success stories such as Todd's and will always remind those who join us in this work that change is a long process that happens one conversation at a time. Continue the conversations and join us on this exciting journey.**

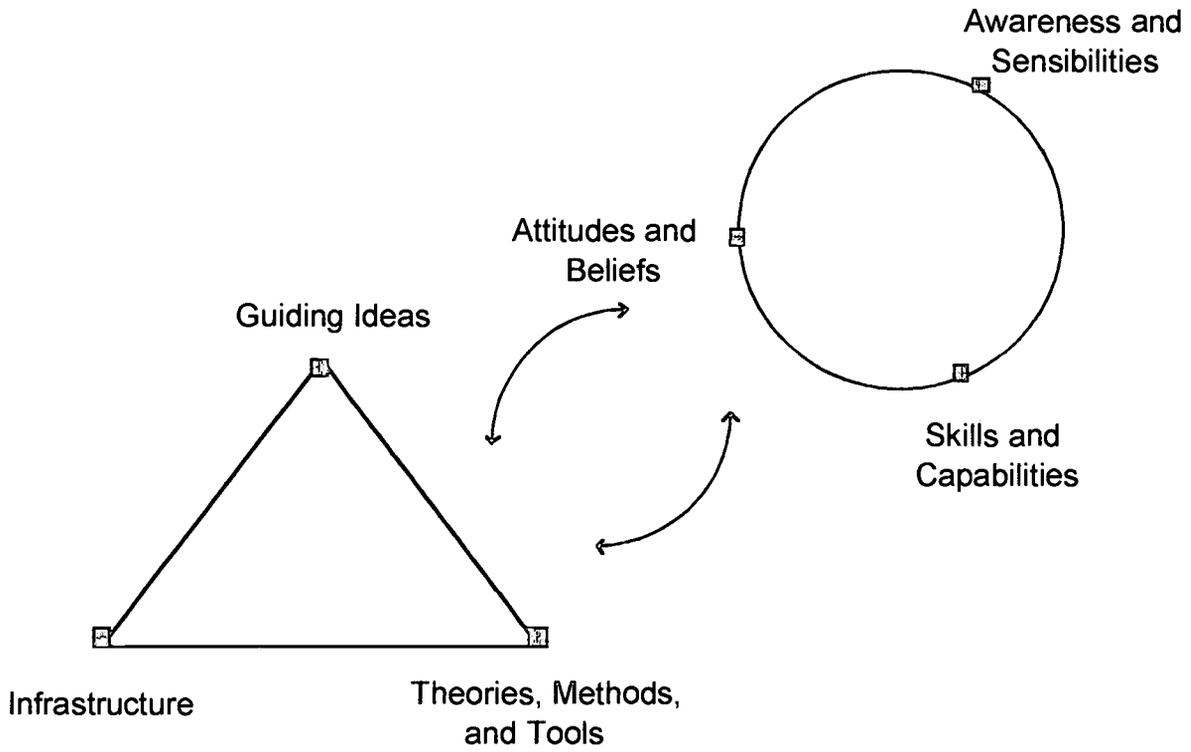


Figure 1.

## Student Profile

**Name:** Todd

**History:** Physically aggressive, verbally abusive, physically large, 15 years old, question of mental health issues.

**Dreams:** To be a member of my community without people being afraid of me and having friends.

**Nightmares:** Getting locked up. Something would happen to my mother and there would be no one who cares about me or advocates for me.

**Personality/Characteristics:** Knows he is bright, enjoys humor, likes to laugh, needs to have some control (i.e. making choices), fragile self-esteem, doesn't trust others, fearful of joining groups.

**Likes:** Computers, computer games, electronics, his family, physical activity (especially "shootin' hoops")

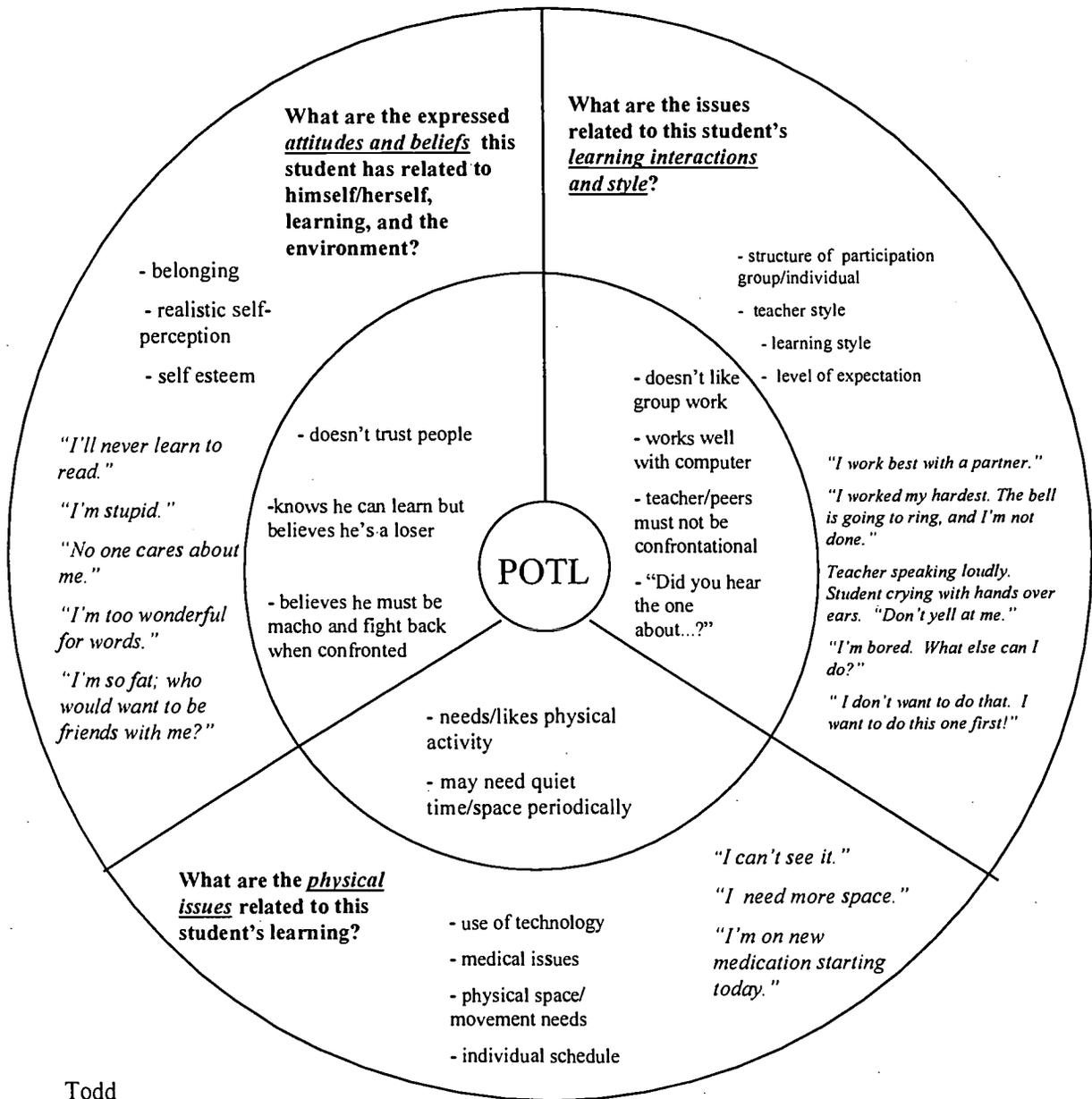
**Dislikes:** Losing, confrontation, being challenged, being laughed at, rejection, showing his limitations (masks them very well)

**Strengths:** Computers, physical coordination, memory, knowledge of music

**Educational Needs:** Academics, build self-esteem, social skills, communication

Figure 2. Student Profile

# Personalized Opportunities to Learn (POTL)



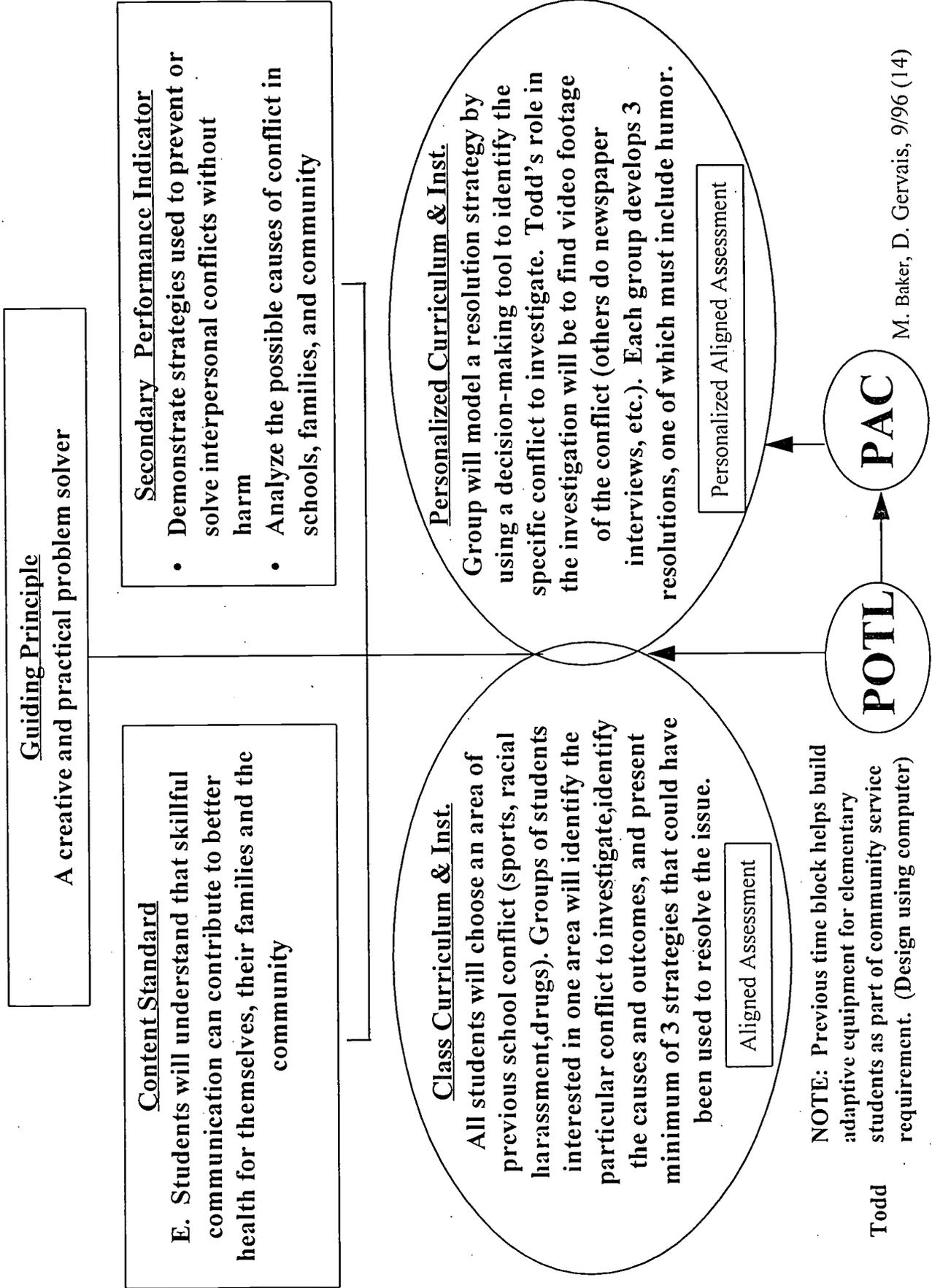
Note: Outer circle reflects general areas in which evidence may be collected.  
Inner circle contains collected evidence specific to Todd.

M. Baker, D. Gervais 1996

Figure 3.

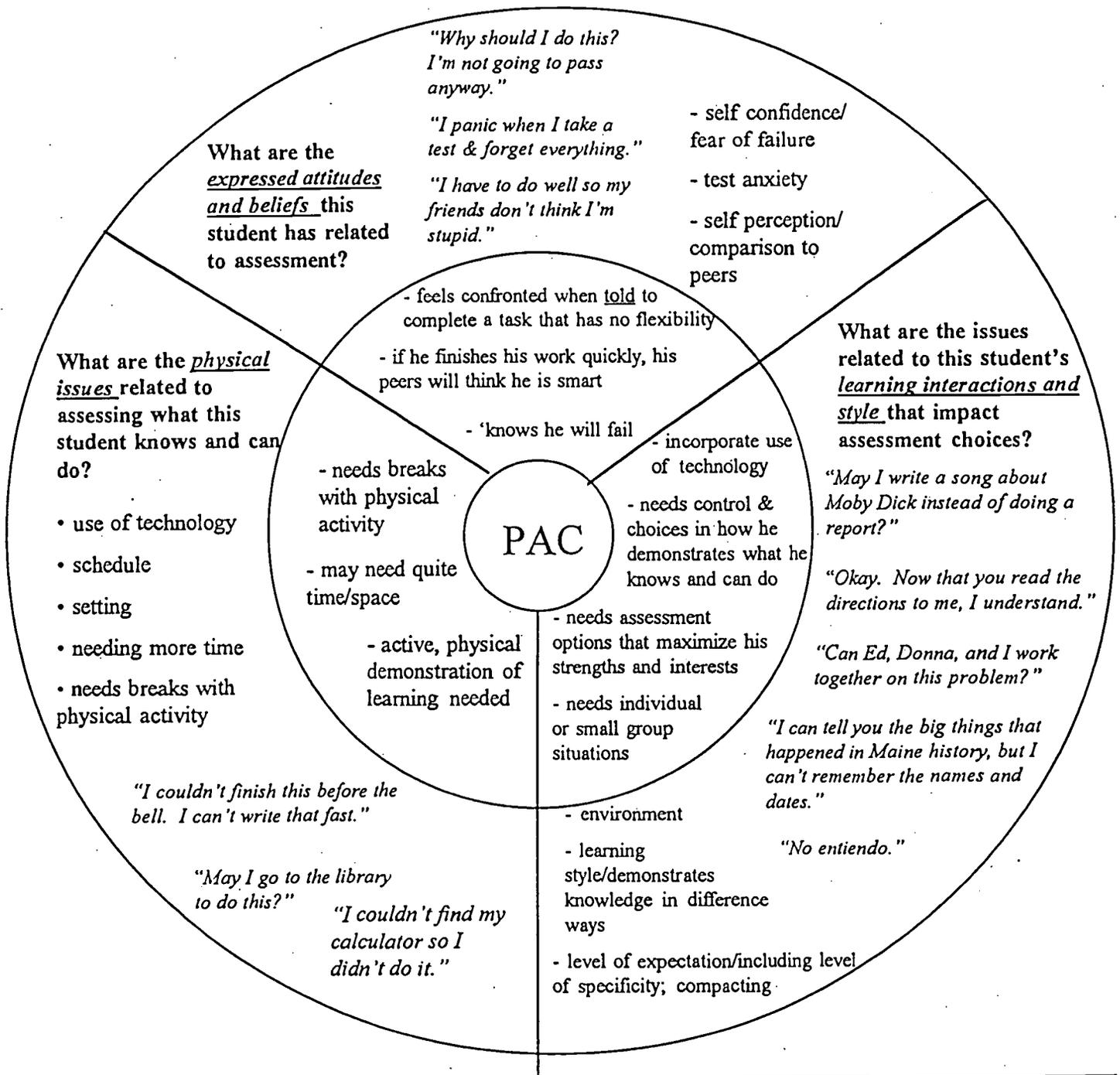
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# HEALTH AND PHYSICAL EDUCATION Communication Skills



M. Baker, D. Gervais, 9/96 (14)

# Personalized Assessment Choices (PAC)



What	Where	When	How
- performance tasks (i.e. skits)	- small group	- physical activity precedes high concentration tasks	-relatively quiet environment
- projects/exhibitions (i.e. science fair)	-individual	- after transitions are completed and students are focused on current task	- provide choices within a framework
- portfolios (including video, song lyrics, journal)	- space for breaks and activity		- technology available
- standardized test	- in personally meaningful setting (i.e. community)		- gets feedback on his performance that informs his future assessment decisions



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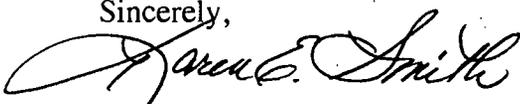
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