Hanlonmath Newsletter

A newsletter for math teachers and administrators who work with struggling students

What works is work, working hard and working smart

Teaching Struggling Students in Math



Preparation Affects Everything!

It's just this simple, proper planning and preparation by classroom teachers prevents poor performance by their students. As Tom Landry, former Dallas Cowboy coach said; "*The only thing more important than winning is the willingness to prepare to win.*"

The best school administrators establish and communicate very clear expectations for their staffs. They also immediately check to

ensure those expectations are being implemented and provide suggestions and recommendations for those experiencing difficulty implementing them.

In terms of preparing students for success on a unit, the most successful teachers have many of the following as self-expectations:

- A. Identify what students should know, recognize, understand and be able to do on the selected unit (Specification Sheet) based on the state's academic content standards, district curriculum and mathematical content.
- B. Identify how long it should take to teach the selected unit (Benchmarks).
- C. Determine how and what to assess on the selected unit to help ensure consistency (portability) and fairness between classes of the same grade level or same subject (Assessment Blueprint).
- D. Create a parallel constructed practice test and use a highlighting system so students clearly know and understand academic expectations.
- E. Using data and experience to identify topics within that selected unit in which students traditionally experience difficulty.
- F. Share with other teachers successful teaching strategies to overcome those difficulties and/or deficiencies.
- G. Share content knowledge, resources, and expertise to address student success on the identified unit.
- H. Using data, discuss way to involve special education or ELL facilitators if specific student populations are not experiencing the same success as the general population.
- I. Examine the results of the last unit test or other testing data to further determine strengths and weaknesses of individual student's understanding of subject matter.
- J. Identify students not meeting proficiency on standards and develop a plan and timetable to remediate those students.

- K. Identify ways to introduce concepts and skills to create interest and enthusiasm.
- L. Identify connections to previously learned math and outside experiences to review and reinforce concepts and skills and address student deficiencies.
- M. Identify simple-straight forward examples that clarify concepts and skills being introduced without getting bogged down in arithmetic or variations.
- N. Establish protocols so student learning is monitored continuously, have students read, write, speak, connect, explain, and justify what they are learning as well as looking at their guided practice.
- O. Be able to visualize how student notes are set up so students can study more effectively and efficiently.
- P. Create algorithms/procedures based on concept development/connections/patterns. Place example (visual) beside the algorithm.
- Q. Use choral recitation to embed algorithms, definitions, and formulas in short-term memory. Remember to connect those to examples. Read, Think & Talk out loud so students see how you are making decisions.
- R. Create homework assignments that support instruction. More than just exercises include vocabulary, formulas, algorithms, and modeling, and explanations.
- S. Know how to close the unit by ensuring students see the big ideas and can differentiate between problems in the unit.
- T. Create a strategy to monitor student learning and prepare students to be successful on unit/chapter tests.
- U. Identify instructional practices you will change for next year to correct deficiencies and improve student achievement.

Preparation affects everything you do – your preparation affects your students and their achievement.

Bill Hanlon is the Director of the Southern Nevada Regional Professional Development Program, is a noted speaker, an author, educator, consultant and coach for schools, and is a national presenter for organizations such as AASA, ASCD, ALAS, NMSA, NASSP, NSBA, and NCTM.

He was the coordinator of Clark County School District's Math/Science Institute and was also responsible for K-12 math audits. He served as vice president of the Nevada State Board of Education, Regional Director of the National Association of State Boards of Education (NASBE) and as a member of the National Council for Accreditation of Teacher Education (NCATE) States Partnership Board. He also hosted a television series, "Algebra, *you can do it!*" on PBS Las Vegas.