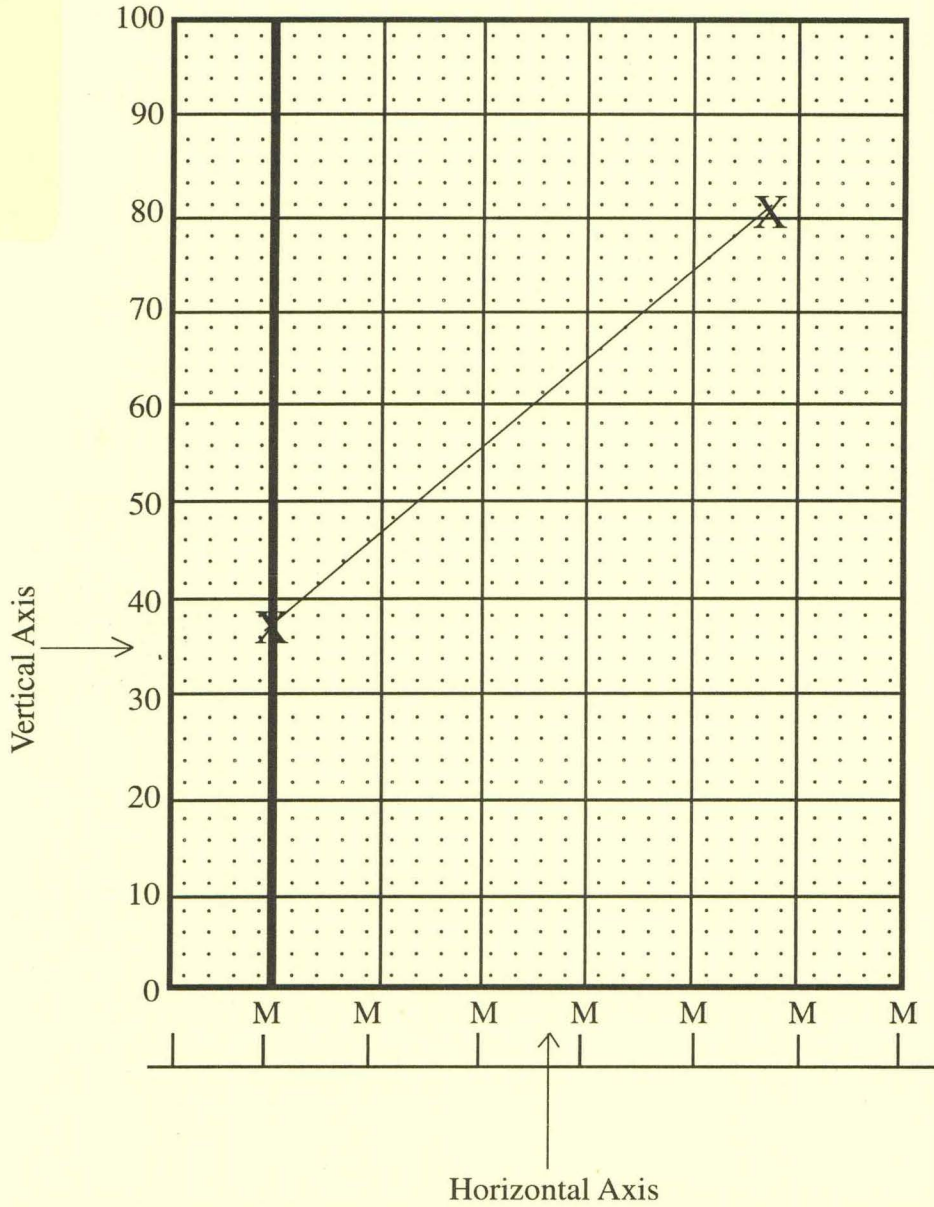


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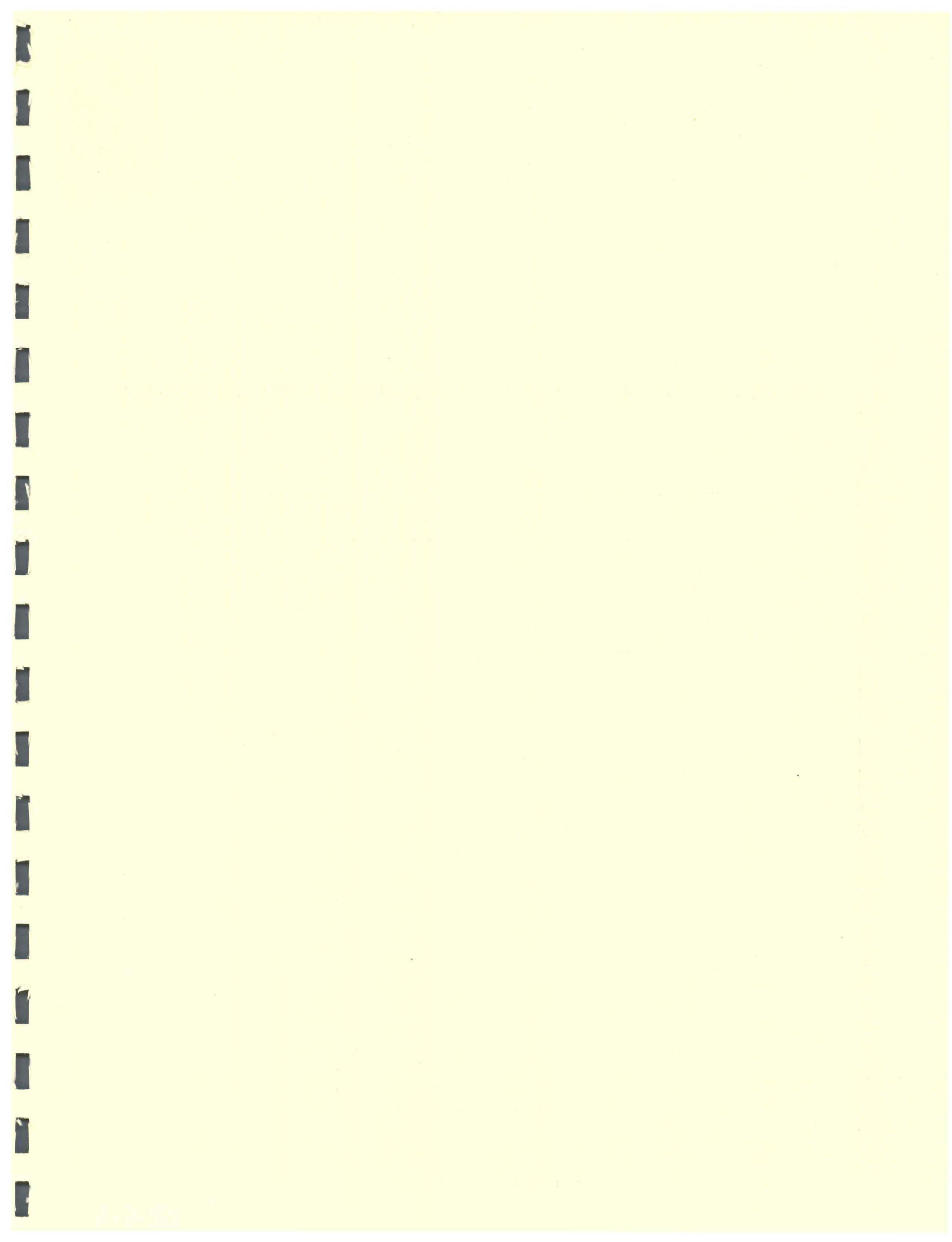
Progress Chart



PROGRESS MONITORING

Iowa Department of Education
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Grimes State Office Building
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(515) 281-3176
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PROGRESS MONITORING

for

Occupational Therapists
and
Physical Therapists

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Acknowledgments:

Lana Michelson, Special Education Trainer.

Designed exclusively for occupational therapists and physical therapists

pro•gress:
growth or
development;
advancement



*Notes, questions,
doodles column!*

Introduction

Welcome to Progress Monitoring Level II for occupational and physical therapists! We have two very simple goals for today's presentation. The first is to clarify the importance of progress monitoring and the important part you play in that process; and second, to step you through the process of progress monitoring.

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Let's begin!



Notes, questions,
doodles column!

Introduction

What is Progress Monitoring?

This is a systematic procedure for the frequent and repeated collection and analysis of student performance data. It may be used to monitor any _____ or _____ behavior.

What is the purpose of progress monitoring?

It provides the opportunity to:

- a. examine student performance _____
- b. evaluate the effect of _____ on performance

How is progress monitoring related to problem solving?

Progress monitoring is a _____ for problem solving.

***Progress monitoring is a tool and does not
replace assessment.***

pro•gress:
growth or
development;
advancement



Notes, questions,
doodles column!

Introduction

Why should I monitor progress?

- There is no way to predict ahead of time that interventions will be _____.
- There is increased emphasis on the demonstration of specific _____ for students.
- Student outcomes improve when performance is _____ regularly.
- Progress monitoring allows us to make decisions based on the _____ of performances, rather than on one or two isolated pieces of information.

➤ *Problems in using only Pre-Post Test Comparisons:*

- Insufficient data gives unreliable results
- Without structure, insignificant time lag can occur between pre- and post-test.
- Patterns of performance cannot be analyzed.



Notes, questions, doodles column!

Introduction

What are the obvious benefits of progress monitoring?

➤ For Students:

- Expectations are clear
- Increases motivation
- Student outcomes improve

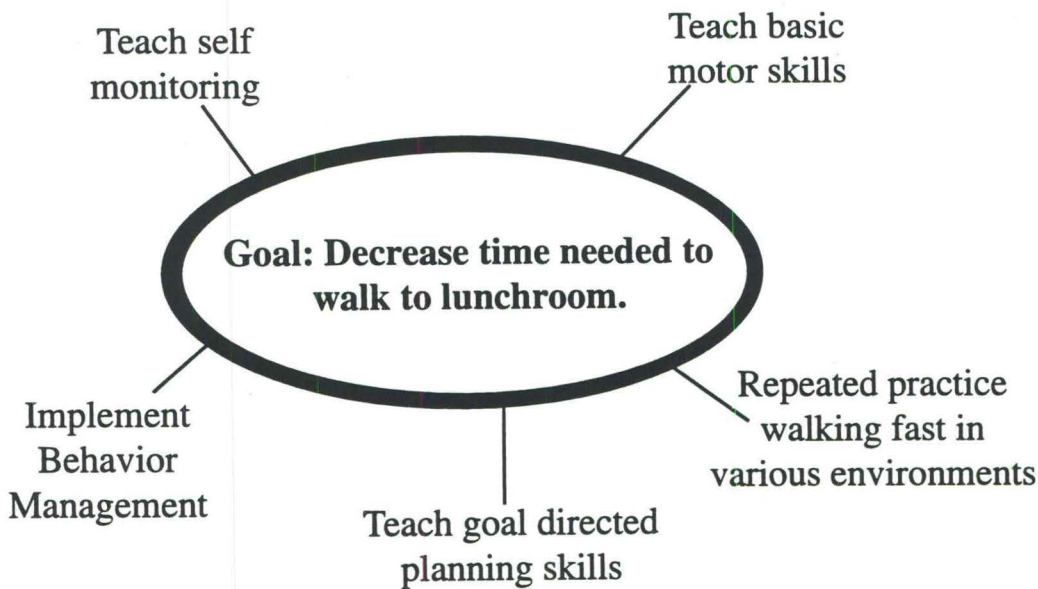
Other:

➤ For therapists and teachers:

- Feedback on interventions
- Data base for decision making
- Instructional planning improves
- Important problem solving tool

What isn't progress monitoring?

It is **NOT intervention!** Progress monitoring is a tool for problem solving. Following is an illustration that demonstrates interventions.



pro•gress:
growth or
development;
advancement



*Notes, questions,
doodles column!*

Introduction

Let's take a few minutes to assess our feelings and thoughts on progress monitoring:

A. Things I like about the concept of progress monitoring are:

B. Things about progress monitoring I'm concerned about are:

*Most of us will never do great things, but we can do
small things in a great way.*



Notes, questions,
doodles column!

Introduction

Today's presentation is designed to produce some very specific outcomes which will assist you in implementing the progress monitoring process.

Progress Monitoring: OT and PT Outcomes

- ✓ • To **define progress monitoring**, establish a rationale, and explain the relationship among progress monitoring, problem solving and CBM.
- To **define a behavior** that needs strengthening, weakening or shaping and can be counted with high reliability.
- To **define a measurement strategy**, identify characteristics, decisions, and selection of appropriate strategies.
- To **define current level of functioning**, how to collect baseline, summarize data, and determine a discrepancy.
- To select a criteria and **write a goal**.
- To select an appropriate **chart and record data**.
- To **define a decision-making plan**, its elements and analyze patterns of data.

Other (concerns):

de•fine:
to describe;
to specify
distinctly



*Notes, questions,
doodles column!*

Defining the Behavior

There are six elements necessary to effective progress monitoring:

- **1. Define the behavior.**
Specific, observable, alterable and measurable

- 2. Select a measurement _____.**
It must be appropriate to the behavior

- 3. Documenting current _____ of performance.**
Utilize baseline data

- 4. Prepare goal _____.**
An expected performance in a time frame

- 5. Create Chart**
A visual display

- 6. Developing decision-making _____.**
Establish effectiveness of the interventions

“To change your attitude is to change your life.”



Notes, questions,
doodles column!

Defining the Behavior

Why do you want to define a behavior?

So it can be observed/verified by anyone.

So accurate, reliable baseline data can be collected.

So instruction interventions can be focused on the behavior

Definition

What is the criteria used to define the behavior?

The behavior needs to be described as a terminal or generalized behavior. It should be stated such that it is specific, observable, alterable and measurable.

Outcomes

What are the outcomes for defining behavior?

a. To select a critical behavior that is specific so that everyone will focus instructional interventions on it.

b. To gain consensus on the description of the problem to be sure it is alterable.

c. To define that behavior so precisely that it can be measured (counted) reliably so that baseline data can be collected.

de•fine:
to describe;
to specify
distinctly



Notes, questions,
doodles column!

Defining the Behavior

What is a BEHAVIOR?

Let's look at some examples:

- Putting on a coat
- Writing one's name
- Standing in line
- Drinking milk from a cup
- _____
- _____
- Eating lunch
- Walking up the stairs
- Sitting without falling
- Walking down the hall
- _____
- _____

These behaviors can be identified in any **domain**. Let's look at some examples of domains:

Self-care/self-help

Social skills

Communication

Classroom/school behaviors

Mobility

Positioning

Written expression

Vocational tasks/skills

Eating

Other



Notes, questions,
doodles column!

Defining the Behavior

What is the process used in selecting a behavior?

Select a behavior that:

- ... will give the child a successful experience
- ... is a relevant part of the curriculum
- ... can be changed (increased or decreased) over time as a result of interventions
- ... occurs at a moderate rate
- ... is repeatable

Additional considerations:

- It may be necessary to do an assessment to help you correctly define the behavior.
- If the behavior you want is not in the child's repertoire, you will have to shape the behavior you want.

Following is a checklist you must use to do valid behavior definition:

- Alterable - can be changed as a result of interventions
- Measurable - can be counted with reliability
- Observable - anyone is able to recognize the behavior
- Specific - defined so that it has no more smaller components
- Terms - examples and non examples

de•fine:
to describe;
to specify
distinctly



Notes, questions,
doodles column!

Defining the Behavior

Example: Raising a Hand

1. Is it *alterable*?
 - Yes, it improves with practice
2. It is *observable*?
 - Yes, you can see him/her raise their hand
3. Can you get *specific*?
 - Yes, it can be specified (e.g. raise a hand to put on a shirt, ask a question or volunteer for a project)
4. Is it *measurable*?
 - Yes, you can specify the degree you want the hand raised (e.g. raise hand above head)

Example: Walk Up The Stairs

1. Is it *alterable*?
 - Yes, it becomes faster and safer with practice
2. It is *observable*?
 - Yes, you can see him/her walk up the stairs
3. Can you get *specific*?
 - Yes, it can be specified (e.g. walk up the stairs to get to the second floor, to reach the top of the slide, to get into the bus, etc.)
4. Is it *measurable*?
 - Yes, you can specify the degree (e.g. the number of stairs, the amount of time, etc.)



Notes, questions,
doodles column!

Defining the Behavior

> Action Verbs that are *Directly Observable*

- ◇ to drink
- ◇ to sit
- ◇ to write
- ◇ to lace
- ◇ to place
- ◇ to stand
- ◇ to draw
- ◇ to print

- ◇ to scoop with a spoon
- ◇ to run
- ◇ to type
- ◇ to remove
- ◇ to cut
- ◇ to transfer
- ◇ to zip
- ◇ to walk

> Action Verbs that are *NOT Directly Observable*

- ◇ to motor plan
- ◇ to attend
- ◇ to listen
- ◇ to concentrate
- ◇ to be goal directed
- ◇ to think critically
- ◇ to recognize
- ◇ to be aware
- ◇ to coordinate
- ◇ to contract
- ◇ to decrease muscle tone

- ◇ to be curious
- ◇ to integrate
- ◇ to feel
- ◇ to tolerate
- ◇ to think
- ◇ to discriminate
- ◇ to cooperate
- ◇ to become competent
- ◇ to comprehend
- ◇ to respond
- ◇ to perceive

de•fine:
to describe;
to specify
distinctly



Notes, questions,
doodles column!

Defining the Behavior

Operational Definition

Operational definition must be descriptive enough that two observers could independently observe the same behavioral episodes and obtain similar observational data.

Three Criteria:

1. It must be _____:

refer to observable characteristics of behavior or environmental events

2. It must be _____:

unambiguous, so that it could be read, repeated, and paraphrased by observers

3. It must be _____:

include both examples and non examples of the behavior so that occurrences and non occurrences of the behavior can be discerned



Notes, questions,
doodles column!

Defining the Behavior

STANDARD FORMAT:

Include a Target behavior name

Include a Target student name

Use Action verbs

Give examples of the *Target behavior* include examples (1) . . . , (2) . . . , (3) . . .

Give non examples of the *Target behavior* include examples (1) . . . , (2) . . . , (3) . . .

EXAMPLE #1

Balance means that Joe can position his body with both hands free, for other activities, so that he does not have to touch another person or surface.

Examples include (1) sitting while holding a book with both hands, (2) standing with hands at sides, (3) sitting on lunch bench and holding onto drink while people accidentally bump into him.

Non examples include (1) sitting with one hand on the floor, (2) standing while leaning against the wall, (3) standing while holding someone's hand.

EXAMPLE #2

Academic engagement means that Jenny is appropriately engaged in working on assigned academic material that is appropriate for her skill levels.

Examples of academic engagement include (1) attending to the materials and the task (e.g. looking at a workbook, looking at the teacher while being directly spoken to); (2) making appropriate motor responses (e.g. writing, computing, raising a hand); (3) asking for assistance (where applicable) in an acceptable manner.

Non examples of academic engagement include (1) not attending to or working on assigned tasks, (2) working on a math worksheet during reading period, (3) breaking classroom rules (out of seat, talking out, throwing something, etc.).

Behavioral Definition	NOT	A Goal Statement
Defines only a single occurrence of the behavior		Statement of the frequency, etc. a behavior will occur in the future
Includes what, where, how, when		Adds who, date(s) of completion
No criteria		Criteria must be present

de•fine:
to describe;
to specify
distinctly



Notes, questions,
doodles column!

Defining the Behavior

John's Story

Concern:

John is an elementary school student in 4th grade who is always the last one in line and the entire class has to wait for him.

Behavior:

To get in line.

Behavioral Definition

Getting in line means walking over and standing behind the last person currently in the line.

Examples:

lining up for lunch
lining up for recess

Non examples:

not to follow directions to line up
to stand up and walk elsewhere
to stand up and get in line but not within the prescribed
time period
lining up for a fire drill



Notes, questions,
doodles column!

Defining the Behavior

Sally's Story

Concern:

Sally is in 2nd grade and is served in general education with resource help. Sally's written assignments cannot be read by her teacher and she is one of the slowest to turn in her assignments.

Behavior:

Writing legibly

Behavioral Definition

Writing legibly means copying letters correctly in manuscript on lined paper.

Examples:

correctly forming letters so they can be determined

copying letters on the line

copying letters from assigned reading passage

Non examples:

letters that do not touch the line

letters that cannot be determined

letters that are reversed or missing

de•fine:
to describe;
to specify
distinctly

Defining the Behavior

Final Checklist for Defining Behavior



Notes, questions,
doodles column!

- Alterable:** Can the behavior be changed with interventions?
Yes___ No___

- Measurable:** Can you count
 - a. the number of times? Yes___ No___
 - b. the number of minutes? Yes___ No___

- Observable:** Will anybody be able to see the behavior you
want to change?
Yes___ No___

- Specific:** Can you break the behavior into smaller meaningful
parts, each more specific and observable than the original
behavior?
Yes___ No___



Notes, questions,
doodles column!

Defining the Behavior

Practice Session

Directions: Decide in each behavior below if the words form an observable definition of behavior. If not, write a behavioral definition.

1. Rides tricycle safely:

- Alterable
- Measurable
- Observable
- Specific

Alternate definition:

2. Tolerates solid food:

- Alterable
- Measurable
- Observable
- Specific

Alternate definition:

3. Independent dressing:

- Alterable
- Measurable
- Observable
- Specific

Alternate definition:

4. Independent walking:

- Alterable
- Measurable
- Observable
- Specific

Alternate definition:

5. Types accurately:

- Alterable
- Measurable
- Observable
- Specific

Alternate definition:

de•fine:
to describe;
to specify
distinctly



*Notes, questions,
doodles column!*

Defining the Behavior

➤ Activity

Individually describe a situation that exists with a student in your building where you believe some intervention is needed to make a change (motor, social skills, self-help skills, etc.)

Situation:



*Notes, questions,
doodles column!*

Defining the Behavior

Let's check our checklist for today's outcomes:

- ✓• To **define progress monitoring**, establish a rationale, and explain the relationship among progress monitoring, problem solving and CBM.
- ✓• To **define a behavior** that needs strengthening, weakening or shaping and can be counted with high reliability.
- To **define a measurement strategy**, identify characteristics, decisions, and selection of appropriate strategies.
- To **define current level of functioning**, how to collect baseline, summarize data, and determine a discrepancy.
- To select a criteria and **write a goal**.
- To select an appropriate **chart and record data**.
- To **define a decision-making plan**, its elements and analyze patterns of data.

measure:
the extent,
dimensions,
quantity



Notes, questions,
doodles column!

Measurement Strategy

Review of the components of Progress Monitoring:

1. Define Behavior
2. **Measurement strategy**
3. Current level of performance
4. Goal statement
5. Chart
6. Decision-making plan

What is a measurement strategy?

A **Measurement Strategy** is a procedure for collecting student performance data.*

Characteristics of a Good Measurement Strategy

- Measures an alterable, terminal behavior
- Systematic
- Reliable
- Valid
- Regular and frequent data collection
- Simple
- Time efficient
- Analyzes performance over time

*Note: The *measurement strategy* must be appropriate to the **behavior** being observed and **the kind of behavior change** desired.

Measurement Strategy



*Notes, questions,
doodles column!*

How and when do you currently monitor student progress?

Do your monitoring systems include all the characteristics of a good measurement strategy?

If yes, how?

If no, how could they be modified so that they would include all the characteristics of a good measurement strategy?

measure:
the extent,
dimensions,
quantity



Notes, questions,
doodles column!

Measurement Strategy

What is problematic about the behavior?

Dimension of the Behavior

Frequency: Behavior happens too _____ or too _____

- # of falls
- # of bites of food

Duration: Behavior is too _____ or too _____

- time to walk to class
- time to dress for recess

Latency: Behavior takes too _____ to begin after a prompt

- time to stand up from desk when name is called
- time to take a bite of food after prompt

➡ ➡ ➡ Measurement Strategy Decisions

1. **How** will data be collected?

- A. **Event Recording**
 - 1. frequency
 - 2. percentage
 - 3. cumulative
- B. **Duration Recording**
- C. **Latency Recording**

2. What **materials** will be used to collect data?

- A. **Permanent products**
- B. **Observation**

3. In which **setting(s)** will data be collected?

4. **Who** will collect data?



Notes, questions,
doodles column!

Measurement Strategy

Decision 1: How will data be collected?

- Event recording
- Duration recording
- Latency recording

Decision 2: What materials will be used to collect data?

➔ Permanent Product Materials

(The actual products of a target behavior)

- workbooks
- scores in grade book

➔ Direct Observation Material

(Recording form used to document observation)

- number of falls tally
- words typed per minute
- distance walked
- timer and record form for out-of-seat duration

measure:
the extent,
dimensions,
quantity



Notes, questions,
doodles column!

Measurement Strategy

Decision 3: In which setting(s) will data be collected?

Specific setting(s) must be identified based on site(s) where behavior is problematic or is expected to be displayed.

If behavior occurs in more than one setting, you should consider collecting data in all relevant sites.

Examples of settings:

classroom

home

Decision 4: Who will be responsible for data collection?

Who can collect data?

classroom teacher

special education teacher

support staff person

student

Data collection can be shared. However, it is important to consider the reliability of data collection.

Key factors in selecting data collectors:

- measurement strategy being used
- availability of personnel



*Notes, questions,
doodles column!*

Measurement Strategy

Let's Step Through An Example:

(Refer back to sample of John: John is an elementary school student in 4th grade who is always the last one in line and the entire class has to wait for him.)

1. How will data be collected?
2. What materials will be used to collect data?
3. In which setting will data be collected?
4. Who will be responsible for collecting data?

Measurement Strategy

Let's Step Through Another Example:

(Refer back to sample of Sally: Sally is in 2nd grade and is served in general education with resource help. Sally's written assignments cannot be read by her teacher and she is one of the slowest to turn in her assignments.)



*Notes, questions,
doodles column!*

- 1. How will data be collected?**

- 2. What materials will be used to collect data?**

- 3. In which setting will data be collected?**

- 4. Who will be responsible for collecting data?**



Notes, questions,
doodles column!

Measurement Strategy

Let's Review the Three Options for Collecting Data:

A. Event Recording

Used when you want to _____ a behavior occurs.

1. Use _____ recording when time is constant or number of opportunities is constant.
2. Use _____ recording when time varies or number of opportunities varies.

B. Duration Recording

Used when the concern is the _____ a behavior lasts.

C. Latency Recording

Used when the concern is _____
_____ prompt.

measure:
the extent,
dimensions,
quantity

Measurement Strategy

Group Activity

Write the group's target behavior and answer the 4 questions:



*Notes, questions,
doodles column!*

Behavior: _____

1. How will the data be collected?
2. What materials will be used to collect the data?
3. In which setting will the data be collected?
4. Who will be responsible for collecting the data?

Measurement Strategy



*Notes, questions,
doodles column!*

Once again, let's check our progress on today's outcomes list:

- ✓ • To **define progress monitoring**, establish a rationale, and explain the relationship among progress monitoring, problem solving and CBM.
- ✓ • To **define a behavior** that needs strengthening, weakening or shaping and can be counted with high reliability.
- ✓ • To **define a measurement strategy**, identify characteristics, decisions, and selection of appropriate strategies.
 - To **define current level of performance (or functioning)**, how to collect baseline, summarize data, and determine a discrepancy.
 - To select a criteria and **write a goal**.
 - To select an appropriate **chart and record data**.
 - To **define a decision-making plan**, its elements and analyze patterns of data.

Current Level of Performance (Functioning)

per•form: to complete a prescribed course of action



Notes, questions, doodles column!

Components of progress monitoring:

1. _____

2. _____

3. Current level of performance

4. Goal statement

5. Chart

6. Decision-making plan

Cheer up! Remember today is the tomorrow you worried about yesterday.



Notes, questions,
doodles column!

Current Level of Performance (Functioning)

What are the outcomes for defining current level of performance?

- Allows you to _____ baseline data
- Allows you to _____ the data in a visual form

What is the current level of performance?

1. It is behavior(s) at a specific point in time only.
2. It is behavior(s) *before* intervention begins.
3. It is compared to some standard.
4. It can be displayed on a chart.

per•form: to
complete a
prescribed
course of
action



Notes, questions,
doodles column!

Current Level of Performance (Functioning)

Why should I collect current performance data?

- To _____ the student to himself/herself.
- To compare the student with _____ :
 - Developmental expectations
 - Peer expectations
 - School rules
 - Teacher expectations
 - Research standards
 - Professional judgment
- To help in setting challenging yet _____ goals.

How do I describe current level of performance?

- 1st step: _____ baseline data
- 2nd step: Summarize that _____
- 3rd step: _____ performance standard
- 4th step: Evaluate your _____



Notes, questions,
doodles column!

Current Level of Performance (Functioning)

Collecting Baseline Data:

1. Use the same behavior defined earlier.
2. Use the measurement strategy you chose earlier.
3. Collect enough data to be:
 - _____
 - _____

Let's examine Stable vs. Representative:

What is STABLE Data?

- At least 3 measures
- Collected in appropriate setting(s)
- Collected within relatively short time period

What is REPRESENTATIVE Data?

- Teacher/parent says it is "typical"
- Accurately describes behavior as it naturally occurs

per•form: to complete a prescribed course of action



Notes, questions, doodles column!

Current Level of Performance (Functioning)

Next step:

Summarize the Data

Use a MEDIAN score

* Median = Middle

16, 22, 23

Median = 22

114, 136, 140

Median = 136

100, 107, 107

Median = 107

32, 32, 32

Median = 32

20, 24, 30, 31

Median = 27

65, 72, 80

Median = _____

48, 61, 62

Median = _____

91, 92, 94, 95

Median = _____



Notes, questions,
doodles column!

Current Level of Performance (Functioning)

Next step:

Select a Performance Standard

*A performance standard is a yardstick by which
to measure baseline data.*

Examples include:

Criteria for the next environment

Instructional placement standards

Expert judgment

Peer performance

School policy/standards

Developmental norms

Medical standards

Adult expectations

Local norms

per•form: to
complete a
prescribed
course of
action



Notes, questions,
doodles column!

Current Level of Performance (Functioning)

Next step:

Evaluate Baseline Data

Does a discrepancy exist between your student's performance and your chosen standard?

"NO" = Stop

"YES" = Answer next question

Is the discrepancy large enough for you to implement an intervention to reduce it?

"NO" = Stop

"YES" = Do Something

Last Step:

Define the Problem

*A PROBLEM is the difference between
what is expected and what occurs.*



Notes, questions,
doodles column!

Current Level of Performance (Functioning)

Exercise 1: John

1. **Collect baseline data.**

Classroom teacher will use a stopwatch to record total number of seconds between when she tells John to get in line and when he is standing behind the appropriate classmate in line on 3 consecutive observations.

Results:

Observation 1: 92 seconds
 Observation 2: 74 seconds
 Observation 3: 49 seconds

2. **Summarize baseline data:**

Find median level of performance.

Median time 74 seconds

3. **Select a performance standard.**

Performance standard: Teacher Expectation.

Teacher expects students to get up from their desks and be in line within 15 seconds.

4. **Evaluate the baseline data.**

a. Is there a discrepancy between John's performance and that of the performance standard?

Yes - 15 seconds for teacher expectation vs 74 seconds for John's median time.

b. Is the discrepancy sufficiently large to suggest that an intervention is needed? Yes

per•form: to complete a prescribed course of action



Notes, questions, doodles column!

Current Level of Performance (Functioning)

Exercise 2: Sally

1. **Collect baseline data.**

Resource room teacher will collect data on the number of letters copied correctly in a 2 minute time period on 3 consecutive sessions (M,W,F).

Results:

Day 1:	38 letters
Day 2:	40 letters
Day 3:	32 letters

2. **Summarize baseline data.**

Find median level of performance.

Median number of letters = 38 letters

3. **Select a performance standard.**

Performance standard: peer performance

5 other students copied the following numbers of letters correctly in two minutes: 90, 79, 65, 69 and 70

Median number of letters is 70 letters for her peers

4. **Evaluate the baseline data.**

a. Is there a discrepancy between Sally's performance and that of the performance standard?

Yes - Sally is expected to copy 70 letters correctly in 2 minutes. Sally's median level was 38 letters.

b. Is the discrepancy sufficiently large to suggest that an intervention is needed? Yes



Notes, questions,
doodles column!

Current Level of Performance (Functioning)

Example—

John is a 4th grader who is always the last one in line and the entire class has to wait for him. He has cerebral palsy, spastic diplegia and wears AFO but uses no other assistive devices. His median time to get in line is 74 seconds over three opportunities. Teacher expectations are to line up within 15 seconds of verbal directions. A major part of the problem is the amount of time between the teacher giving the directions and the time John starts to get up. Although John has motor planning difficulties, the PT feels he should be able to meet the teacher's expectations with specially designed instruction.

Example—

Sally is a 2nd grade student being served in a general education class with resource help for reading. The teacher says Sally's printing is not legible, and she is one of the slowest to turn in written assignments. When given three 2 minute timed tests requiring her to copy a written passage, her median score for the number of letters copied correctly was 38. The median score for five of her peers was 70. The teacher and OT believed Sally's rate of performance could improve with intervention.

per•form: to
complete a
prescribed
course of
action



*Notes, questions,
doodles column!*

Current Level of Performance (Functioning)

PRACTICE:

Write a present level of performance for your chosen behavior. To do this you probably will not have an accurate baseline. For this activity, be creative!

Checklist for writing a current level of performance

Include the following:

- student identifiers (name, grade, etc.)
- description of the problem
- median of baseline performance
- performance standard
- statement of expectations for change
- other important information



*Notes, questions,
doodles column!*

Current Level of Performance (Functioning)

Once again, let's check our outcomes list:

- ✓ • To **define progress monitoring**, establish a rationale, and explain the relationship among progress monitoring, problem solving and CBM.
- ✓ • To **define a behavior** that needs strengthening, weakening or shaping and can be counted with high reliability.
- ✓ • To **define a measurement strategy**, identify characteristics, decisions, and selection of appropriate strategies.
- ✓ • To **define current level of performance (or functioning)**, how to collect baseline, summarize data, and determine a discrepancy.
 - To select a criteria and **write a goal**.
 - To select an appropriate **chart and record data**.
 - To **define a decision-making plan**, its elements and analyze patterns of data.

goal: result
toward
which effort
is directed;
aim; end.



Notes, questions,
doodles column!

Goal Statements

Components of Progress Monitoring:

1. Define Behavior
2. Measurement strategy
3. Current level of performance
- 4. Goal statement**
5. Chart
6. Decision-making plan

What is A GOAL? _____

The GOAL is the expected performance at the end of a predetermined goal period.

- Takes into account a student's current level of functioning
- Precedes and defines the monitoring system

Time Frames _____

Annual Goal

The annual **goal** represents the change in student performance expected to occur over **one year's time**. It represents behavior addressed in the student's present level of educational performance (PLEP).

Short Term Objective

The **short term objective** is based on the conditions, task, and criteria defined in the long range goal. It describes smaller changes over time.



*Notes, questions,
doodles column!*

Goal Statements

Working With Progress Monitoring Goals

The **progress monitoring goal** can represent the annual goal with attached criteria, the short-term objective or a smaller component of the short-term objective.

Types Of Goals

Academic - ascending

Non academic - ascending or descending

What do goals look like?

Academic

goal line will be ascending
performance will be expected to increase

Nonacademic

the goal may be either to increase or decrease a certain behavior

Preference should always be given to a goal reflecting the increase in an appropriate behavior, but sometimes it is easier to monitor the inappropriate behavior.

goal line will be **Ascending** when increasing
appropriate behavior

goal line will be **Descending** when decreasing
inappropriate behavior

goal: result toward which effort is directed; aim; end.



Notes, questions, doodles column!

Goal Statements

COMPONENTS OF A GOAL

Conditions:

_____ , _____ , _____

Behavior:

Criterion:

measures _____ and sets

the _____ evaluation

Student:

The _____

Creativity is so delicate a flower that praise tends to make it bloom, while discouragement often nips it in the bud. Any of us will put out more and better ideas if our efforts are appreciated.

— Alex F. Osborn

American advertising executive

Goal Statements



Notes, questions,
doodles column!

What are conditions?

Academic

description of the _____ to be used

description of the difficulty _____ of text

date which _____ is to be achieved

Non Academic

setting in which the _____ is to be displayed

_____ to elicit behavior

date which goal is to be _____

What is the behavior?

Behavior is the *description of the task to be performed.*

goal: result toward which effort is directed; aim; end.

Goal Statements

What is the criterion?



Notes, questions, doodles column!

Definition: The goal criterion is a measurement of the effectiveness of intervention strategies and sets the standard for intervention evaluation.

Questions to Consider When Selecting the Criterion:

- (1) Is the standard that I chose earlier acceptable?
Yes _____ No _____
- (2) Does the level of performance of the standard need to be modified for this student?
Yes _____ No _____
- (3) Are there environmental conditions that need to be in place for the student to achieve?
Yes _____ No _____
- (4) Have I considered peer performance of other students on this task in setting a criterion?
Yes _____ No _____
- (5) Have I considered the number of opportunities for learning in setting my criterion?
Yes _____ No _____



*Notes, questions,
doodles column!*

Goal Statements

Selecting The Criterion (Standard)

- may be different for each child
- could represent the standard of the mainstream
- represents a reasonable level of performance for this student

Kinds Of Performance Standards

Criteria for the next environment

Instructional placement standards

Expert judgment

Peer performance

School policy/standards

Developmental norms

Medical standards

Research standards

Adult expectations

Parents

Teachers

Employers

Local norms

goal: result toward which effort is directed; aim; end.



Notes, questions, doodles column!

Goal Statements

Write “Smart” Goals

SPECIFIC

MEASURABLE

AMBITIOUS

REALISTIC

TERMINAL

These five ingredients are needed to create a goal that will produce results.



Notes, questions,
doodles column!

Goal Statements

Examples:

➤ John

Condition: 20 weeks, sitting at desk, teacher gives directions to line up

Behavior: Stand up and get in line behind the last person currently in line

Criterion: Standing in correct place in line within 15 seconds after directions on 3 consecutive opportunities

GOAL

In 20 weeks, when sitting at his desk and told by his teacher to get in line, John will get up and be standing in the correct place within 15 seconds on 3 consecutive opportunities.

➤ Sally

Conditions: 32 weeks, lined paper, 2nd grade passage from the school curriculum

Behavior: copy letters correctly

Criterion: 70 letters in 2 minutes for 3 consecutive sessions

GOAL

In 32 weeks, when given a written passage from a 2nd grade reader, Sally will correctly copy 70 letters, in 2 minutes, in manuscript on lined paper for 3 consecutive sessions.

goal: result toward which effort is directed; aim; end.



Notes, questions, doodles column!

Goal Statements

Activity:

1. Create a goal for your defined behavior in your small group.

2. Answer the following questions about your goal:
 - a. Does it ascend or descend?

 - b. What are the behavior and conditions?

 - c. What standard do you think you might use?

3. Share your goal with person next to you.



Notes, questions,
doodles column!

Goal Statements

Once again, let's check our outcomes list:

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- ✓• To select a criteria and **write a goal**.
 - To select an appropriate **chart and record data**.
 - To **define a decision-making plan**, its elements and analyze patterns of data.

chart: graphic
representation
of independent
variables



*Notes, questions,
doodles column!*

Charting

Components of Progress Monitoring:

1. Define Behavior
2. Measurement strategy
3. Current level of performance
4. Goal statement
- 5. Chart**
6. Decision-making plan

What You've Done So Far . . .

1. Defined a behavior.
2. Chosen a measurement strategy.
3. Collected baseline data (3 samples).
4. Compared baseline median to a standard.
5. Described current level of performance.
6. Decided upon a goal.

Now You Are Ready To . . .

1. Enter your initial data on a graph.
2. Monitor progress.



Notes, questions,
doodles column!

Charting

Why Put Data on A Chart?

1. Creates a _____ picture
2. Allows for _____ making
3. Helps _____ learning
4. Provides _____
5. Makes data _____ to interpret

*Graphed data are easier
to interpret than data
displayed in a table!*

A Chart Visually Displays:

Beginning Performance Data

Projected Performance Data

Actual Performance Data

chart: graphic
representation
of independent
variables



*Notes, questions,
doodles column!*

Charting

Steps To Set Up A Chart

1. Fill in personal information
2. Write the goal on the chart
3. Label and number the vertical axis
4. Label horizontal axis (Fill in the Monday dates)
5. Plot baseline data
6. Draw line to separate baseline data from monitoring data
7. Place an X at the point representing the median baseline score
8. Plot goal data point
9. Draw goal line/aim line
10. Plot data points

chart: graphic representation of independent variables



Notes, questions, doodles column!

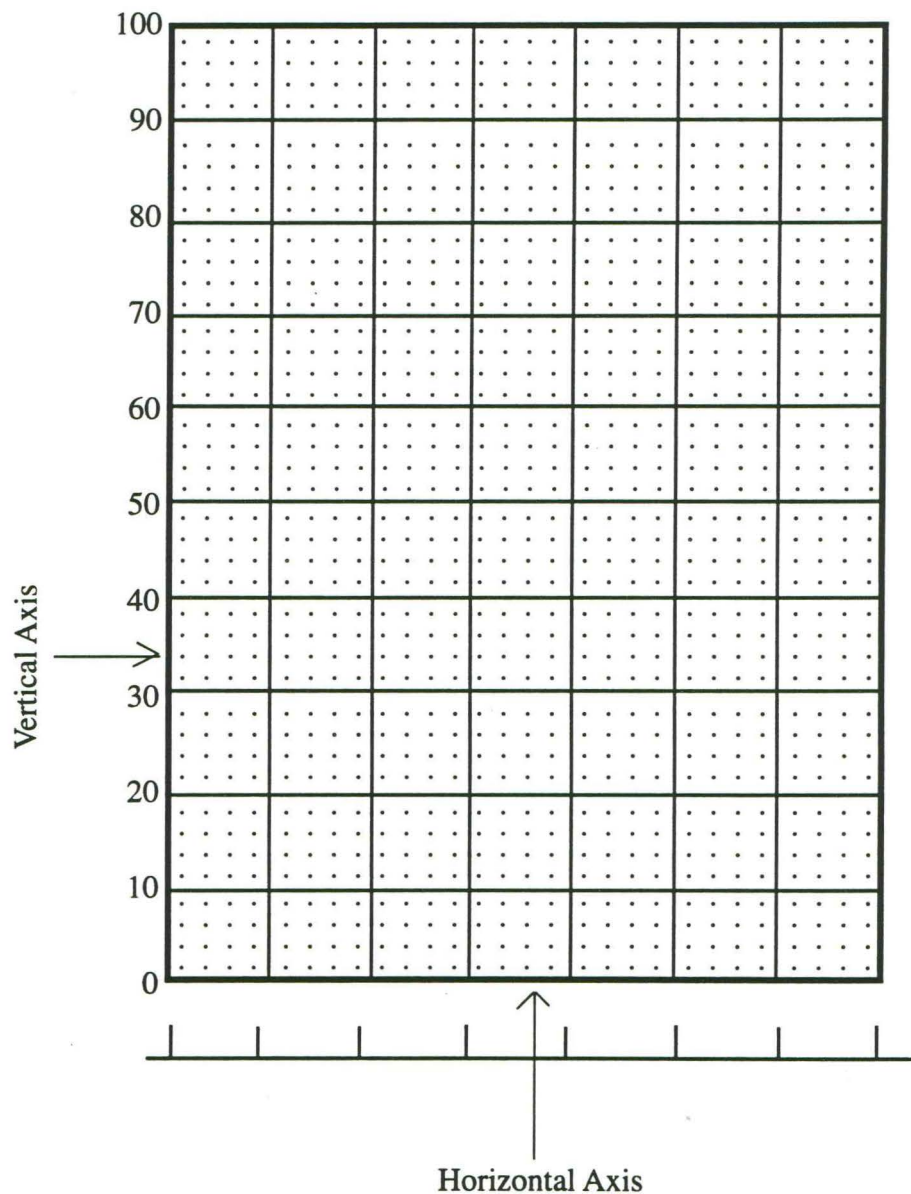
Charting

3. Label and number the vertical axis

Criteria for this axis is determined by the measurement you have identified in the goal (in this case it is seconds). To have a broad enough range to cover both ends of the spectrum we will start with 0 seconds and go to 100 seconds.

Name: Arnie Johnson Grade Level: 5th

Goal: In six weeks when given the verbal prompt "Arnie walk to the kitchen," Arnie will respond within 10 seconds of the prompt for 3 consecutive times.





Notes, questions,
doodles column!

Charting

4. Label the horizontal axis and fill in the dates. For this example, we started with the second vertical line to record this information.

Name: Arnie Johnson Grade Level: 5th

Goal: In six weeks when given the verbal prompt "Arnie walk to the kitchen," Arnie will respond within 10 seconds of the prompt for 3 consecutive times.

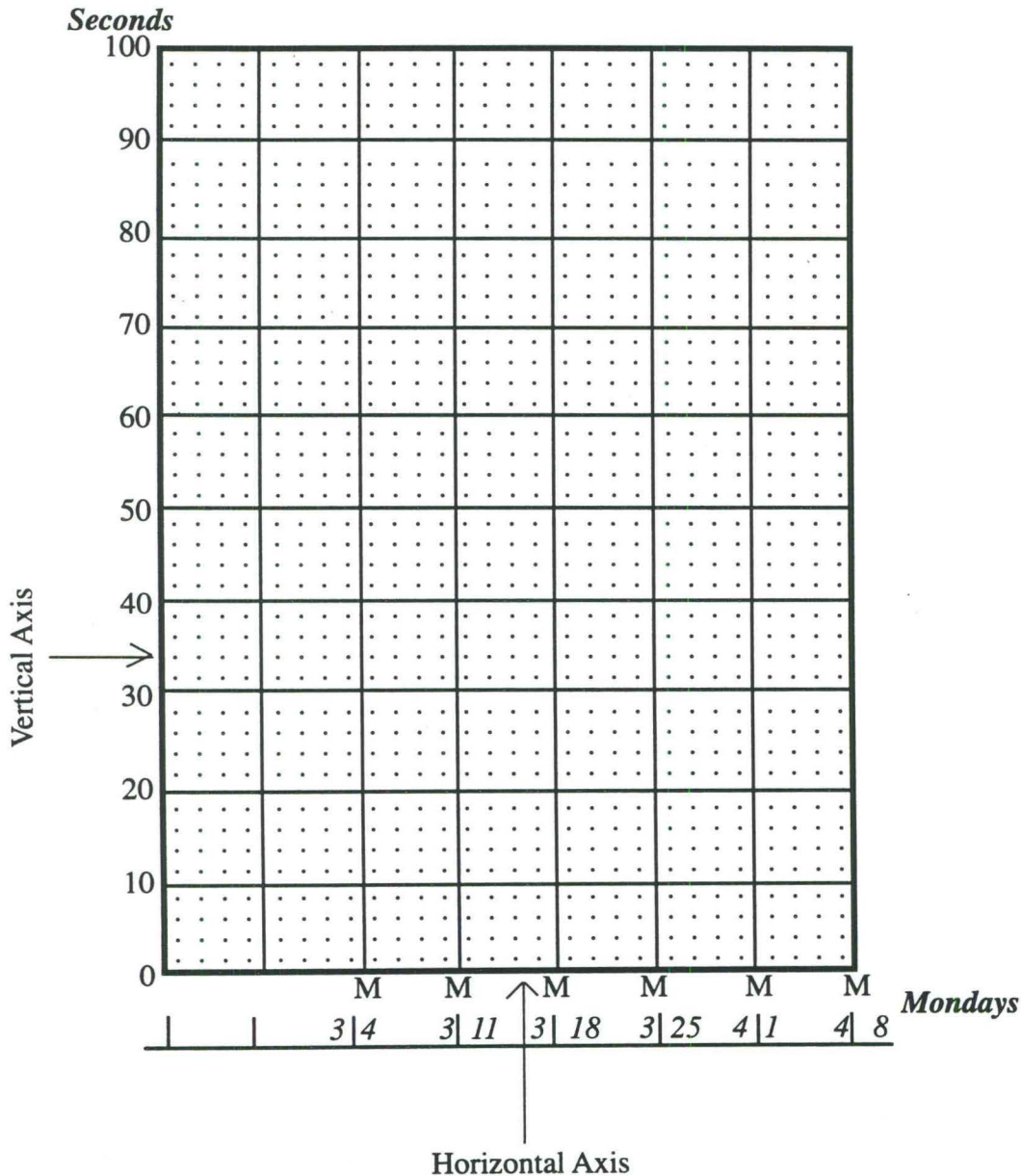


chart: graphic representation of independent variables



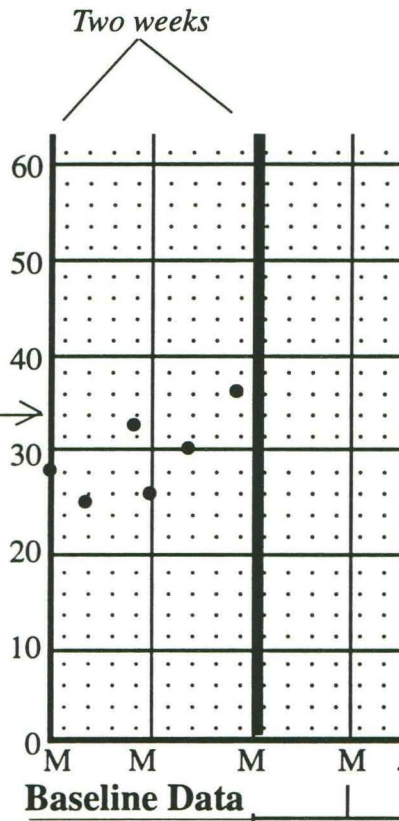
Notes, questions, doodles column!

Charting

Graphing Baseline Data

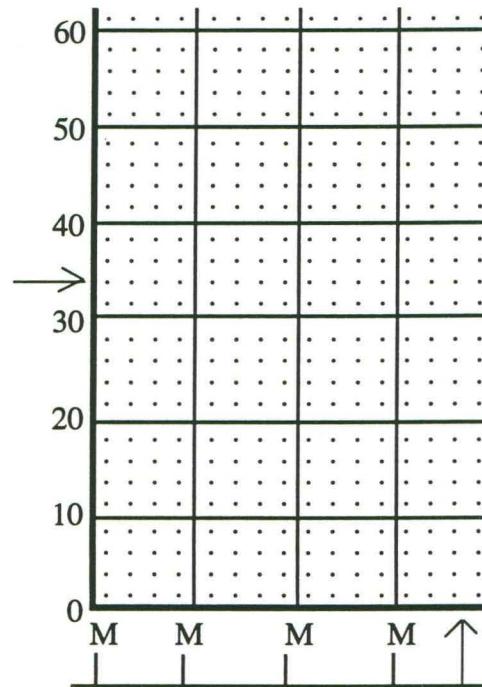
1. Plot all data points (a minimum of 3) in the week(s) they were collected. This may be one week, two weeks, three weeks, etc. In our example with Arnie, we have only plotted two weeks.
2. Draw a vertical line to indicate the end of the baseline period. Label the period "baseline."
3. Find the median. Mark the median with an X on the vertical line drawn to indicate the end of the baseline period.
4. In the activity below, plot the baseline data, draw the separating line and label the information.

Example:



M	28	26
T		
W	25	30
Th		
F	33	36

Activity:



M	15	22	26
T	20	28	30
W	22	28	30
Th	24	32	40
F	32	46	52



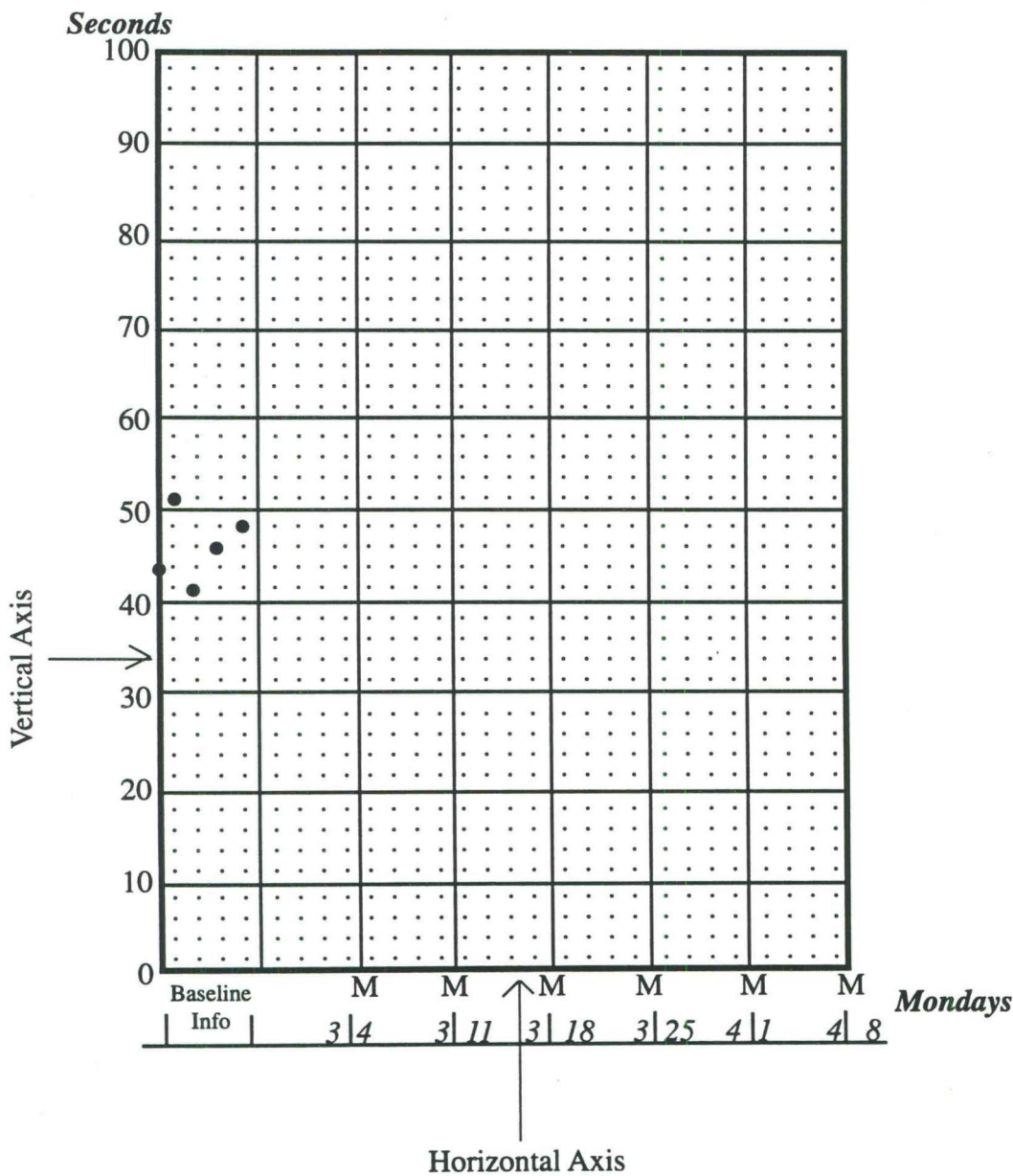
Notes, questions, doodles column!

Charting

5. Plot Baseline data for Arnie (see column to the right of chart.) The baseline information was collected before the intervention was implemented.

Name: Arnie Johnson **Grade Level:** 5th

Goal: In six weeks when given the verbal prompt “Arnie walk to the kitchen,” Arnie will respond within 10 seconds of the prompt for 3 consecutive times.



Baseline Data

M	44
T	52
W	42
Th	46
F	48

chart: graphic representation of independent variables

Charting

6. Draw line to separate baseline data from monitoring data
7. Place an X at the point representing the median baseline score (in this case the median is 46)

Name: Arnie Johnson Grade Level: 5th

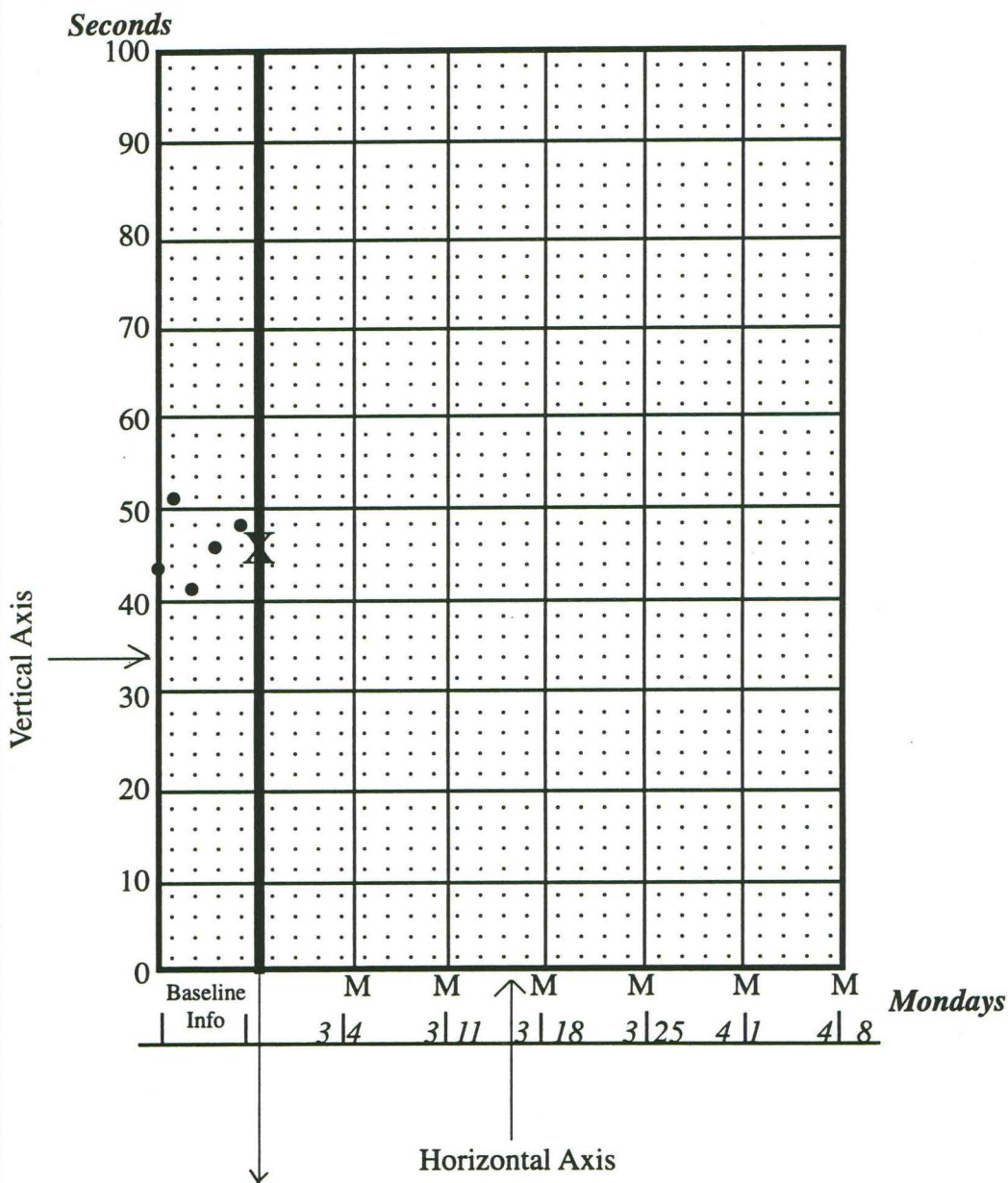


Notes, questions, doodles column!

Goal: In six weeks when given the verbal prompt "Arnie walk to the kitchen," Arnie will respond within 10 seconds of the prompt for 3 consecutive times.

Baseline Data

M	44
T	52
W	42
Th	46
F	48



Baseline with median data plotted



Notes, questions, doodles column!

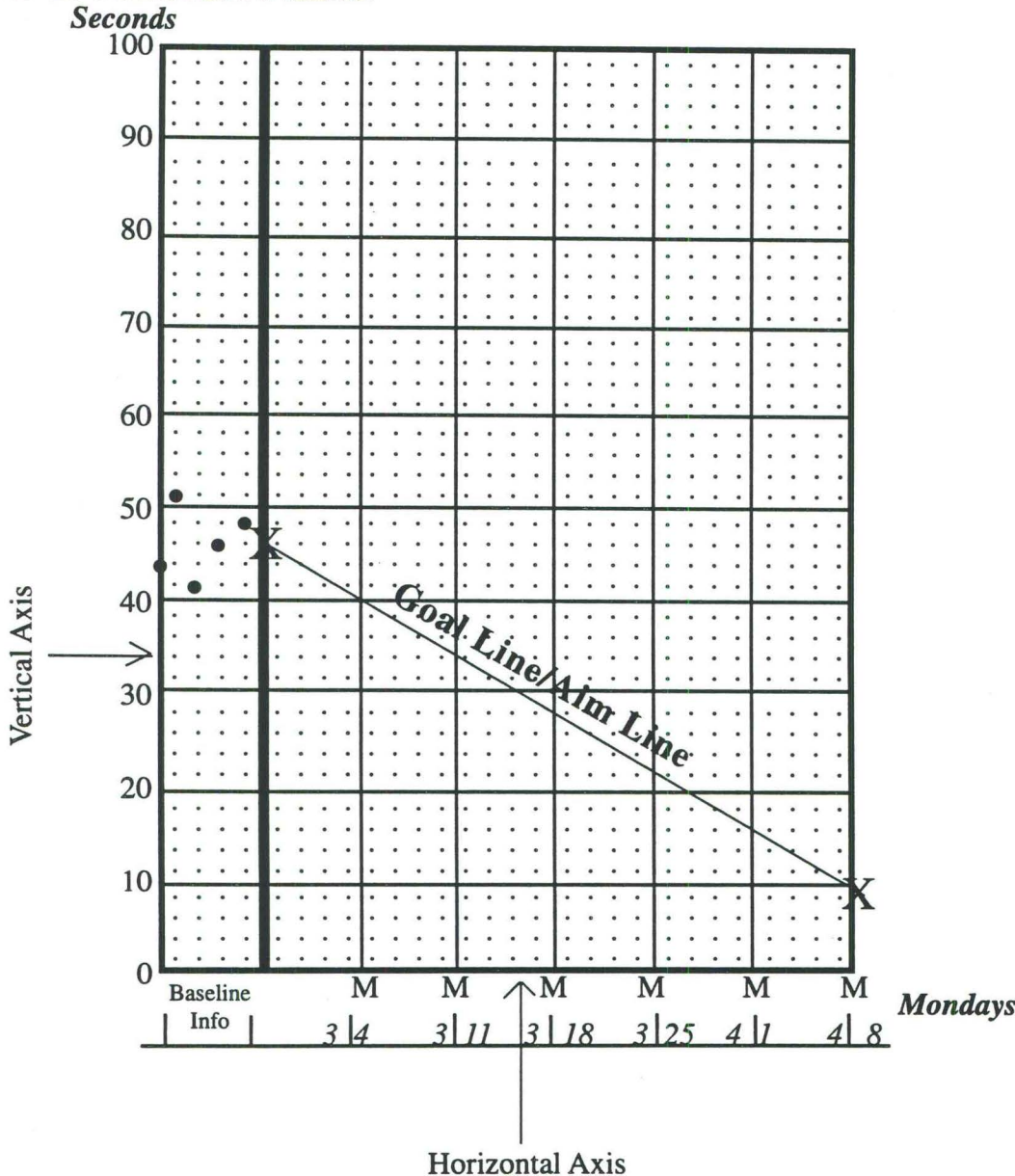
Charting

8. Plot goal data point (in this case 10 seconds), located at the goal time period (6 weeks).
9. Draw the goal line/aim line by connecting the X representing the median baseline marking and the X marking the goal.

Once this is accomplished, you are ready for step 10, which is to plot the monitoring data as you collect it.

Name: Arnie Johnson Grade Level: 5th

Goal: In six weeks when given the verbal prompt “Arnie walk to the kitchen,” Arnie will respond within 10 seconds of the prompt for 10 consecutive times.



Baseline Data

M	44
T	52
W	42
Th	46
F	48

chart: graphic
representation
of independent
variables



*Notes, questions,
doodles column!*

Charting

Types Of Chart Set Ups

Frequency

Cumulative Response

Percentage

Duration/Latency

Let's Review Again The Steps To Set Up A Chart:

1. Fill in personal information
2. Write the goal on the chart
3. Label and number the vertical axis
4. Label horizontal axis (Fill in the Monday dates)
5. Plot baseline data
6. Draw line to separate baseline data from monitoring data
7. Place an X at the point representing the median baseline score
8. Plot goal data point
9. Draw goal line/aim line
10. Plot data points



*Notes, questions,
doodles column!*

Charting

John

In 20 weeks, when sitting at his desk and told by his teacher to get in line, John will get up and be standing in the correct place within 15 seconds on 3 consecutive opportunities.

Sally

In 32 weeks, when given a written passage from a 2nd grade reader, Sally will correctly copy 70 letters, in 2 minutes, in manuscript on lined paper for 3 consecutive sessions.

chart: graphic representation of independent variables



Notes, questions, doodles column!

Charting

Activity:

Decide what type of chart you would use to monitor your chosen behavior.

Practice Session:

On the following chart, prepare the following information.

Goal: At the end of 18 weeks, John will walk up 25 steps consecutively.

Baseline: 2, 5, 4

M	1		5	2	5
T	2	2		7	
W	8	6	4	8	
Th					
F		3			

The following page contains two graphs for charting.



Notes, questions,
doodles column!

Charting

Agenda Check

- ✓ • To **define progress monitoring**, establish a rationale, and explain the relationship among progress monitoring, problem solving and CBM.
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de•ci•sion:
the act or
process of
deciding



Notes, questions,
doodles column!

Decision-Making Plans

Again, the components of progress monitoring:

1. Behavior
2. Measurement strategy
3. Current Level of Performance
4. Goal Statement
5. Chart
- 6. Decision-making plan**

DECISION-MAKING PLAN

A decision-making plan is a procedure for analyzing patterns of data. This includes making decisions about the effectiveness of an intervention.

Note: Changes in interventions should be thought of as deliberately planned events or occurrences that would not happen otherwise.



*Notes, questions,
doodles column!*

Decision-Making Plans

Data-Based Decision Making

- Data must be collected _____.
- Data must be _____ regularly.
(at periodic intervals which logically fit with intervention plans)
- Use decision-making _____.

Decision making plan must include:

1. How often data will be collected.
2. How much data will be collected.
3. Number of data points charted before making the first and later decisions.
4. Decision guidelines to be used.

de•ci•sion: the
act or process
of deciding



Notes, questions,
doodles column!

Decision-Making Plans

Decision #1:

How often will data be collected and charted?

Note: Data must be collected at least once per week.

Data collection decisions should be based on:

- frequency of behavior
- ease of collecting data
- availability of data collector(s)

Decision #2:

How much data will be collected (and if necessary how will it be summarized)?

Academic behaviors:

Will data be collected from one or more probes?

Non academic behaviors:

Will there be one or more observations per session?

Note: If more than one sample of behavior per session, summarize data by finding the median.



Notes, questions,
doodles column!

Decision-Making Plans

Decision #3:

How many data points will be charted before making the first decision and later decisions?

Note: The chart should be examined at least once a month.

Split-middle technique will be used to draw a trendline, a minimum of 7 data points must be collected (12-15 data points are preferred).

Decision #4:

What decision criteria should be used?

1. Comparison of trendline to aimline decision rules (split-middle).
2. Number of uncontrolled, atypical variables affecting performance (illness, wrong equipment, vacation).
3. Past proven performance patterns (long latency before change, erratic performance before consistency).
4. Student task, environment specific issues.

de•ci•sion:
the act or
process of
deciding



*Notes, questions,
doodles column!*

Decision-Making Plans

Comparison of Trendline to Aimline

In this option, all data points are plotted and a trendline must be drawn to compare the slope of the trendline to the slope of the aimline to tell if a student is achieving as predicted.

A trendline is a straight line drawn through a series of data points on a chart. A trendline represents the student's actual rate of progress over time.

How can I do what's expected
of me, if nobody ever
expects anything of me?
—Ashleigh Brilliant



Notes, questions,
doodles column!

Decision-Making Plans

TRENDLINES

Split-Middle Techniques

- Step 1: Draw a vertical in the middle of the graph so that half the data points are on the left side and half are on the right side of this line. If there are an odd number of data points this line will go through the middle data point. If there are an even number of data points, the line will be drawn between the 2 middle data points. Label this line as 1.
- Step 2: Draw a vertical in the first half (to the left of Line 1) so that half the data points fall to the left and half fall to the right of this line. If there are an even number of data points, the line will be drawn between the 2 middle data points. If there are an odd number of data points to the left of 1, the new line will go through the middle of these data points. Label this line as 2.
- Step 3: Draw a vertical line in the second half (to the right of line 1) so that half the data points fall to the left and half fall to the right of this line. Label this line as 3.
- Step 4: Find the median of the first half (all the data points to the left of 1). Draw a horizontal line at this level so that it intersects with line 2.
- Step 5: Find the median of the second half (all the data points to the right of line 1). Draw a horizontal line at this level so that it intersects with line 3.
- Step 6: Draw a line connecting these two intersections. This is a trend line and indicates how rapidly the student is improving over time. The steeper the slope, the faster the student is improving. A steeper slope indicates a more successful intervention.

de•ci•sion:
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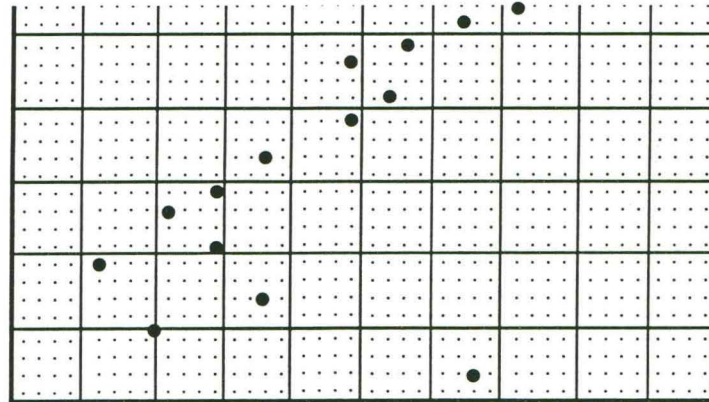
Notes, questions,
doodles column!

Let's Practice the Split-Middle Technique

Decision-Making Plans

Trendlines-Practice

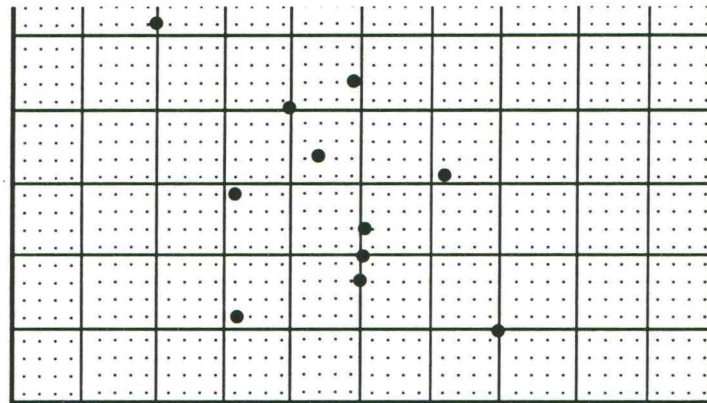
even



Vertical Axis

Horizontal Axis

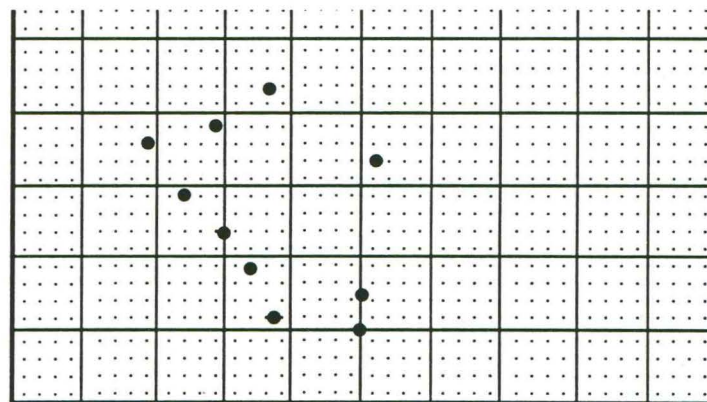
odd



Vertical Axis

Horizontal Axis

even



Vertical Axis

Horizontal Axis



Notes, questions,
doodles column!

Decision-Making Plans

Comparison of Trendline to Aimline Decision

Guidelines for *ascending* Goal Lines

If slope of trendline is flatter than the goal line, *consider an instructional change.*

If slope of trendline is steeper than the goal line, *consider a new goal line.*

If the slope of trendline is the same as goal line, *make no changes.*

Comparison of Trendline to Aimline Decision

Guidelines for *descending* Goal Lines

If slope of trendline is flatter than the goal line, *consider an instructional change.*

If slope of trendline is steeper than the goal line, *consider a new goal line.*

If the slope of the trendline is the same as the goal line, *make no changes.*

de•ci•sion:
the act or
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Notes, questions,
doodles column!

Decision-Making Plans

JOHN

1. How often will data be collected?
Timings made and recorded one day a week on 3 consecutive transitions.

Classroom teacher will chart once per week.
2. What amount of data will be collected and how will it be summarized and charted?
Weekly timings will be charted by the teacher and the median identified. Once a month the PT will place the median scores on the graph.
3. How many data points will be charted before trend analysis?
Data will be inspected once a month when PT visits.
4. What decision criteria will be used?
 1. *If performance falls above the descending goal line consider changing the intervention.*
 2. *If performance falls below the descending goal line consider changing the goal by reducing the length of the goal period.*
 3. *If no consistent pattern of performance is observed, or performance is following the goal line, continue with the intervention and goal as written.*



Notes, questions,
doodles column!

Decision-Making Plans

SALLY

1. How often will data be collected?
Resource room teacher will record the number of letters copied correctly in a 2 minute timing, three times a week.
2. What amount of data will be collected and how will it be summarized and charted?
Weekly data will be recorded by the resource teacher.
3. How many data points will be charted before trend analysis?
Trend line will be calculated after 12-15 data points are collected.
4. What decision criteria will be used?
 - 1). *If performance falls above the ascending goal line, change the goal by increasing the number of letters to be copied.*
 - 2). *If performance falls below the ascending goal line, consider changing the intervention.*
 - 3). *If no consistent pattern of performance is observed, or performance is following the goal line, continue with the intervention and goal as written.*

de•ci•sion:
the act or
process of
deciding

Decision-Making Plans

ACTIVITY



*Notes, questions,
doodles column!*

*1. Develop a decision making plan for your behavior.
Your plan should define:*

- a. the frequency of data collection and charting*
- b. decision guidelines (ascending or descending)*

2. Share with another.



Notes, questions,
doodles column!

Decision-Making Plans

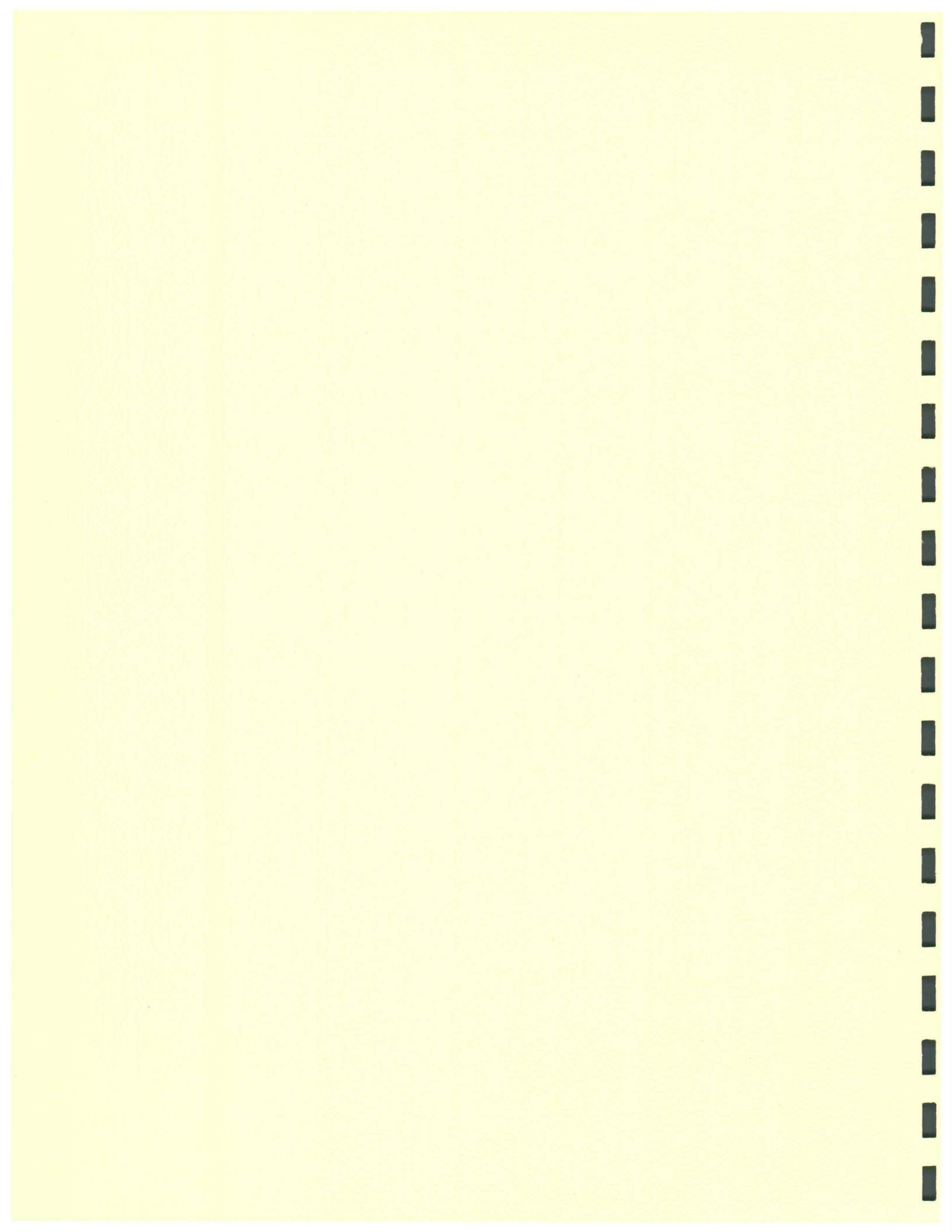
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- ✓ • To **select an appropriate chart and record data**.
- ✓ • To **define a decision-making plan**, its elements and analyze patterns of data.

This is the end of today's session. We hope, however, it is the beginning of a better understanding of Progress Monitoring and the impact it may have on students.

*Don't work too hard -- or it may reveal
that the rest of us aren't working hard enough.*

—Ashleigh Brilliant



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