A Multi-Tiered System of Supports

PS/RtI

Problem Solving/Response to Intervention

Intensive Intervention Day 3

flmtss-day3.wikispaces.com

Please go ahead and get online and go to today's wiki

Norms

- Value everyone's input/ expertise/strengths
- Remain Positive
- Be Learning Focused
- Adhere to time-ordered agenda
- Use Parking Lot

Getting Ready

- Getting online
- Puffin Browser
- Accessing the Wiki

  flmtss-day3.wikispaces.com
- Testing web-based tools – Vacations
- Review Wiki and handouts

Goals & Objectives

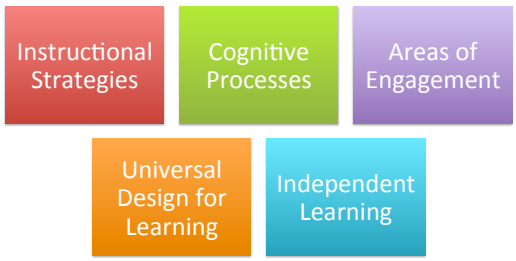
- gain awareness of a *continuum of supports that address* high probability and high intensity *barriers to* student *engagement* and learning
- *problem-solve barriers to* intensive intervention *design* and implementation
- increase *recognition of the critical infrastructure* necessary to support Tier 3 intervention design and implementation

Goals & Objectives

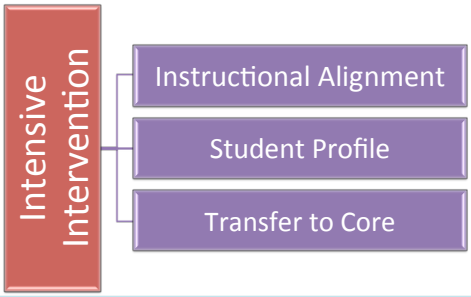
- determine how to provide *intervention support matched* to students' needs
- identify *technology* to reduce barriers to intensive intervention and provide access to instruction
- apply skills to *design and deliver* effective Tier 3 intervention, *integrated and aligned* with core instruction
- engage in *action planning* to support intervention across a continuum

Look Ahead

Look Ahead



Look Ahead



Look Ahead

- Instructional Alignment
  - Standards (skills & knowledge)
  - Instructional Indicators
- Student Profile
  - Student Characteristics
  - Cognitive Processes
  - Engagement
- Transfer to Core
  - Universal Design for Learning
  - Infrastructure

Where are you now?

- Table Discussion
  - What types of data do you currently review when problem solving intensive intervention needs?
- List examples of the data you review on the Problem Solving Data padlet
- Group Sharing

Data Sources

- FAIR – FCAT - EOC
- Classroom tests/performance
- SAT10
- Attendance
- Behavior
- AIMSweb
- Progress monitoring
- Discipline referrals
- Fluency checks

Data Sources

- Gradebook/grades
- Benchmark assessments
- Classroom observations
- iReady (Math) – Star Math – Math Facts
- Star Reading – Reading Eggs – Reading Express
- Previous FCAT scores
- Curriculum assessments
- More seems to be available for elementary than high school

What Do You Believe?

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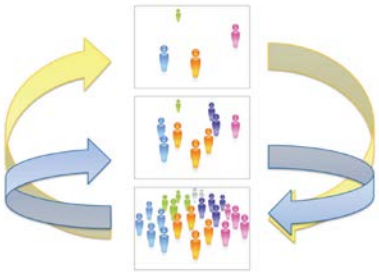
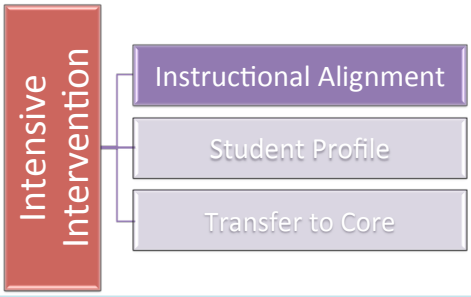


Problem Solving Intensive Needs



Standards

- Unpacking the Standard(s) – this information should come from Tier 1
  - Select a standard or set of standards
  - Circle the verbs and action phrases (skills – Do)
  - Underline the nouns and noun phrases (knowledge and understanding – K and U)
  - Identify pre-requisite skills implied within the standard
  - Determine instructional implications of the standard

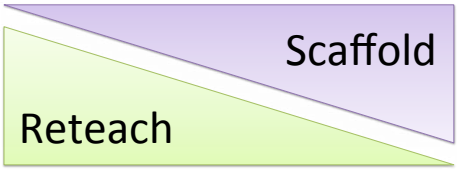
Standards

- Example pre-requisite or implied skills

  Reading | Planning and Problem Solving | Critical Thinking Skills | Maintain Focus | Task Persistence | Organization and Synthesis of Information | Self-Regulation | Active Listening | Language
- Instructional Implication
  - Review/reteach the implied skills
  - Provide scaffolding for implied skills

Implied Skills

- Remediate or Compensate?



Instructional Indicators

- Direct Instruction
  - Clear learning goals/intentions
  - Clear success criteria
  - Actively building engagement
  - Appropriate lesson presentation
  - Guided practice
  - Closure and independent practice

Instructional Indicators

- Gaining Meaning
  - Summarizing
  - Questioning
  - Clarifying
  - Predicting

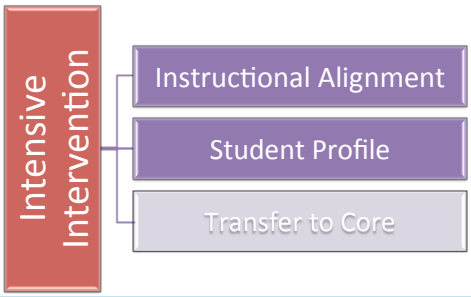
Instructional Indicators

- Knowledge integration
- Background knowledge
- Connectedness to the student's world
- Problem-based instruction

Making Connections

- Table Discussion
  - Do current data sources provide information to make decision for instructional indicators?

Problem Solving Intensive Needs



Student Characteristics

- **Self-efficacy** | the confidence that we can learn
- **Self-handicapping** | choosing obstacles to avoid failure
- **Self-motivation** | ratio of intrinsic and extrinsic motivation
- **Self-goals** | master, performance, and social goals

Student Characteristics

- **Self-dependence** | being dependent on adults for directions, goals, help, etc.
- **Self-discounting** | believing positive feedback is invalid
- **Hopelessness** | feeling like there is no point in trying
- **Social Comparison** | self-image is based on a comparison with others

Student Characteristics

- Table Discussion
  - Brainstorm ideas to address student characteristics such as hopelessness or self-handicapping behaviors
- List ideas on the Student Characteristics padlet
- Group sharing

Student Characteristics

- Mentorship
- Counseling
- Be consistent with support
- Develop an agreement with the student and hold the student accountable for success
- Peer buddies
- Student ownership of behavior
- Student interest surveys

Student Characteristics

- PBS
- Goal mapping
- Building on strengths and interests
- Build a relationship of trust
- Allowing students to work at their level of instructional success and allow them to set the next goal
- Social skills and character lessons
- Build a toolbox of the implied skills they need

Student Characteristics

- Self monitoring of progress
- Scaffolding competence through successive approximations
- Build self-confidence through small group interactions
- Modeling self reflection and problem solving
- Lesson organizer with scaffolding
- Discuss fears
- Teach coping strategies

Student Characteristics

- Action Research - Algebra Study
  - Flexible Testing
  - 20 questions covering a range of difficulty
  - Students select five to answer

Cognition & Neurology

Neurological, or cognitive, processes (such as memory) can impact engagement, learning, and achievement. Students differ widely in their cognitive processing skills.

Can This Make a Difference?

Cognition – Input (visual/auditory)

- Recognizing size, shape, and placement of text
- Recognizing line and paragraph typography
- Distinguishing subtle differences in sounds
- Distinguishing figure and background sounds

Cognition – Input (visual/auditory)

- Demo – Readability (Chrome)

Instructional Scaffolds

- Input
  - Reading/focus guides
  - Fonts and font sizes
  - Spacing between words, lines and paragraphs
  - Visually organizing text with highlighters, comments, and stamps
  - Graph paper
  - Text-to-speech
  - Personal FM systems

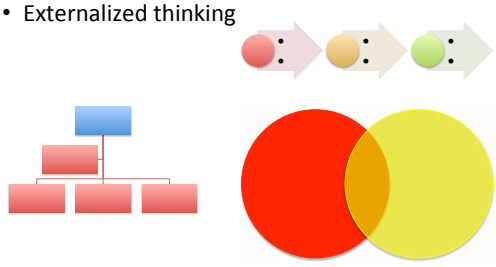
Technology Tools – Input

Cognition – Integration

- Sequencing
  - Ordering and sequencing information
  - Organizing and relating information
- Abstraction
  - Inferring meaning
  - Generalizing a text

Cognition – Integration

- Externalized thinking



Cognition – Integration

- Demo - Rationale

Instructional Scaffolds

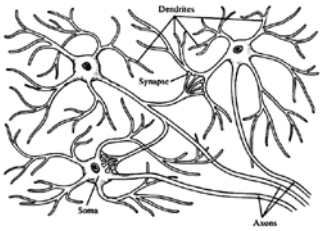
- Integration
  - Graphic organizers
  - Concept maps
  - Mind maps
  - Timelines
  - Outlines

Technology Tools – Integration

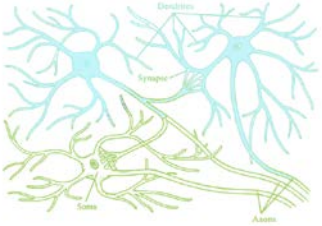
Cognition – Memory

– Short-term memory
– Long-term memory
– Engrams
– Long-term potentiation
– Long-term depression

Cognition – Engram



Long Term Potentiation



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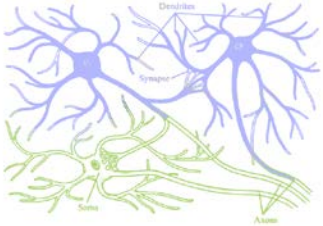

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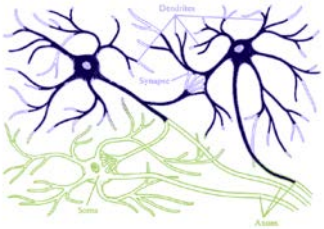
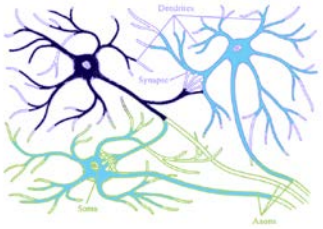


Long Term Depression



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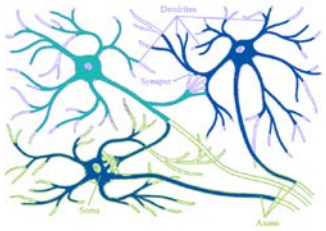

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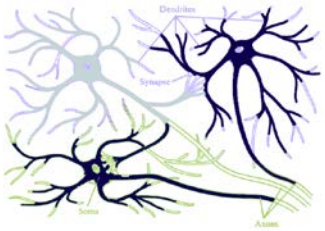
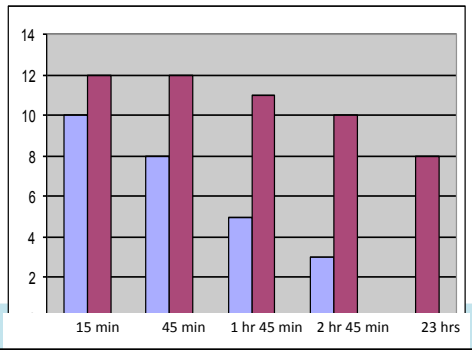


Cognition – Memory



Instructional Scaffolds

- Memory
  - Multiple text processing
  - Comparing/contrasting
  - Spread information across multiple media
  - Self-selecting icons or graphics (and sharing)
  - Notebooks / Journals
  - Review schedules

Technology Tools – Memory

Cognition – Output

- Spontaneous language
  - Self-selecting subject and related information
  - Organizing information and thoughts
- Demand language
  - Selecting related information
  - Organizing information and thoughts

Cognition – Output

- Demo – Demand speech

Instructional Scaffolds

- Output
  - Guided discussion questions
  - Cue cards
  - Graphic organizers
  - Written notes with main points highlighted
  - Extra time to prepare responses (with specific strategies)

Technology Tools – Output

Scaffold Integration

All of these types of scaffolds are most effective when used in conjunction with each other. For example, a student may be taught a strategy or system for highlighting and visually marking complex text. The text that was highlighted and marked may then be used to fill out a graphic organizer, concept map, timeline, etc. Further processing could include illustrating some of the information on the graphic organizer. That graphic organizer could then become a discussion support tool.

Adjusting Cognitive Loads

- Standards
- Identifying critical skills
- Finding the range of success
- Increasing complexity

Making Connections

- Table Discussion
  - Do current data sources provide information to make decision for cognitive needs, e.g. input, integration, memory, and output?

Engagement

As students invest in learning they can increase achievement within a lesson, across curricula, and across tiers of instruction.

Disengagement - Engagement

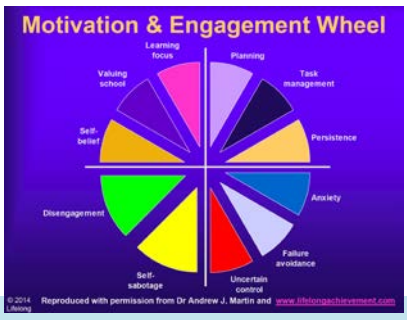
Areas of Engagement

- Engagement has been shown to decline as students move from elementary to middle to high school.
- Some studies report that 40 to 60 percent of students are disengaged by high school.

Disengagement - Engagement

Where are your middle and high school students?

Areas of Engagement



Academic Engagement

- Curricular
  - Reading
  - Writing
  - Mathematics
  - Scientific/Analytical Thinking & Reasoning
- Digital Literacy
  - Research/Information Literacy
  - Effective Use of Digital Tools
- Productivity
  - Prioritizing, Planning, Management
  - Quality Product Development

Psychological Engagement

- Self Awareness
  - Self confidence
  - Self efficacy
- Self Management
  - Impulse control
  - Stress management
  - Self discipline
  - Organization
- Decision Making
  - Planning and problem solving
  - Goal setting
  - Progress monitoring

Social Engagement

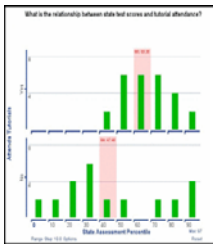
- Social Awareness
  - Perspective taking
  - Appreciating diversity
- Relationship Skills
  - Interactive communication
  - Cooperation
  - Conflict resolution
  - Seeking and providing help

Normative/Transparent/Transportable

- Web based tools
- Mobile technologies
- Laptop technologies
- Game based instruction
- STEM/Career technologies
  - Microscopes
  - Robotics
  - 3D Printers
  - Virtual Worlds

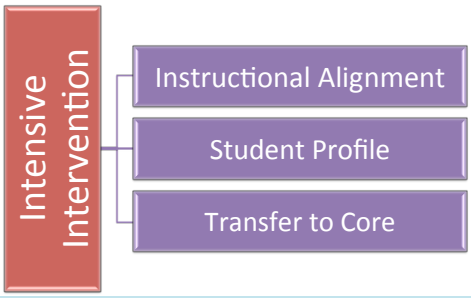
Wiki resources

- Review of Measurement Tools
- Examples
  - Moffsoft FreeCalc
  - InspireData
  - Microsoft Mathematics
  - OE-Cake
  - Spore



Technology Tools

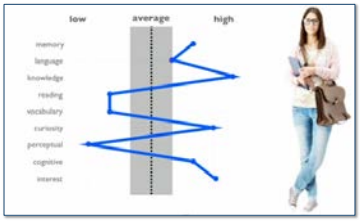
Problem Solving Intensive Needs



Universal Design for Learning

Universal Design for Learning

- The Myth of Average



Universal Design for Learning

- Options for Engagement
- Options for Representation
- Options for Expression
  - Review links in wiki

Independent Learning Skills

The more a student can independently customize a variety of technology tools and strategies to solve problems, the more that student can problem solve barriers to achievement.

Upside Down

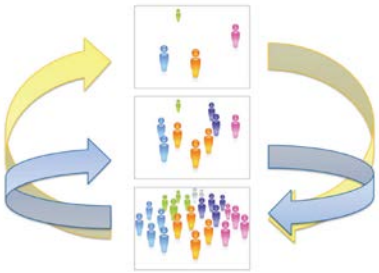
Upside Down

Upside Down

Independent Learning Behaviors

- Self progress monitoring
- Goal setting
- Time management
- Task persistence
- Organization of instructional materials and work
- Self selection of problem solving and learning tools and resources
- Self assessment of tools and resources

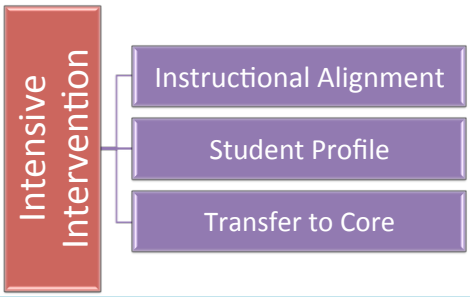
Generalizing Tier 3 to Tier 1



Infrastructure – Table Talk

- Review questions
- Complete survey
- View examples

Problem Solving Intensive Needs



Closing

- Wrap-up
  - Recap with handout
  - Review of Parking Lot
- Day 4/5 News
- Evaluation