

Cause and Effect Analysis

We are getting better at addressing our educational challenges. We are moving away from a “band aid” approach (putting “quick fixes” on our most immediate problems) to analyzing our challenges thoroughly so that we may deal effectively with the cause of the problems. It becomes evident that our analysis and problem solving attempts are complicated. Complicated because most of our challenges are complex and cannot be linked to just one cause.

School Improvement can be accomplished by addressing the challenges systemically. First, educators need to develop databases so that the needs are documented rather than perceived. (If problems are perceived, but not supported by data, ways to collect objective and/or subjective data should be developed.) Second, when adequate, accurate, disaggregated data are available and indicating problems, educators will want to further analyze problems in an attempt to gain insight on root cause(s). Once root causes are identified, it is then possible to incorporate potentially productive strategies and interventions TSIP.

In schools, there are a limited number of areas (within our control) that can be considered causes for our challenges. The causes (and the strategies or action) are related to the following areas:

Learning Environment
Curriculum
Instruction
Assessment
Time
Organizational Processes
Structure
Policies
Resources/Facilities
Students
Educators
Parents
Community Members

IF the causes are related to these areas,

THEN the actions to effectively deal with these causes can also be found in the same areas.

DATA >> CAUSES >> ACTION

LEARNING ENVIRONMENT--Classroom & School

- **Is the learning environment perceived as a positive school culture (with an academic focus)?**
 - ** Conduct surveys, interviews, focus groups to determine if the learning climate in our school is positive for all students groups, teachers, support staff, parents and community members. Perceptions of support, positive relationships, acceptance of diversity, levels of cooperation and tolerance among and within all groups are significant conditions. Analyze results to identify conditions felt to be positive so that those opportunities may be maintained. Identify negative conditions to study, develop strategies to improve. Then implement, evaluate, and modify or improve based on feedback.
 - ** Identify current incentives and opportunities for recognition (for achievement, improvement, participation). Identify potential leadership opportunities that would be motivating to students.

- **Is the learning environment one that is orderly, safe, and secure?**
 - ** Engage teachers and staff (and students) in developing preventive measures including rules, routines, positive incentives and reactive measures with appropriate consequences. It is important to develop ways to deal with repeat offenders include opportunities to “relearn” appropriate social behaviors.

 - ** Consult experts/research to be sure all adults are knowledgeable about signs of potentially serious inappropriate behaviors (indicators or drug/alcohol use, depression, bullying, gang membership, etc.)

 - ** Engage in continuous monitoring to ensure the effectiveness of preventive and reactive measures in promoting appropriate student behavior and relationships.

- **Is the learning environment one that fosters a sense of belonging and an acceptance of diversity (of views, opinion, of races, nationalities, of groups,)?**
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- **Additional questions?**
 - ** **Additional actions/strategies.**

ORGANIZATIONAL PROCESSES

- **Is the faculty and staff supportive and encouraging of positive change, collaboration, and creative problem solving?**

- ** A common characteristic of high performing schools is a willingness to make organizational changes to benefit student learning. Engage staffs in collaboration and creative problem solving to acknowledge obstacles to school improvement and to identify strategies to overcome obstacles.

- **Are communication processes effective (e.g., open flow among all stakeholders, “need to know” information given in an adequate and timely manner, etc.)?**

- **Do school personnel work effectively as teams exhibiting supportive relationships and high quality outcomes?**

- ** Provide training for teams to ensure productive functioning (roles and responsibilities, meeting agendas and procedures, effective use of planning time)

- ** Establish horizontal (within grade/content area) and vertical (across grade/content area) structures to enhance communication, relationships, and decision making.

- **Are decisions and solutions to problems developed collaboratively with input of key personnel and stakeholders? commitment generated?**

- ** Ensure that school personnel have opportunities for meaningful collaboration and influence in key decisions that affect their work.

- ** Opportunities for professional interactions and collaboration across the district.

- **Are principals and teachers held accountable for student performance (improved performance related to the standards)?**

- ** Teachers and principals must have/develop clear expectations for student performance. They then must be given adequate resources and support (e.g., time for collaborative planning, instructional assistants to provide additional practice time or tutoring for needy students, supplementary materials, professional development opportunities). Facilitate work sessions to allow for development and full understanding of standards and for training in effective instructional strategies.

- ** Recognition and reward --not counterproductive to team functioning and intrinsic motivation.

- **Additional questions?**

- ** **Additional actions/strategies.**

TIME

- **Do we use the available time effectively?**

- ** Study the total school calendar. Identify those days that have been less than productive. Identify ways to use those days more effectively.
- ** Study the use of time during the total school day to determine how to find more instructional time.
- ** Study the number of interruptions during the day (schoolwide and classroom). Interruptions could be intercom announcements, unexpected events (only momentary notice given), disruptive students, disorganized instructors, parent requests, etc. Identify ways to minimize these interruptions.
- ** Study the amount of time teachers' spend in noninstructional activities. Identify strategies designed to reduce that time.
- ** Study the possibilities of going to year round school year.

- **Is instructional time allocated effectively for reading and math?**

- ** Study the amount of time allocated to reading and math (or any given subject area). Determine if it is appropriately allocated to ensure adequate instruction in reading and math for each student group (struggling, average, and high achieving). Identify strategies to appropriately allocate instructional time to reading and math. Design ways for needy students to have extended learning time--tutoring, practice.
- ** Determine if students receive reading and math instruction at the potentially best learning times. Time can be distributed throughout the school day, but ensure a protected block of quality time, usually in the morning.
- ** Determine if additional time for tutoring can be found in the school day, such as before or after school.

- **Additional questions?**

- ** **Additional actions/strategies.**

CURRICULUM

- **Is the “taught” curriculum aligned with the State Frameworks and Terra Nova objectives?**

- ** Engage teachers in developing curriculum content maps (similar to pacing guides). Answers the question--What do we want our students to know and be able to do? by identifying important declarative knowledge and procedural knowledge. Ensure aligned with State Frameworks and Terra Nova objectives and other initiatives.
- ** Ensure articulation within and across grade levels (i.e., scope and sequence)--K-12. Eliminate gaps and redundancy.
- ** Identify possible area of integration across content areas.
- ** Develop a timetable for systematic review and renewal of content areas.

- **Is the “taught” curriculum aligned to student needs?**

- ** Use available student performance data to gear curriculum to student areas of need--weakness or strength.
- ** Develop instructional strategies to preassess student knowledge (by activating prior knowledge) to build, correct, or extend knowledge base
- ** Identify challenging, but attainable expectations or standards for student performance. (for advanced, proficient, and partially proficient students.)

- **Are appropriate and adequate curriculum materials available?**

- ** Identify important instructional materials (basic and supplemental), events, and technology--on curriculum content maps.

- **Are higher level thinking skills (learning to learn skills, Habits of Mind) integrated into the curriculum? (our student just can't think! are not responsible for learning)**

- ** Identify important higher level thinking skills (learning to learn skills, self-regulated or self-directed learning, Habits of Mind)--on curriculum content maps.
- ** Important affective curriculum objectives (e.g., character traits) can also be identified.

- **Additional questions?**

- ** **Additional actions/strategies.**

INSTRUCTION

- **Do our instructional practices align with what is known about efficient learning and effective teaching from educational research (e.g., the most productive and effective strategies to promote student academic performance and motivation to learn)?**

- ** Ensure consist high quality everyday practice in every classroom. Requires active monitoring, encouragement, reinforcement, collaborative problem solving, etc.
- ** Engage teachers in discussing teaching philosophy to encourage consistency of approach across grades and content areas.
- ** Work with teachers to develop learning opportunities to address performance levels 4 & 5. This requires (the use of such strategies as):
 - * teaching thinking skills
 - * practice using reasoning or higher level thinking (“minds on”)
 - * applying knowledge in ways that are meaningful and relevant to students--relevance to life outside school.
 - * “hands on” using manipulatives, experiments, learning centers, etc.
 - multiple intelligences to help students assess, strengthen, and use to learn more productively.
 - * activators of prior knowledge (to preassess student knowledge or level of understanding)
 - * graphic organizers to help students organize their knowledge and process their learning
 - * cooperative learning, peer tutoring, or peer mediated instruction
 - * project based activities and experiences
 - * ACTIVE ENGAGEMENT, discussing and interacting with other people (adults, peers) and technology in stimulating, interesting activities (rather than ditto worksheets).
- ** Help teachers incorporate varied task structures (direct instruction or whole group activities, small groups or partner activities, learning centers, independent practice or projects, etc.), differentiated instruction, and appropriate adaptations and accommodations. Focus on ways to incorporate enrichment activities; timely opportunities to reteach, remediate, extend practice opportunities; numerous opportunities for feedback.

- **Do our students retain important knowledge and skills?**

- ** Engage teachers in developing appropriate homework, individualized and interactive, if possible; incorporating systematic review of major concepts, skills (or extension of--); adequate opportunities for internalization (massed to spaced practice).
- ** Teachers have and clear understanding of learning expectations. They clearly communicate learning expectations and provide opportunities for students to summarize, evaluate, and share what they are learning.
- ** Teachers help students develop strategies for memorizing (mnemonics, pegboards, etc.).
- ** Teachers provide ample opportunities for students to apply skills in a variety of conditions or situations so that successful transfer is attained.

- **Do we want to adopt/adapt an available instructional “program?” OR Are the current instructional “programs” working effectively?**

- ** Packaged programs that meet your needs may be readily available. Just be aware that there is tendency to “buy into” available programs in order to get a “quick fix.” If you are at the decision point, engage in a well structured decision making process. Clearly identify the criteria for selection and assess the options against those criteria. Keep in mind that a strong possibility is to develop a program of your own that would be

tailored to meet your students' needs.

** With existing programs that have not been throughly or recently evaluated, design a process to do that. Make adaptions or changes in light of the results.

• **Additional questions?**

** **Additional actions/strategies.**

ASSESSMENT

- **Are students required to show their understanding of knowledge in a variety of ways?**

- ** Work with teachers to develop a range of assessment strategies--including tests, quizzes, or checks of knowledge, informal monitoring and questioning, teacher assessments, student self-assessments, project or meaningful use tasks. Student options may be incorporated. Assessments move beyond recall of information to requiring students' use of complex reasoning and application (or use) of knowledge. Assessments involve settings, situations, roles align with the real world outside the classroom.

- Is the level of student success satisfactory?

- **Do students perform poorly on standardized tests (less than is expected)?**

- ** Students need to be given adequate instruction and practice like they are assessed. Periodically require students to respond to "standardized test-like" formats, questions, and time limits. Focus on helping students develop test-taking skills as well as content understanding.

>>others

- **Are students aware of performance expectations?**

- ** Teachers can develop (or collaboratively develop with students) quality criteria or rubrics for major assignments or projects. Benchmarks (or grade requirements) are incorporated. Models for the various levels of quality are provided. Rubrics communicate appropriate level of difficulty and challenge.

- **Are adequate and timely supports in place to "catch up" students who are not performing to expectations?**

- ** Ongoing assessments and continual monitoring of progress can ensure identification of students needing additional instructional time. These students must be given immediate assistance to accelerate their learning to expectations before the gap between their performance and that of their peers becomes too great.

- ** Develop strategies to use time and resources in flexible ways so that student needs can be met.

- **Additional questions?**

- ** **Additional actions/strategies.**

STUDENTS

- **Do we have an accurate portrayal of who our students are so that we may accurately identify their needs?**

** Create longitudinal charts (tables or graphs) to portray important demographic information about students. Include numbers of students in grade level, gender, ethnicity, limited English Proficiency, students with and without disabilities, free and reduced lunch (economic disadvantaged), identified as at-risk, gifted & talented, in foster care + any other significant characteristics. Mobility rates and attendance figures (and tardies) provide important information that can positively or negatively impact achievement. Tracking the number of students involved in extracurricular activities and athletics can give insight into students' sense of belonging and acceptance. It is important to determine the percentage of students (each class) that are involved in at least one school sponsored activity.

- **Do our students exhibit high or acceptable levels of motivation to learn believing that they have the ability and resources to perform challenging tasks?**

** Conduct surveys, interviews, or focus groups with students (and also with teachers) to determine students' level of motivation and connection to the school. Identify strategies to improve motivation, satisfaction and belonging.

** At middle and high school years, Advisee-Advisor structures are highly recommended.

** Find ways to have frequent conferences with individual students. Engage in goal setting to foster growth in learning and personal development.

- **Additional questions?**

** **Additional actions/strategies.**

TEACHERS

- **Do we have an accurate portrayal of our instructional staff?**

- ** Develop tables that portray pertinent information about the instructional staff including educational credentials, the numbers teaching on waivers, absentee rate (substitute days). Compile pertinent information about the qualifications and training of the instructional assistants.

- **Is the instructional staff of the highest quality?**

- ** Develop strategies to hire, retain, and develop high quality educators. Enlist grade level teachers or the leadership team in interviewing and hiring potential teachers. Ensure effective mentoring and new teacher support.

- ** Use professional judgment (or teacher evaluations) to estimate the expertise and instructional effectiveness of teachers in their current assignment. Determine if the current placement is the most appropriate in terms of student needs. Provide helpful feedback to teachers to encourage improvement.

- ** Periodically (every two years) conduct a teacher satisfaction survey. Use the results to improve conditions that will increase morale.

- ** Ensure adequate resources and support (including planning time, assistance with non-instructional duties, etc.).

- **Is our staff fully committed to our vision/mission and to their role in promoting student success and motivation to learn?**

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- **Additional questions?**

- ** **Additional actions/strategies.**

EDUCATOR OPPORTUNITIES TO LEARN--PROFESSIONAL DEVELOPMENT

- **Are the existing professional development opportunities high-quality?**
 - ** Work with teachers to design high-quality professional development opportunities with content focused on student needs; of appropriate intensity, duration, approach to effect positive transfer into everyday classroom instruction. Ensure adequate opportunities to update teaching skills to incorporate best practice, research-based instructional strategies. Incorporating peer coaching opportunities is a helpful way to promote transfer and quality implementation.
 - ** Work with teachers to identify potential leadership roles willing teachers may desire. Identify appropriate compensation and recognition for those efforts.
 - ** Develop ways for teachers to observe within the school (also in other schools, other districts).
 - ** Identify (or find) special conferences, workshops, etc. that link to student needs. Support teacher participation and expect sharing at the school site.
 - ** Administrator's active support of innovative instruction is critical to reduce teacher resistance. Administrators need to develop a full understanding of the innovation, expect and support risk taking, monitor to ensure accountability, recognize and reward progress appropriately.

- **Additional questions?**
 - ** **Additional actions/strategies.**

STRUCTURE

- **Does student performance drop when they move to a new school setting?**

- ** Transitions across grade levels need to be “seamless.” That is, students need additional transition skills at those points in their schooling. Engage appropriate grade level teachers (2nd & 3rd-if primary to intermediate; 5th & 6th--if intermediate to middle; etc.) in developing activities to smooth the transition from one level to the next. Strategies could include orientations, visits, student buddies, mixed grade activities, student programs, curriculum planning for teachers, etc.

- **Are classroom teachers successful in meeting the wide range of student needs, abilities and interests?**

- ** Appropriate placement and grouping of students are critical decisions. Tracking, the permanent segregation of students into different ability groups receiving different programs and quality of instruction, is not advocated. In general, heterogeneous groupings are the most productive, but teachers need to use appropriate instructional strategies to produce the benefits (e.g., cooperative learning, differentiated instruction, etc.). Short term, homogeneous groups work well when attending to specific needs. It is important to discuss student grouping on a regular basis (i.e., a minimum of every nine weeks) and change student placements based on assessment data. *Flexibility* is key to meeting student needs. Engage teachers, who have a thorough understanding of research, in developing strategies to promote effective placement and grouping of students.

- **Are the most effective structures in place to meet the needs of special education students?**

- ** Engage teachers in determining if special education students are being served in the best ways. Inclusion, inclass, resource, or pullout are options currently in use. Develop strategies to better meet the needs of these students.

- Does departmentalization promote student achievement in target priorities?

- ** Study the

- **Would students’ needs be better served with alternative structures such as looping or multiage classes?**

- **Additional questions?**

- ** **Additional actions/strategies.**

POLICIES

- **Are current district and school policies supportive of student success and achievement?**

** Review district policies regarding attendance, tardies, discipline, grading, retention, waivers, teacher placement, teacher evaluation, etc. to ensure consistency with student and school improvement. Some of existing policies have been operating without challenge for a long time. Many of them have become accepted “ways of doing business.” Analyze current policies to determine if they are counterproductive to improvement efforts. If changes are needed, develop a strategy to ensure better alignment of policies.

- **Additional questions?**

** **Additional actions/strategies.**

RESOURCES/FACILITIES

- **Are available financial resources focused on school improvement target priorities?**

- ** Engage in Consolidated Planning.

- Are quality control and accountability measures in place to ensure the most cost efficient use of funds without threat to quality of programs and services to students?

- **Are available human resources (instructional assistants, specialists, preservice teachers, parent and community volunteers) used in the best ways to contribute to school improvement target priorities?**

- ** Develop strategies that ensure the best (most efficient) use of human resources given current conditions. Develop strategies to attract and retain the highest qualified instructional assistants and to offer additional training and development opportunities. Develop strategies to engage more people in improvement efforts.

- ** Use the focused observation option for experienced, proficient teachers who are interested in studying and implementing potentially effective strategies or programs that address school improvement target priorities.

- **Are available community resources used to foster readiness in our preschool population?**

- ** Collaborate with community agencies to establish formalized services to families, especially young children (birth - 5), including educational opportunities for parents, parenting classes, play groups, home visits, preschool, etc.

- ** Offer extended library hours with programs to attract parents with young children.

- **Are community resources readily available and accessible to meet the “survival” and educational needs of families?**

- center of services needed by students and families--psychological services social workers

- **Has additional funding been secured to contribute to school improvement target priorities?**

- ** Encourage and reward the efforts of individuals (educators and/or parents and community members) to write grants and secure funds. Work in collaboration with these individuals to ensure proper alignment with school improvement priorities. Be sure that the proposed activities are workable, not overly burdensome to educators, and can be continued after funding has expired.

- Refer to TIME

- Have facility needs been identified---

- **Additional questions?**

- ** **Additional actions/strategies.**

