Differentiated Assessment Strategies
Pre-assessment, Formative, Summative, and Digital

Differentiated assessment is an ongoing process of evaluation where the teacher gathers information and data before, during, and after instruction to better facilitate the learning. This process ensures success for all students in the differentiated class with data provided from a variety of sources assisting in giving an overall view of student achievement. It is essential that when assessing students in the differentiated class, assessment is authentic meaning it offers students a variety of tasks demonstration real-life skills, tells the educator if the student has acquired the skills or concepts, is based on standard criteria to achieve validity, and guides students for roles in adult life (Chapman & King, 2012).

Formative Preassessment Tools
In a quality class, the teacher performs assessment before the learning takes place. This ensures the teacher plans the lessons to best meet the needs of the students. The following are examples of formative preassessment tools (Chapman & King, 2012).

Ponder and Pass
On a chart, the students are to write the facts they know on the given concept, information they want to learn, and questions they want to explore. The paper is then passed around the room.
Signal and Action Response
The students perform an action which indicates their level of understanding of a concept, for example:

- Waving hands = I know it
- Shrug of shoulders = I have a hunch
- Thumbs down = I have no idea

Take a Stand
The teacher places numbers around the room and the students move to a number based on their understanding. With their group, the students discuss what they know about the concept or what they want to know.

Knowledge Base Corners or Squaring Off
The students move to a corner based on their understanding of a concept. The teacher predetermines the level of understanding at each corner. The students discuss the topic with their group members. For example the corners could include; Not a clue, I know a little bit, I know a lot, I’ve got it. Another option is; Little League, Minor League, Major League, World Series.

Content Boxes
The teacher provides the students with graphic organizers based on the new unit of study. The graphic organizers are divided into categories and sub categories connected to the topic. The students complete the information they already know.

Content Surveys
The teacher poses questions based on the unit of study to provide background information on the topic. For example, How does this topic relate to you? What do you want to know about the upcoming study?

Personal Surveys and Inventories
These surveys provide information about the life of the student; interests, emotions, feelings, likes, dislikes, dreams, and goals. These questions may help the teacher direct the impact of the learning. For example, list your favorite? What is your least favorite?

Brainstorming
Brainstorming can be used to give the students a voice in the upcoming unit. For example, list the terms, facts, or concepts you know about our new topic.

ABC Brainstorming.pdf

Color Clusters
The students are given color indicators. They show their color based on their knowledge or understanding. For example,

- Green = on the launch pad
- Yellow = cautious
- Red = moving on up
- Blue = soaring

Gallimaufry Gathering
This activity should be assigned a week or two prior to the unit of study. The students are to become scavengers, discoverers, and investigators. They then fill a box of “things” related to the unit of study. The students could even be asked to fill out a survey on the items they found relating their connection or
importance to the topic. This gathering is often done at home.

**ELO (Evening Learning Opportunities)**
The students are asked to gather information on the upcoming topic. It is to be completed independently at home. This should not be graded and is not considered homework. For example, be a detective and locate a recipe that uses tablespoons, teaspoons, and a cup to measure ingredients. Bring a copy of the recipe to school to share.

**Pretest**
The test reveals the background knowledge base of the students.

**Standardized Testing Data**
Analyze and interpret previous standardized testing data related to the unit of study.

**Boxing**
The students draw a box in the center of a page. They then draw a smaller box inside the first box. In the outside box the students print what they know about the topic. In the inside box the students print what they want to learn or what is their goal in the unit.

**Yes / No Cards**
Students have cards with "yes" written on one side and "no" written on the other. The students are asked questions and hold up the yes or no accordingly.

**Graffiti Facts**
The students create a graffiti type display of what they already know about a topic.

**Four-Corner Pre-Assessment**
The students have a piece of paper divided into four sections. In each section are the following headings such as; something you know, two questions you have, a project idea, with whom you would like to work. These headings of course, can be changed depending on the desired outcomes and the needs of the class.

**K-W-L**
kw1.pdf

**Assessment During the Learning**
To maintain a high quality learning environment, it is necessary the teacher performs assessments during the learning. The ongoing assessment provides essential information which helps to facilitate the learning. The following are differentiated strategies to help support this type of assessment (Chapman & King, 2012).

**Observation**
The teacher continuously searches for evidence of learning by collecting data on the students. This is one of the most effective formative assessment tools available to the teacher.

**Anecdotal Assessment**
The teacher gathers notes and records data. The anecdotal record is a documentation written during
observations.

- **Clipboard Stickies** – attach sticky notes to a clipboard, record information as observed.
- **Card Cruising** – the teacher uses index cards to record information about the students.

**Know it! Show it!**

Some examples on how to Show it:

- Tell a partner your answer to the teacher's question, compile all the answers.
- Say the correct answer together.
- Come to consensus as a group and create your platform.
- Tab the answer with a sticky note flag.
- Place a game piece on the answer.
- Demonstrate with a manipulative.
- Role-play to create a simulation.
- Demonstrate and tell the process used.
- Tell your step-by-step procedure.
- Mark in your class notes using a unique symbol or font.
- Point to the answer or example on/in a; graph, passage, text, SMART board, book, picture, sentence, computer, transparency, diagram, journal, bulletin board, document reader, chart.

**Response Cards**

Cards are given to the students. On one side of the card is an answer such as, "I know" or "I understand", while the reverse of the card has the opposite answer such as, "I do not know" or "lost". When the teacher asks a question, the student shows the side according to his or her understanding.

**High Five**
The students use a five point ranking to indicate their understanding

5 = I understand it and can explain it.
4 = I can use it but cannot explain it.
3 = I am growing but need help.
2 = I am beginning to understand.
1 = I am lost.

**A Bump in the Road**

A student writes a problem or question on the top of a piece of paper. The student passes the paper to three to five classmates to get their suggestions or answers to the question. Each person must initial their response to overcome the bump in the road.

**Color-Coding**

Colors can be used to identify steps, procedures, or high-light important items. For example,

1 = black
2 = blue
3 = green
4 = red
5 = purple

**Sketches From the Mind**

Students make simple sketches to represent key words or as markers to identify facts or concepts
Analyzing Student Notes
Looking at student notes gives the teacher insight into the thought process of the students.

Checkpoint Tests
The teacher uses periodic checkpoint tests after reading or demonstrating a skill. This gives the teacher a quick assessment of the ability level of the students.

Daily Grades
The teacher selects grades from daily assignments, projects, problem-solving opportunities, homework, quizzes, etc. Frequent grades provide a more accurate picture of the student's performance.

Thumb It
The students indicate with their thumb their knowledge on the concepts.
Upside = know a lot
Onside = know some
Downside = know very little

Face the Fact
Students indicate their responses to teacher questions with faces; happy face, straight face, or sad face. The faces can be drawn on paper and students hold up the appropriate face.

Reaching for the Top
The students extend on arm straight up in the air. The students move the opposite hand up their straight arm as a gauge to their understanding. The higher the second arm, the more the student understands the concept.

Speedometer Reading
The students lay one arm on top of the other with hands touching elbows. The students move the arm on top to show a "speed". The higher up the arm, the more the understanding.

Formative Assessment After the Learning
Of course it is essential the teacher assesses the students after the learning to ensure growth has taken place. The following examples are intended to provide immediate feedback of progress (Chapman & King, 2012).

Effective Questioning Techniques
- **Open-Ended Questions**: These questions requires the students to think and choose their answer. Sample questions could be; explain how, describe, tell more about, what is your opinion of, etc.
- **Reflection Questions**: These questions will require students to analyse and reflect on their work. Sample questions could be; what discoveries have you made, what is the most important thing you learned, what do you need to learn next, etc.

Post-Sharing Celebrations
- **Wraparound**: Each student writes a piece of important information on a piece of paper, students are then put into groups. They take turns sharing the information they wrote down.
- **Carousel Gala**: The teacher hangs chart paper with headings around the room. The students are divided into groups and assigned a paper to begin. The students write what they know about the topic on the paper. The teacher will then have the kids rotate to the next paper and add any
information the previous groups had left off.

- **Rhythmic Fanfare**: The students are divided into groups, they are required to make a song, poem, jingle, rap, or chant about specific information from the unit of study. They present these to the rest of the class.

**Likert Scales to Assess Learning, Attitude, and Progress**

A Likert scale is a line of graduated numbers. An individual’s level of performance is identified according to the set criteria.

- 5 - Strongly agree
- 4 - Agree
- 3 - Indifferent
- 2 - Disagree
- 1 - Strongly disagree

**Rubrics**

A tool which provides the students with important information on the assessment of an assignment.

**Sample rubric**

Kathy Schrock’s Assessment and Rubric Information

- Weighted Rubric: A weighted rubric contains a graduated scoring scale.

Retrieved from [WeightedRubrics.pdf](http://www.fctl.ucf.edu/TeachingAndLearningResources/CourseDesign/Assessment/content/WeightedRubrics.pdf)

**Checklists**

Checklists breakdown the criteria for evaluation. The teacher bases the checklist on the focus of assessment.

Retrieved from [Checklist.pdf](http://www.swlauriersb.qc.ca/english/edservices/pedresources/secure/elachecklists/Writing%20descriptors-Cycle%202.pdf)

**Design Delights**

The students present their information on a design or shape to fit the unit of study.

**Assessing With Journals**

The student reflects on their work through journal entries.

**Jazzy Journal Assessment**

Students may use one of the following examples as their journal entry:

- design a sequence
- sketch or draw a picture
- create a caricature
- use a graphic organizer
- make a graffiti list using various fonts and colors
- create a song, rap, jingle, rhyme, chant, or cheer
- make metaphors or similes.

**Graphic Organizers**
Graphic organizers are visual representations of the content.

**Prompts for Assessment**
The following questions may assist the students in assessing their learning:

- I learned...
- I still do not understand...
- I will remember...
- I was pleased that...
- An interesting part was...
- Someone can help me with...
- I wonder if...
- This reminds me of...
- I was surprised when...
- I can explain...

**Assessing With a Blank Page**
This is a blank page added at the end of a test. The students can jot down any information they think is important and that they did not get the chance to share on the test. No marks are taken away but extra marks may be awarded. This gives the teacher the opportunity to discover the learning of the student.

**Performance Assessment**
The content is shared through a wide variety of methods such as speeches, lists, stories, brochures, etc.

**Teacher-Made Tests**

- true-false
- multiple choice
- fill in the blank
- open-ended questions
- performance tests
- skills tests
- problem based

**Portfolios**
Portfolios are a collection of student work. Often the teacher chooses some of the items for the portfolio and the student chooses other items.

portfolio.pdf
Retrieved from [http://www.tcdsb.org/academic_it/ntip/assessment%20files/pdf%20format%20v5/4a-

**Wraparounds II**
The students sit in a circle and they take a turn telling:

- Something the student will use from the information or activities learned today.
- Something the student will remember from today.
- A significant AHA! moment from today.
- I have learned
- I hope to learn
Conversation Circles
The students are put into groups of three. The first student begins talking and continues until the teacher says stop. The second student continues where the first student left off. On the signal, the third student picks up from the second student.

Donut
The students draw a donut shape. On the outside the students print "I am learning" and on the inside they print "I know. They fill the donut in accordingly and share their answers with the class or a group.

Summative Assessment

Assessment Cubing
Cubing adds choice and novelty to the students thinking.
cubing_template.doc
Retrieved from http://daretodifferentiate.wikispaces.com/Cubing+and+Think+Dots

Choice Boards
Choice boards present a variety of ways for the students to demonstrate their knowledge.
Choice Boards.pdf
Retrieved from

Assessment Agendas
These are specific assignments used to meet the needs of the students. They can also be referred to as menus.

Stations, Centers, and Learning Zones
- **Exploratory Stations:** The students are given a variety of material to discover, create, process, or invent in a method that is the most beneficial to them.
- **Structured Stations:** These stations are created with a specific goal in mind.

References


Examples of Formative Assessment

When incorporated into classroom practice, the formative assessment process provides information needed to adjust teaching and learning while they are still happening. The process serves as practice for the student and a check for understanding during the learning process. The formative assessment process guides teachers in making decisions about future instruction. Here are a few examples that may be used in the classroom during the formative assessment process to collect evidence of student learning.

Observations
Questioning
Discussion
Exit/Admit Slips
Learning/Response Logs
Graphic Organizers
Peer/Self Assessments
Practice Presentations
Visual Representations
Kinesthetic Assessments
Individual Whiteboards
Laundry Day
Four Corners
Constructive Quizzes
Think Pair Share
Appointment Clock
As I See It
Observations

The more we know about students, the more we can help them. Observations, sometimes called kid watching, can help teachers determine what students do and do not know. There are several instruments and techniques that teachers can use to record useful data about student learning. Here are a few:

Anecdotal Notes: These are short notes written during a lesson as students work in groups or individually, or after the lesson is complete. The teacher should reflect on a specific aspect of the learning (sorts geometric shapes correctly) and make notes on the student's progress toward mastery of that learning target. The teacher can create a form to organize these notes so that they can easily be used for adjusting instruction based on student needs.

Anecdotal Notebook: The teacher may wish to keep a notebook of the individual observation forms or a notebook divided into sections for the individual students. With this method, all of the observations on an individual student are together and can furnish a picture of student learning over time.

Anecdotal Note Cards: The teacher can create a file folder with 5" x 7" note cards for each student. See Observation Folder. This folder is handy for middle and high school teachers because it provides a convenient way to record observations on students in a variety of classes.

Labels or Sticky Notes: Teachers can carry a clipboard with a sheet of labels or a pad of sticky notes and make observations as they circulate throughout the classroom. After the class, the labels or sticky notes can be placed in the observation notebook in the appropriate student's section.

Whatever the method used to record observations on students' learning, the important thing is to use the data collected to adjust instruction to meet student needs.

Links on Observation:

Observing Students
http://www2.scholastic.com/browse/article.jsp?id=3749065

Methods for Documenting Student Progress
http://newteachersupport.suite101.com/article.cfm/methods_for_documenting_student_progress

Anecdotal Records
http://www.saskschools.ca/curl_content/saskatoonit/1/Anecdotal.html

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Questioning

Asking better questions affords students an opportunity for deeper thinking and provides teachers with significant insight into the degree and depth of student understanding. Questions of this nature engage students in classroom dialogue that expands student learning. Questions should go beyond the typical factual questions requiring recall of facts or numbers. Paul Black, a noted authority on formative assessment, suggests that "more effort has to be spent in framing questions that are worth asking; that is, questions which explore issues that are critical to the development of students' understanding." (Black et al., 2003)

Links for Questioning:

Text-Dependent Questions
http://secondaryreading.pdes-hrd.wikispaces.net/Ask+text-dependent+questions

Tips for Teachers - Asking Good Questions
http://www.edb.utexas.edu/mnliu/pbl/TIPS/question.html#hots

Questioning Techniques: Research-Based Strategies for Teachers
http://onramp.nsdl.org/esserv/onramp:1244/oct08_pl_tas.html

Edutopia: The Right Way to Ask Questions in the Classroom
http://www.edutopia.org/asking-students-good-questions

Inviting Student Engagement with Questioning

Using "Think Time" and "Wait Time" Skillfully in the Classroom

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Decision Making Chart

Reasons Against:

Question:

My Decision:

Reasons For:
Exit/Admit Slips

Exit Slips are written responses to questions the teacher poses at the end of a lesson or a class to assess student understanding of key concepts. They should take no more than 5 minutes to complete and are taken up as students leave the classroom. The teacher can quickly determine which students have it, which ones need a little help, and which ones are going to require much more instruction on the concept. By assessing the responses on the Exit Slips the teacher can better adjust the instruction in order to accommodate students' needs for the next class.

Admit slips are exactly like Exit Slips, but they are done prior to or at the beginning of the class. Students may be asked to reflect on their understanding of their previous night's homework, or they may reflect on the previous day's lesson if the question required a longer response time. Exit and Admit Slips can be used in all classes to integrate written communication into the content area.

3-2-1 Exit Slip

Links on Exit/Admit Slips:

- Readingrocks: Exit Slips
  http://www.readingrocks.org/strategies/exit_slips

- AdLit.org: Exit Slips
  http://www.adlit.org/strategies/19805

- Writing Across the Curriculum: Entry/Exit Slips
  http://writing2.richmond.edu/wac/entexexit.html

- Exit Slips: Effective Bell-Ringer Activities
  http://www.teachhub.com/news/article/cat/14/item/377

- Admit Slips and Exit Slips
  http://literacy.kent.edu/eureka/strategies/admit_slips09.pdf

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Learning/Response Logs

Learning Logs are used for students' reflections on the material they are learning. This type of journal is in common use among scientists and engineers. In the log, students record the process they go through in learning something new, and any questions they may need to have clarified. This allows students to make connections to what they have learned, set goals, and reflect upon their learning process. The act of writing about thinking helps students become deeper thinkers and better writers. Teachers and students can use Learning Logs during the formative assessment process, as students record what they are learning and the questions they still have, and teachers monitor student progress toward mastery of the learning targets in their log entries and adjust instruction to meet student needs. By reading student logs and delivering descriptive feedback on what the student is doing well and suggestions for improvement, the teacher can make the Learning Log a powerful tool for learning.

Response Logs are a good way to examine student thinking. They are most often connected with response to literature, but they may be used in any content area. They offer students a place to respond personally, to ask questions, to predict, to reflect, to collect vocabulary and to compose their thoughts about text. Teachers may use Response Logs as formative assessment during the learning process.

Math Journals

Websites on Learning Logs and Response Logs:

Instructional Strategies Online: What Are Learning Logs?
http://olc.spsd.sk.ca/DE/PD/instrstrats/logs/

Writing to Learn: Learning Logs
http://www.wku.edu/3kinds/mflmpg.html

Field Trip Planner: Active Learning Log
http://www.oansi.edu/teachers/fieldtrips/eval.cfm

Learning (B)logs: Time to Give Students a Voice

Learning Logs Online: Examples and Photos of Learning Logs
http://www.learninglogs.co.uk/

Response Logs for Content Classrooms
http://www.wku.edu/3kinds/riprimain.html

Reading Response Logs - PDF
http://faculty.owc.edu/CHSCForumForSuccess/best-practices-reading/1ReadingResponseLogs.pdf

Rubric for Response Logs
http://www.geocities.com/EnchantedForest/Mountain/9112/journalrubric.html

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Graphic Organizers

Graphic organizers are visual models that can assist students in organizing information and communicating clearly and effectively. Students can use graphic organizers to structure their writing, brainstorm ideas, assist in decision making, clarify story structure, help with problem solving, and plan research. These are a few of the more common graphic organizers and there are links to sites for more at the bottom of the page.

Venn Diagram
KWL Chart
KWLS Chart
KWHL Chart
KNWS Chart
Brainstorming Web
AlphaBoxes
Mind Map
T Chart
Double Entry Journal
Sense-O-Gram
Chain of Events
Problem - Solution Chart
Somebody-Wanted-But-So
Summary Star
Frayer Model
Knowledge Rating Scale
Concept Map
Word Detective
Decision Making Chart
Show My Thinking Chart
Event Analysis Chart for Social Studies
Map the Character

Make a Math Connection

Graphic Organizers on the Web:

Venn Diagram
http://www.sdcoe.k12.ca.us/score/actbank/venn.htm

Venn Diagram on a computer
http://www.readwritethink.org/materials/venn/

Graphic Organizers
http://www.educationplace.biz/graphicorganizer/

Printable Graphic Organizers
http://www.teachervision.fen.com/graphic-organizers/printable/6293.html

Graphic.Org
http://www.graphic.org/goindex.html

Graphic Organizers
http://www.ncrel.org/sdrs/areas/issues/students/learning/ir1grorg.htm

Teach 21 Home
Activating Prior Knowledge
Vocabulary Development
Comprehension Strategies
Summarization Techniques
Writing Across the Curriculum
Getting to Know Students
Technology Tools

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State Superintendent of Schools

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Two Stars and a Wish

A Strategy for Peer Assessment

This peer assessment is particularly useful for the writing process. Students are paired and asked to read each other's written work. The reader must identify two things the author did well (stars) and one specific suggestion for improvement (the wish).

Before implementing this strategy, students must be trained on the process of providing appropriate feedback to their peers. The teacher can use this strategy as a formative assessment by circulating around the classroom and listening to the conversations between partners.
Windshield Check

This formative assessment can be used to have students check their own understanding of a concept just taught in a lesson. Using the analogy of a windshield, students will decide which of the following best describes what they know about the concept:

CLEAR = I get it! I thoroughly understand the concept.

BUGGY = I understand it for the most part, but a few things are still unclear.

MUDDY = I don’t get it at all.

This assessment can quickly let the teacher know if there are major or minor misunderstandings, and help him/her design instruction to clarify any misconceptions before moving on.
Thumbs Up – Side - Down

This formative assessment technique quickly allows the teacher to gauge the understanding of the learners in his/her classroom. After presenting a lesson, or part of a lesson, the teacher asks students to use their hand to signal their depth of understanding. A thumb up means “I have a good understanding.” A thumb to the side means “I still have some questions.” A thumb down means “I don’t get it.” The teacher can readjust the next lesson or section of the lesson as needed based on student response. To hold students more accountable for their “truthfulness” the teacher can call on someone who signaled a thumb up to explain the concept to the class, or partner students who understand with those who don’t and let them teach each other for a few minutes.

WARNING – This is only for a quick check and not very reliable. Students will not want to be seen with their thumbs down. A “Wiggling” thumb means, “I don’t get it.”

Eyes Open – Eyes Shut

This formative assessment technique typically allows for more of an honest answer. After presenting a lesson, or part of a lesson, the teacher asks students to close their eyes. The teacher will ask a question and ask the students to raise their hands in a response (such as - I understand, I do not fully understand, or I have answered questions without reading the story before... etc.) Make sure no one peeps. If the majority of the class doesn’t understand, ask all the students to open their eyes. Realizing they are not the only one who doesn’t “get it” is significant for them.

For these to methods to work, the classroom environment must allow risk taking and be a place where students feel safe admitting they need help.
Colored Cups

This formative assessment technique quickly allows the teacher to gauge the understanding of the learners in his/her classroom. The teacher gives each student 3 cups; one red, one yellow and one green. As students work independently, they display the appropriate color of cup to indicate their understanding of the concept. A green cup means “I am working OK and encountering no problems.” A yellow cup means “I still have some questions because I can’t do some of the work.” A red cup means “I am lost and I don’t know how to proceed.” The teacher can work individually with students displaying the red cups, or bring them together for small group instruction. The same process can be used for the yellow cups, or a green cup could be paired with a yellow cup for peer tutoring. This same process can be used with colored cards if cups are not available.
Fist to Five

This formative assessment technique quickly allows the teacher to gauge the understanding of the learners in his/her classroom. After presenting a lesson, or part of a lesson, the teacher asks students to use their hand to signal their depth of understanding. A fist means, "I don't understand any of it," while all five fingers out means, "I understand it completely." Students can signal by raising 1, 2, 3, or 4 fingers also. The teacher can readjust the next lesson or section of the lesson as needed based on student response. To hold students more accountable for their "truthfulness" the teacher can call on someone who signaled a 5 to explain the concept to the class, or partner students who understand (5) with those who don't (0) and let them teach each other for a few minutes.
Practice Presentations

Just as in sports, practice before a classroom presentation is vital. Through practice and peer review, students can improve their presentation skills and the content of the presentation itself. The practice presentation should take place a few days before the final presentation due date. Students run through their presentations with the audience, their peers, evaluating the performance based on the previously established rubric criteria. An easy way for students to furnish feedback is through a T Chart. Students use the left column of the chart to comment on the positive aspects of the presentation, and they use the right columns to suggest changes that the presenter might make to improve the quality of the presentation. By listening to both the practice and final presentations the teacher can easily gauge the level of student understanding of critical concepts and adjust instruction to address any misconceptions.

Links on Presentations:

Classroom Presentation Tips
http://www.seshow.com/list_6137068_classroom-presentation-tips.html

Making Class Presentations
http://sccsery2.mcmaster.ca/inquiry/presentationsmaking.htm

9 Presentation Tips for Students
http://presentationsoft.about.com/od/classrooms/tp/student_tips.htm

Fearless Public Speaking: Oral Presentation Activities

Teaching Good Communication Skills in the Classroom
http://www.essortment.com/all/communicationte_rqmd.htm

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Visual Representations

There are several forms of visual representation, or nonlinguistic representation, but one that offers assessment data for the teacher is the use of drawing. Graphic organizers can be used as visual representations of concepts in the content areas. Many of the graphic organizers contain a section where the student is expected to illustrate his/her idea of the concept. The Mind Map requires that students use drawings, photos or pictures from a magazine to represent a specific concept. The Verbal and Visual Word Association (VVWA) asks students to illustrate a vocabulary term. Both of these offer the teacher a quick way of assessing student depth of understanding regarding a specific concept and the ability to adjust instruction immediately to address student needs.

Links for Visual Representation:

Painting Poetry: Using Visual Representation as a Response to Literature
http://198.104.156.44/lessons.lesson_view.asp?id=780

The Role of Visual Representation in the Assessment of Learning

Research on Graphic Organizers

Classroom Instruction That Works: Nonlinguistic Representations
http://www.ascd.org/publications/books/101010/chapters/Nonlingustic-Representations.aspx

Putting the Pieces Together: Using Non-Language Representations
http://gets.gc.k12.va.us/etsl/2008/5nonlinguistic.htm

Five Great Tools for Marzano’s Strategies: Nonlinguistic Representation
http://blog.esu10.org/dstall/2010/02/01/5-great-tools-for-marzanos-strategies-nonlinguistic-representation/

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Kinesthetic Assessments

These examples of the formative assessment process require students to incorporate movement to demonstrate their understanding of a topic or concept. Although usually connected with the Arts (dance, playing a musical piece) or physical education (dribbling a basketball, serving a volleyball), kinesthetic assessments can be used in the core content classrooms to furnish teachers with insight into their students' understandings and misconceptions concerning a concept. Kinesthetic assessments are a good way to add movement in the classroom and allow teachers to determine the depth of student learning to inform their instructional decisions.

Math Graphing Example

ELA Grammar Example

Instrumental Music Example

Debate Circles

Inside-Outside Circle

Websites on Kinesthetic Assessments:

Ideas for Learning through Movement in the Classroom
http://www.ehow.com/list_7793128_ideas-learning-through-movement-classroom.html
Kinesthetic Assessments
ELA Grammar Example

This formative assessment, called "Make a Sentence," can be used to determine if students can construct a sentence, identify parts of speech and add correct punctuation. The teacher must first construct some sentences and write each separate word and punctuation mark on an index card. The complexity of the sentences will be determined by the age and prior knowledge of the students. The teacher might begin with simple sentences and later move to sentences with more complexity, such as those having multiple phrases or clauses.

A group of students is given a stack of index cards containing the words and punctuation needed to complete a sentence or question. They must work collaboratively to form the sentence and organize themselves in a line so that the sentence can be read from left to right. Each student will read the word on the card or make sound effects for the punctuation (a pop for a period, a swish pop for a question mark, etc.). The teacher may extend the activity by having the subject of the sentence stand on tiptoe and the verb can jump up and down (action verb) or sit on the floor (being verb). Prepositional phrases can link their arms; adjectives and adverbs can put their hands on the shoulders of the person holding the word they modify. The teacher can adjust the movements or length and complexity of the sentences.

To use this activity as a formative assessment the teacher can listen to student conversations as they collaborate to form their sentence. He/she can ask students to explain why they lined up in a certain manner or why they exhibited a certain movement, right or wrong.
Kinesthetic Assessments

Math Graphing Example

To determine whether or not students have an understanding of how to plot points on a coordinate plane, the teacher can use this formative assessment. A coordinate plane is created on the classroom floor or other large area and the x and y axis are labeled. The plane can contain four quadrants or just one, depending on the level of the students. Students are seated around the outside of the grid on the floor. A student draws a card containing a pair of coordinates and must decide where on the grid to stand. Once the student has determined where to stand, he/she must explain how he/she arrived at that position. If the student has moved to an incorrect position, he/she may call on a partner to help figure out where to relocate.

The teacher can gain some important information about the students as they participate in this activity. As students locate themselves on the grid, the teacher can assess their ability to plot the points. More importantly, as students explain how they located their spot, the teacher gets an insight into the depth of understanding the student possesses.
Debate Circles

Kinesthetic Assessment

This formative assessment can be used to activate student thinking and uncover their understandings and misconceptions. Students form a circle in the classroom or another large area. The teacher makes a statement, like, “Which is more important: Individual Rights or the Common Good?” Students who think Individual Rights are more important move to the center of the circle. Students left on the outside, those who think the Common Good is more important, form another circle and both groups formulate their position on the topic. The teacher listens to the discussion and assesses student understanding. After the students have had time to formulate their arguments, they form two lines facing one another and students take turns expressing their ideas on the statement.
Inside-Outside Circle

Inside-Outside Circle (Kagan, 1994) is a summarization technique that gets students up and moving. It provides a way to get students who normally would not talk to interact with others. After students read a section of text, the teacher divides the group. Half of the students stand up and form a circle with their backs to the inside of the circle. They are partner A. The other half of the students form a circle facing a partner from the first circle. These students are partner B. Partner A will speak first, quickly summarizing what they read. This takes about a minute. Then partner B speaks for the same length of time, adding to the summary. If the teacher stands in the center of the circle, he/she can easily monitor student responses.

Now it is time to move. Have the students who are partner A raise their right hands and then move two people to the right to meet with a new partner. Repeat the summary with partner B speaking first. For the third move, have all students who are partner B raise their right hand and move two people to the right. After they are with a new partner, they continue with the summary with partner A speaking first. Depending on the size of the class, teachers may have students move more or fewer times to complete the activity. Inside-Outside Circle holds all students accountable for having something to say. The teacher can use this activity as a formative assessment by standing in the center of the circle and listening to the conversations that take place.

**sites on Inside-Outside Circle:**

Inside-Outside Circle Directions - PDF
http://home.on.ca/lmstips/files/TIPSForTeachers/13InsideOutsideCircle.pdf

Norm Green Shared Pair Circles - PDF

Strategies to Probe Deeply into the Text

Inside-Outside Circle by Spencer Kagan

Inside-Outside Circle
http://www.geocities.com/hruinspecialt/Coop_Learn/Inside_Outside_Circle.html

- Activating Prior Knowledge
- Vocabulary Development
- Comprehension Strategies
- Summarization Techniques
- Writing Across the Curriculum
- Getting to Know Students
- Technology Tools

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Laundry Day

Laundry Day is a strategy in the formative assessment process mentioned by Cassandra Erkens in her article entitled "Scenarios on the Use of Formative Classroom Assessment" (2007). This is a strategy where students evaluate their own learning in preparation for a chapter or unit test. They group themselves in the classroom around four different kinds of laundry detergent: Tide, Gain, Bold and Cheer. In their chosen corner they will work on activities to enrich or improve their understanding of the required content. The teacher can readily assess the students’ level of understanding of the basic concepts covered in the unit or chapter. The teacher provides support as needed, as well as help being provided by students who are sure they have mastered the content. None of the work generated during this time counts as a grade, but students are scaffolded to increase their chances of success on the upcoming test.

For information on Laundry Day:

Scenarios on the Use of Formative Classroom Assessment (See page 4)
http://fai.tie.wikispaces.net/file/view/1a_WY+State+Conf+HOs.pdf
Four Corners

Four Corners is a quick strategy that can be used effectively in the formative assessment process for gauging student understanding. It can engage students in conversations about controversial topics. The four corners of the classroom can be labeled as Strongly Agree, Agree, Disagree, and Strongly Disagree. Present students with a statement, like "All students should wear uniforms to school," and have them move to the corner that expresses their opinion. Students could then discuss why they feel the way they do. The teacher can listen to student discussions and determine who has information to support their opinion and who does not. Another way to use Four Corners is associated with multiple choice quizzes. Label the corners of the classroom as A, B, C and D. Students respond to a teacher-created question by choosing the answer they feel is correct. They must be able to give a reason for their answer.

Links to Four Corners:

Four Corners Teaching Strategy

Four Corners Activities
http://www.suite101.com/content/four-corners-activities-a170020

Four Corners
http://www.angelfire.com/ok/freshenglish/fourcorners.html

Four Corners Strategy
http://vels.vcaivc.edu.au/support/tja/collab_strategies.html#corners
Constructive Quizzes

Periodic quizzes can be used during the formative assessment process to monitor student learning and adjust instruction during a lesson or unit. Constructive quizzes will not only furnish teachers with feedback on their students, but they serve to help students evaluate their own learning. The process is outlined in the document below. By using quizzes to furnish students with immediate feedback, the teacher can quickly determine the status of each student in relation to the learning targets, and students can learn more during the discussions that immediately follow the quizzes, instead of having to wait until the next day to see the results of the assessment in the form of a meaningless grade on the top of a paper. The teacher should use the results of these quizzes to adjust instruction immediately based on student outcomes.

Constructive Quizzes Directions

Links to Quizzes as Formative Assessments:

Different Types of Formative Assessment
http://www.ehow.com/list_6385067_different-formative-assessment-lesson-plans.html

Using Pop-Quizzes as an Assessment
Think-Pair-Share

Think-Pair-Share (Lyman, 1981) is a summarization strategy that can be used in any content area before, during, and after a lesson. The activity involves three basic steps. During the “think” stage, the teacher tells students to ponder a question or problem. This allows for wait time and helps students control the urge to impulsively shout out the first answer that comes to mind. Next, individuals are paired up and discuss their answer or solution to the problem. During this step, students may wish to revise or alter their original ideas. Finally, students are called upon to share with the rest of the class. There is also a Think-Pair-Square-Share. In this strategy, partners discuss answers with another pair before sharing with the class. This activity ensures that all students are interacting with the information. Teachers can use this activity in the formative assessment process as they walk about the room listening to student conversations.

Think-Pair-Share My Partner’s Thoughts

Websites on Think-Pair-Share:

- Instructional Strategies Online: What is Think-Pair-Share?
  http://oic.spsd.sk.ca/DE/PD/instr/strats/think/

- Reading Quest.org: Think-Pair-Share
  http://www.readingquest.org/strat/tps.html

- The Egyptian Cinderella Lesson Plan: Think-Pair-Share
  http://www.ncela.gwu.edu/practice/itc/lessons/dntinthinkpairshare.html

- Intel® Teach Program: Think-Pair-Share - PDF

  Activating Prior Knowledge
  Vocabulary Development
  Comprehension Strategies
  Summarization Techniques
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**Appointment Clock**

The Appointment Clock is a simple strategy in the formative assessment process that can be embedded within a lesson. The teacher directs students to find three people with whom to schedule appointments at the quarter hour, the half hour, and the 45-minute mark. The teacher begins the lesson and provides information to move students to higher-order thinking. The teacher determines the stopping point and asks students to meet with their quarter hour appointment to discuss their thinking about a couple of questions the teacher has posed. The teacher walks around and listens to the conversations taking place between partners, noting any misconceptions or misunderstandings. The teacher uses this information to adjust instruction by redirecting the next segment of the lesson. Students meet with their half hour appointment and the teacher conducts the same informal observation and adjusts the third section of the lesson. Students continue this process until the lesson is complete. By structuring a lesson in the manner, the teacher is able to determine the current level of understanding for the class and for individual students, and make immediate adjustments to instruction to assist students in their learning.

**Websites on Appointment Clocks:**

Appointment Clock Buddies


Appointment Clock Partners

Assessment after the Learning
(Formative and/or Summative)

- Questioning (Open-ended/Reflective)
- Post-sharing Celebrations
- Likert Scales to Assess Learning, Attitude, Progress
- Rubrics
- Checklists
- Design Delights
- Journals (throughout or at the end)
- Writing Prompts
- Performance Task
- Teacher-Made Tests
- Portfolios

*Differentiatedstrategies.wikispaces.com*
I came across a great blog post the other day – *Formative Assessments Are Easier Than You Think* – that told the firsthand account of a teacher, Steven Anderson, who implemented formative assessment in his classroom. He used a sticky-note version of an exit ticket to elicit evidence of student learning and in his words, “what a difference that made.” Here they are:

**Lino** – A virtual corkboard of sticky-notes so students can provide questions or comments on their learning. These can be used like exit tickets or during the course of a lesson.

**Poll Everywhere** – Teachers can create a feedback poll or ask questions. Students respond in various ways and teachers see the results in real-time. As Steven indicates, with open-ended questions you can capture data and spin up tag clouds to aggregate response. You should note that Poll Everywhere has a limit to the number of users. Mentimeter (which we’ve listed below) does not which makes it a little more functional.

**Socrative** – Engaging exercises and games that engage students using smartphones, laptops and tablets.

**AnswerGarden** – A tool for online brainstorming or polling, educators can use this real time tool to see student feedback on questions.

**Ask3** – This app for the iPad allows students and teachers to collaborate on lessons both in and outside of the classroom. Questions can be posted to specific classrooms set up in the app, and students can add their thoughts, answers, and thinking to the whiteboard.

**AudioNote** – A combination of a voice recorder and notepad that captures both audio and notes for student collaboration.

**BubbleSheet** – An app that allows students to complete assignments and common assessments using an iPhone or iPad. Quizzes up to 10 questions are free.

**Coggle** – A mind mapping tool designed to understand student thinking.

**Conceptboard** – This software facilitates team collaboration in a visual format – similar to mind mapping, but using visual and textual inputs. Compatible on tablets and PCs, Conceptboard can work from multiple devices.

**Five Card Flickr** – Designed to foster visual thinking, this tool uses the tag feature from photos in Flickr.

**ForAllRubrics** – This software is free for all teachers and allows you to import, create and score rubrics on your iPad, tablet or smartphone. You can collect data offline with no internet access, compute scores automatically and print or save the rubrics as a PDF or spreadsheet.
SMART Response VE (for SMARTboards) – A cloud-based software that enables students to respond to planned and spontaneous questions and take quizzes using any of their favorite Internet-enabled devices, from anywhere.

Tagxedo – A tag cloud generator that allows you to examine student consensus and facilitate dialogue.

ThinkBinder – A collaboration tool that allows students to ask questions and discuss topics in a group, share, create and work together on almost any project.

TodaysMeet – This online collaboration tool allows educators to create a “room” in which students can share ideas, answers and thoughts to lectures and lessons. Educators can view student responses in real time for evidence of learning.

VoiceThread – Allows you to create and share conversations on documents, diagrams, videos, pictures or almost anything. This facilitates collaborative student discussion and work.

Vocaroo – A free service that allows users to create audio recordings without the need for software. You can easily embed the recording into slide shows, presentations, or websites. Great for collaborative group work and presentations.

Wordle – Generates tag clouds from any entered text to help aggregate responses and facilitate discussion.

XMind – A mind mapping software for use on computers and laptops. This is a great list of digital tools and we’d love to have your suggestions on what we can add to it. What other tools are you using in your classroom or school? Share your additions in the comments section below and let’s build an even larger list!
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Review of Student Response Systems

Works with iPhones and Tablets

Backchannel Information Assessment Tools Comparison Chart - FreeTech4Teachers.com