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ABSTRACT

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work group they most closely identify with is the department (or the
discipline). There are some common bonds: a common language, similar
educational backgrounds, a common respect for the subject, and a
shared world view shaped by the discipline itself which predisposes
the members of the group to look at problems and solutions in much
the same way. Another bonding factor may be found in the students who
"major" in the discipline. This brings students and teachers together
in ways that reinforce the uniqueness of the group. While elements
that hold the department together may vary in strength from
department to department and school to school, the core of common
interests needed to establish and maintain teamwork and group
cohesion are there. The department group, if properly nutured, can be
a powerful force for achieving excellence. This paper proposes a view
of the department that positions it as a new force for increasing the
effectiveness of high schools. A means of attaining this goal, based
on the principles of goal-based management, is presented along with
specific applications which illustrate the principles in action.
Issues that affect department performance are also examined. (JD)

# THE HIGH SCHOOL DEPARTMENT: A NEW FORCE FOR EXCELLENCE

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# THE HIGH SCHOOL DEPARTMENT: A NEW FORCE FOR EXCELLENCE

## 1. Why Focus on the High School Department?

### The School Effectiveness Research and Recent High School Studies: Where the Department Stands.

A host of recent studies of the high school have focused on the high school as a whole unit.[1] This is certainly understandable in light of the attention directed toward issues of school effectiveness in the last few years. However, this attention on the school as an important organizational unit may be obscuring the role of another important unit: the department.

This paper will propose a view of the department that positions it as a new force for increasing the effectiveness of high schools. A means of attaining this goal, based on the principles of goal based management, will be presented along with specific applications which illustrate the principles in action. Issues that affect department performance will be explored.

Research on the department or department heads is sparse.[2] We know relatively little about the organization, dynamics and effectiveness characteristics of departments. The principle school effectiveness study focused on high schools, Fifteen Thousand Hours, does little to illuminate our understanding beyond the evidence that teachers in the more effective schools worked more cooperatively than those in less effective schools.[3] Reports from high schools that have been implementing various school effectiveness programs do not describe in any detail the function of the department in those change efforts or the specific practices implemented at the department level.[4] The reports

from the U.S. Department of Education's Secondary School Recognition Program are equally silent on the role of the department in those schools that have been recognized. This is partially due to the fact that the selection and analysis criteria tend to draw attention away from the department.[5]

The analytical studies of high schools cited earlier don't focus much attention on the role of the department in producing "better" schools. Even the most reform-oriented of the recommendations support the continued presence of the department as an organizational unit, though the content areas would be reconfigured.[6]

The department is a persistent, pervasive, but little-understood part of our high school structure.

## Why Do We Have Departments?

The obvious answer is that division of labor requires it. In the U.S. today, most high school students are educated in schools enrolling more than 1,000 students.[7] In these schools relatively large numbers of teachers are clustered under a relatively small administrative umbrella. The department is a convenient method for maintaining some level of control in such a flat, broad organization. But this cannot be all of the answer, for even in much smaller schools a department structure is present.

Another source of support comes from the department members themselves. For most high school teachers, it appears that the work group they most closely identify with is the department (or the discipline). There are some common bonds here: a common language, similar educational backgrounds, a common "respect" for the subject, even a shared world view shaped by the discipline itself which predisposes the

members of the group to look at problems and solutions in much the same way. Another bonding factor may be found in the students who "major" in the discipline. This brings students and teachers together in ways that reinforce the uniqueness of the group.

While the glue that holds the department together may vary in strength from department to department and school to school, the core of common interests needed to establish and maintain teamwork and group cohesion are there. We believe that the department group, if properly nurtured, can be a powerful force for achieving excellence.

## What are the Practices of the Effective Department?

We must infer the answer to this question and see only the largest patterns. By looking at the school effects and teacher effects research we can see some of the effectiveness variables that bracket the context for the department.[3] The school is on one side, individual teachers on the other. It is our hypothesis that the department bridges the gap between individual teachers and the larger school context. In its bridging function, the effective department carries many of the characteristics of effective schools one layer closer to the classroom. The effective department is, in at least some very important ways, like the effective school of which it is an extension.

It is our contention that effective departments go beyond a routine maintenance of the status quo or acquisition of new textbooks or equipment, and even beyond implementation of new curriculum programs. The most effective departments have a relentless drive to improve student performance and are willing to do whatever it takes to achieve improvements over time. These departments focus on student performance and arrange curriculum programs and instructional strategies to achieve a

continuous stream of improvements in student performance. Program improvements are seen as means to an end, rather than ends in themselves. Allied with high expectations this mindset may be the most distinguishing and most important characteristic of effective departments.

## 2. Using Goal Based Management to Achieve Departmental Effectiveness.

### The Department as a Quality Improvement Team

Teamwork is a key to improvement. The department team that we believe can be most productive functions much like a quality circle. Essentially a group of peers uncover problems and causes, then design and implement changes, followed by monitoring and course correction. What makes the high school department team unique compared with other quality circle teams is the department's high degree of focus on student performance. The effective department is not interested in pro forma program improvements unless tangible evidence is obtained linking program improvements to changes in student performance. Quality is defined in terms of student performance, not in terms of textbooks, equipment, special facilities and other program characteristics, though these may be seen as a means to achieve results.

While this type of teamwork is attained by some departments in high schools today, many departments still function with less focus and sense of combined effort among staff. As you look at the department of which you are a member, some room for improvement may be apparent. What activities can lead to improved teamwork?

Begin by capitalizing on the natural bonds that draw department members together. Add focused discussions during staff meetings on curriculum and instruction topics that cut across courses. Conduct

informal needs assessments to draw attention to quality issues. Foster group discussion and participation by scheduling and delivering a departmental review in a general high school staff meeting. Identify, read and discuss a research article related to the departmental discipline. As a department group, plan a special event for students and parents in which all members of the department share responsibilities. There are many more activities like these that can improve the general level of team spirit in your department and set the stage for the team to focus on specific, major improvement projects.[9]

Once a norm of teamwork has been established, that capacity can be harnessed to drive improvements at the department level. As mentioned earlier, effective departments set high expectations, focus on student performance and press for continuous improvements. How are these goals pursued in practice at the department level? What are people actually doing? While we think there are many possible answers to this question, one approach, the goal based management approach, which will be described next, contains the essential practices needed to achieve consistent, positive results.

## Goal Based Management: Reviewing to Renewing

Goal based management is best understood as a five-step process. Working through this process initiates a chain of events that establishes the routine of continuous improvement. The five-step process is shown below:

1. Review student performance,
2. Set an instructional focus for improvement.
3. Plan and schedule instruction.
4. Work together for improvement.
5. Evaluate progress and renew the cycle

Now let's look at these steps in more detail. Keep in mind that all members of the department will participate in carrying out these steps.

Step 1 - Review student performance. Gather all the evidence you have about student performance related to your department's goals and objectives. The subject-specific sections of standardized achievement tests may be one source of information, teacher grade books may be another. Semester or end-of-course exams are also valuable sources of information. Look particularly for evidence about student performance relative to the skills and knowledge most essential in your discipline. If you judge your information sources to be poor, plan and conduct a departmentwide assessment focused on your priorities. Without a clear understanding of student performance, the remaining steps in the goal based management process can only be successfully completed by luck.

With raw data about student performance in hand, analyze it in search of patterns across students. (As a rule, when we do goal based management, we are more interested in how groups of students are doing than we are in individual performance.) The analysis can be done at several levels of resolution. For instance, you can analyze the response pattern to individual items on a test. This approach is particularly helpful where the test covers a broad range of goals and objectives. A common example would be a subject matter achievement test that students take as a college entrance requirement. The idea is to construct a matrix that relates test items to department goals and objectives. Questions such as the following are appropriate:

o    On the average, what percentage of students correctly responded to each item?

o    What percentage of all the items related to a particular goal were answered correctly by 90 percent of the students?

o   What percentage of all the items related to a particular goal were missed by 50 percent or more of the students?

Another useful type of analysis looks at the results of performance across whole tests. This is particularly useful when there is a proficiency, mastery or other sucess criterion attached to the total score for a test. Summarize test results across students, then consider questions like these:

o   What percentage of students attained 90 percent or above on the test?

o   What percentage of students achieved below 50 percent on the test?·

o   What was the average score for the test?

If you have information from more than one administration of a test or other assessment, you have the capability to look for trends. Where trends can be analyzed you can ask these kinds of questions:

o   Has the percentage of students achieving 90 percent or above on the test increased, decreased or remained the same?

o   Has the average score on the test increased, decreased or remained the same?

o   Has the average percentage of students correctly answering items related to departmental goals increased, decreased or stayed the same?

o   Has the percentage of items answered correctly by 90 percent of the students increased, decreased or stayed the same?

Compile your information in report form and share the information with all the department staff, your building administration and the appropriate central office curriculum and instruction staff member.

Step 2 - Set an instructional focus for improvement. This step takes your report on student performance and translates it into an improvement goal, using a decision making strategy. Review your student performance reports carefully, and discuss the results as a department.

Encourage others to participate, including parents and students, who can contribute a different perspective on the results. Collect feedback from a variety of participants concerning their level of satisfaction with the student performance results. One way to gather feedback is to schedule small group meetin  (about a dozen people at a time) to get direct and detailed information. Share meeting leadership among the members of your department. Structure the meetings so that every person attending has an opportunity to be heard.

During the meeting itself, spend the first 15-30 minutes presenting the student performance results. Then ask questions such as the following:

o    Which results do you feel represent adequate student performance? Exceptional student performance?

o    Which results would you like to see improved?

o    What areas of student performance would you like more information about?

As people respond to your questions, document those ideas on something like a large sheet of paper posted where everyone can see it. Summarize across ideas, checking for consensus, but don't force fit a conclusion. The goal is to leave the meeting with two or three priority items for improvement that have been generated by the group.

Collect, summarize and review feedback from all sections of the meetings that were held. The department team should then select one or two areas for improvement and communicate the final selection back to the people who provided input. If there are some areas for improvement that were obviously important to some key groups or individuals, but not selected as targets, explain why they were not selected and what actions are expected to be taken relative to them, if any. Try to select

improvement goals that will have an impact departmentwide. This approach increases involvement among all team members, an important consideration when getting started with goal based management.

This decision making process, though appearing somewhat cumbersome, will succeed in establishing a workable consensus where other, more expedient approaches will often fail.

Step 3 - Plan and schedule instruction. When the area for improvement is set (remember: the goal is defined in terms of improvement in student performance), its time to design and implement an action plan for your department. This typically involves planning curriculum and instructional improvements, developing activities and materials and providing inservice.

The nature of the exact changes you make in your department will, of course, be dependent on the goal you select. However, since the focus on student performance will relate directly to your curriculum, the following pattern of activity is likely.

Study those aspects of your current curriculum that relate directly to the improvement target. Review goals and objectives and sharpen them if necessary. Define revisions to existing materials. Think through new lessons and units that focus on your improvement target. Build an action plan that lists tasks and people responsible for carrying them out. Commit to a schedule. Review the plan with the department and get agreement to invest the time and energy needed to implement the action plan.

Development work comes next. Be sure that lesson and unit plans are written and that any associated materials such as assignment specifications, work sheets, expectations and study guides are prepared. Package the unit and lesson materials so that they can be easily used.

Step 4 - Work together for improvement. Plan and deliver inservice training for all department staff. The approach should introduce new curriculum materials, teach new instructional skills and provide adequate practice and feedback on a pilot basis.

When the time for implementation comes, set up expectations and procedures to foster cooperation. For instance, hold frequent, short meetings as a department team to discuss the use of the new curriculum materials or the new instructional strategies. Apply quality circle tools to engage staff in collegial troubleshooting and problem solving. Coordinate peer observations and occasional informal gatherings to talk about progress and celebrate successes.

While an individual, such as the department head, can orchestrate the teamwork, everyone must pitch in. Improvement is every team member's responsibility.

Step 5 - Evaluate progress and renew the cycle of continuous improvement. Keep track of how well you are doing in your improvement effort. Monitor your plan. Were the improvement activites completed at the quality levels required? How well did you complete your planned activities and meet timelines?

Check to see how well new curriculum and instructional practices are being implemented within your department. Do new lessons and units get used? Do teachers try new instructional techniques and use new resources made available to them? Check implementation as you go along and provide feedback. Fine tuning is almost always a necessary part of improvement efforts.

Keep track of changes in student performance. Do test scores go up? Are term papers better? Does the quality of classroom discussions improve? Monitor and display performance compared with your improvement goals.

It may take a year or more to achieve the level of student performance you are after. When you achieve one goal, go back to Step 1 and start again through the process. Or set up something like an annual review of student performance followed by goal setting, planning and implementation. Goal based management is a powerful tool for you to use in your department for implementing the philosphy of continuous improvement.

## 3. Applications of Goal Based Management

This section provides some examples of the types of improvement projects with which departments may become involved. They illustrate the applications of goal based management and the philosophy of continuous improvement at work. The context, purpose and process steps associated with each type of improvement will be described. The intent is to explore applications, not to provide detailed explanations or procedures.

### Aligning the Curriculum

Curriculum alignment refers to the degree of congruence that exists among the goals and objectives, instructional units and the tests and other assessments found in a curriculum segment. High congruence is associated with higher levels of student achievement.[10] Improvement projects that include strengthening curriculum alignment are likely to have a good payback. Often the focus of the improvement will be some

generalized measure of student achievement in the departmental discipline. Curriculum alignment projects are particularly good for involving all department staff.

The first step is to establish a clear set of priority goals and objectives for your department. If these don't already exist, they are a first order of business. Everyone in your department should be able to articulate a common view of what students should be getting from the courses available in the department. What are the priority learning outcomes? What are the major blocks of knowledge and the major skills that are most important?

If you already have goals and objectives defined in your department, review them as a team and agree on priorities. If you need to develop them, you may start by locating and reviewing examples from other schools. Contact your central office curriculum specialist, if one is available, for ideas. Form a department task force, review the examples, adapt what you can, add where needed and prepare a draft. The major goals for a department will probably not number more than eight or ten. As you can see, a list of priority goals is very different from a detailed task analysis that might be done as part of lesson development.

Define the knowledge and skills needed to achieve each goal and add these to your document. Circulate the goals and objectives, revise them based on the feedback and get final approval from the members of your department.

The next major step in aligning your curriculum is to establish the existing linkages in the curriculum. Using a consistent framework, review each course currently taught for its direct contribution to your

list of priority goals and objectives. Literally chart these relationships to determine where priorities are covered and where they are not.

Now match the existing tests and other assessments used to measure student performance with your priority goals and objectives. Again look for good coverage and areas where gaps exist.

Summarize and integrate the gaps found in your review of courses and assessments. Develop an action plan to fill these gaps over a period of time. This will improve your alignment and help ensure that students are getting the appropriate emphasis on the goals and objectives you have defined as priorities in your department.

The activities outlined here are ideal for a department level team effort.

## Improving Instructional Methods

Recent research on teaching has shown a consistent relationship between certain instructional practices and high student achievement. A very important department improvement project could strengthen the use of effective classroom practices by members of the team. For instance, a project might focus on improving reteaching tactics. The focus for such a project could be student mastery levels on unit quizzes or something similar. Projects focusing on instructional methods, like the curriculum alignment projects described above, are excellent department team builders because of their generality across teachers.

A department team might begin by getting agreement on an instructional model. To do this, research, discussion and group decision making would be required. This phase of the project is ideal for

collegial learning methods where team members divide up research responsibilities, then share what they've discovered with each other using a common frame of reference.

Once the model, which identifies recommended teaching practices, is complete, the department members target areas for improvement. This may be done through self analysis methods or through peer observation of colleagues at work. A staff development project is mapped out and implemented. Team members support each other through the implementation phase of the inservice work and actively fine tune their instructional activities by reviewing individual and group feedback on progress.

## Contributing to a School Improvement

Sometimes a department project will be defined in the context of a schoolwide improvement effort. Here the focus will be on some aspect of student performance that cuts across departments such as improving writing skills, thinking skills or self concept. Measures of performance and a general improvement strategy may be defined at the school level with departments and individual teachers owning the responsibility for actual implementation. In this context, the department team has a very important role to play and literally has its own improvement project nested inside the schoolwide effort.

The first step is for the department team to analyze and understand the schoolwide project and to work out specific applications of the general improvement strategy consistent with unique conditions in the department. Next the department team begins implementation and monitors itself using its own quality circle methods.

Problems are identified and solutions developed and implemented. Specific practices are fine tuned for increased effectiveness.

Information on progress is collected, summarized and passed upward to the school level. Ideas are shared with other departments in a cooperative effort to achieve the improvement goal.

Without these types of actions at the department level, schoolwide improvement projects are very difficult to implement. The department clearly plays a key role in causing school improvement to occur.

## Strengthening the Core Curriculum

This type of project is focused on improving student performance in the "core" curriculum in a department, however this is defined. Sometimes the core is defined as those courses (or course options) required of all high school students. Sometimes the core will be defined as those courses, required or not, in which the priority goals and objectives discussed earlier are concentrated. No matter how defined, a department project focused in this area has potentially high impact because of the relatively large numbers of students affected.

Projects focused on the core curriculum generally begin by studying student performance and identifying areas for improvement. Depending on specifics, curriculum development and changes in instructional tactics may be called for. The department team designs these, prepares an action plan and implements it. The project may seek to increase the consistency of instruction in the core curriculum by harmonizing the efforts of teachers teaching different sections of the same course. Or it may fill in a curriculum or assessment gap that was causing students problems. Another emphasis may be on improving the articulation from one grade level to another or from school to school.

Once implementation commences, the team begins monitoring and course correction activites. The department team, probably working

cooperatively with a central office curriculum specialist, where available, is an ideal focal point for introducing and driving improvements in the core curriculum in high schools.

## Extending Learning for Students

This last application of the goal based management approach to department level projects also focuses on student performance in department courses. However, instead of focusing on core outcomes as did the last example, we will look at the department's role in pushing the outer limits of learning within the curriculum. It's here where we're trying to define many of our concepts of "excellence" at the high school level.

Projects of this type will be focused on student performance in and at the upper end of the elective curriculum. The students with a heavy concentration or major in the department will be the target audience. As with a project focused on the core curriculum, here too we will begin by looking at student performance.

The department team identifies ways to extend learning for the highest performing students. Potential curriculum extensions are identified by the team, with sub-groups forming to develop proposals. 7 .. are then reviewed by the whole group, with those that are approved drawing support within the team. Cooperative agreements are made to pilot test and evaluate different approaches, with the work shared among several members. Projects might include coordination of community placements, development of guided self-study procedures, design of project-based seminars or the creation of performance juries, to name a few possibilities. What's important is that the effort to push the limits is a cooperative effort sponsored within the department.

Once implemented, the projects are monitored and evaluated as with any other department level effort, judging effectiveness based on student performance improvement.

The preceding five examples illustrate the range of projects available to department teams, and the potential power of those teams to improve high school effectiveness through very specific and focused action. Let's turn now to a discussion of the issues that are likely to affect whether or not high school departments can, in fact, live up to their potential.

## 4. Toward Departmental Effectiveness: Issues to Resolve

So far in this paper we've presented an uncommon view of the high school department. We've described more potential than current reality. In this section, we'll turn to a brief discussion of the hinge factors that seem particularly significant in determining whether the high school department can achieve status as a new force for improvement. These observations have been shaped by Northwest Regional Educational Laboratory's experience in the past decade working specifically in the area of high school improvement.

### Issue #1 - Ambiguous Expectations

The mission of the high school department is rarely articulated in high school policy. Most often the department appears to be a passive administrative arm that communicates with a loosely federated group of teachers who primarily have scheduling problems in common. Its status is more a function of historical precedence than of clear organizational intention. We've argued that the power of the department as a focal

point for change and improvement has been underestimated. However, we doubt that its potential can be realized without the introduction of specific expectations for performance. This is a school level and perhaps district level issue.

Using the same decision making and consensus building techniques as those we've refered to in this paper, district and building leaders will need to raise the level of consciousness about the practices of effective departments. Increased awareness will set the stage for policy making and the delineation of clear expectations. Policy and expectations will stimulate and legitimize action.

## Issue #2 - Competing Priorities

In schools, as in most other organizations, there are too many wants and needs chasing too few resources. New programs from the central office, a change in procedures from the principal's office, a new curriculum sponsored by a professional organization, all legitimate in their own right, find their way to the department door and compete for attention.

Also significant may be the priorities of individual teachers within the department. While the department may be the key work group with which teachers identify (as we argued earlier), the affiliation with any work group at all may be weak due to the isolation induced by work conditions faced by most teachers. Individual teachers may see their own priorities as being significantly more important than any of the organization's. Under these conditions, the front-end team-building activity described earlier is essential.

Introducing a new role for the department will probably require a period of relief from competing implementation requirements. Some

players, such as a central office curriculum specialist, who would normally champion new programs, may instead play a service role in helping the department build its cwn capability to improve student performance. We believe that central office and building leaders will need to show this kind of support for their high school departments if they expect their increased expectations for departmental effectiveness to be realized.

## Issue #3 - Too Little Time

When we raise our expectations for departmental performance we are at the same time expecting the activity levels in departments to increase well over what they have been in most high schools. Where do we get the additional staff time to execute new responsibilities? Part of the answer is, we believe, found in controlling the competing priorities discussed above. This achieves the result of freeing the available time for focus on departmental issues. Another factor that mitigates the time problem is the level of cooperative work called for in the departmental expectations that have been spelled out in this paper. By spreading tasks across a team, we make maximum use of the professional time available to work on department projects.

Beyond the conservation and good use of available time, we must look at other methods that actually increase staff time. Various proposals have been made for extending the contract year for professional activity. Available program improvement dollars could be earmarked for staff time that is devoted to department project development. Some have advocated reducing the number of course preparations per teacher, which would preserve energy for department projects.

There is probably no single solution to the time issue. We will probably need to take several lines of action to achieve a satisfactory result. School leaders, through collaboration with their staffs, will probably have to find acceptable local solutions.

## Issue #4 - Different Skills

No teacher or administrator preparation program that we are aware of teaches the skill set we have identified as necessary for departmental effectiveness. Problem solving, consensus building, student performance analysis, curriculum alignment and all the others require specific skills to be applied. Few have received specific education in any of them. We need to do better.

Participation in the effective department is a role requiring specific professional skills. We need to define a staff development agenda to systematically introduce and strengthen the needed skill set. This is another support function that will need attention from district and building leaders.

## Issue #5 - Enough Support

Increasing department effectiveness is like any other improvement effort. It needs sustained support to flourish. Throughout these issues, we have noted what support "means" when it comes to changing the high school department's role. Clearly support means more than just giving permission for the role to change. It means setting expectations, controlling competing priorities, allocating time, developing staff capabilities and many more related activities.

Central office policy-makers, curriculum and instruction specialists, building administrators and the heads of departments all must exert the leadership support needed at each level to cause change to

occur. It seems to us that these leaders must agree on strategy, work from the same game plan and make a visible commitment to the long haul before high school staff members will have the confidence needed to push ahead.

Now let's return to our central thesis. The department can be a major force for improvement in America's high schools. We have also advocated adopting the philosophy of continuous improvement and using the methods of goal based management. With adequate support, we believe that the department has the capability to significantly alter achievement levels in high schools over the next decade. The challenge lies ahead...and is yours.

## Notes

1. Recent reports on the high school include the following:

   Boyer, Ernest L., _High School_. 1983.

   Education Commission of the States, _Action for Excellence: A Comprehensive Plan to Improve Our Nation's Schools_. 1983.

   Sizer, Theodore R., _Horace's Compromise_. 1984.

   The National Commission on Excellence in Education, _A Nation at Risk: The Imperative for Educational Reform_. 1983.

   Twentieth Century Fund Task Force on Federal Elementary and Secondary Education Policy, _Making the Grade_. 1983.

2. See: Hord, Shirley M. and Murphy, Sheila C., "The High School Department Head: Powerful or Powerless in Guiding Change?". Paper presented at the annual meeting of the American Educational Research Association, Chicago, 1985.

3. Rutter, Michael, et al., _Fifteen Thousand Hours: Secondary Schools and Their Effects on Children_. Cambridge, Mass.: Harvard University Press, 1979.

4. Personal communication from Robert Blum, Goal Based Education Program, Northwest Regional Educational Laboratory. Commenting on results of high school followup interviews in 1984 - 85.

5. Visitation guidelines and high school case studies from the U.S. Department of Education _Secondary School Recognition Program_.

6. Sizer, 1984.

7. Goodlad, John, _A Study of Schooling_. 1983.

8. Northwest Regional Educational Laboratory, _Effective Schooling Practices: A Research Synthesis_. 1984.

9. See for example: Sparks, Georgea M., "Synthesis of Research on Staff Development for Effective Teaching." Educational Leadership, 41:3, November, 1983.

10. See: Behr, George, "Test-Wiseness: Using Test Information for Planning Instruction." Paper presented at the Alaska Design Conference, NWREL, Portland, Oregon, February, 1982.

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