Differentiation

It is not a strategy but a total way of thinking about learners, teaching and learning. It is PROACTIVE and intentional.
All students should be given access to the same core content, with the complexity level adjusted, and differentiated amounts of assistance given, to meet different learners’ needs.

i.e. varying rates of instruction and assistance at varying levels of complexity are employed

Carol Tomlinson on differentiation
What are her key comments?

“Differentiated instruction is responsive instruction. It occurs as teachers become increasingly proficient in understanding their students as individuals, increasingly comfortable with the meaning and structure of disciplines they teach, and the increasingly expert at teaching flexibly in order to match instruction to student need with the goal of maximizing the potential of each learner.”

Tomlinson, 2003
## A SUMMARY of DIFFERENTIATION: WHAT IT IS, AND WHAT IT IS NOT

### DIFFERENTIATION IS:
- having high expectations for all students
- providing multiple assignments within each unit, tailored for students with differing levels of achievement
- allowing student to choose, with the teacher's guidance, ways to learn and how to demonstrate what they have learned
- permitting students to demonstrate mastery of material they already know and to progress at their own pace through new material
- structuring class assignments so they require high levels of critical thinking but permit a range of responses
- assigning activities geared to different learning styles, interests and levels of thinking and achievement
- providing students with choices about what and how they learn
- flexible. Teachers move students in and out of groups based upon students' instructional needs.
- **student-centred**

### DIFFERENTIATION IS NOT:
- individualisation. It isn't a different lesson plan for each student each day
- giving all students the same work most of the time
- students spending significant amounts of time teaching material they have mastered to others who have not mastered it
- assigning more work at the same level to high-achieving students
- all the time. Often it is preferable for students to work as a whole class.
- grouping students into co-operative learning groups that do not provide for individual accountability or do not focus on work that is new to all students
- using only the differences in student responses to the same class assignment to provide differentiation
- limited to acceleration. Teachers are encouraged to use a variety of strategies.
- **teacher-centred**
Differentiation

- Is **student-centred** and encourages students to be **active** in the learning process; supports **inquiry** learning.
- Students are **challenged** to reach increasingly high **but achievable goals** and work **both** independently and collaboratively.

The Spanish lesson

Your observations:
An Introduction to Differentiation

Knowing your students: what needs to be considered?

Students vary in readiness, interest and learning profile.

- **Readiness** is a student’s entry point relative to a particular understanding or skill; it is the skill level and background knowledge of the child. Addressing readiness can lead to growth in knowledge, skills and understanding.

- **Interest** refers to a child’s affinity, curiosity or passion for a particular topic or skill. It can include interests relevant to the content area as well as outside interests. Catering for interests can lead to improve motivation, engagement and participation.

- **Learning Profile** has to do with how we learn. It may be shaped by gender, intelligence preferences, culture or learning style. This includes learning style, grouping preferences and environmental preferences. Catering for learning profiles can improve efficiency in students’ learning.

We need to collect information about what:

- Students already know and can do
- They do not know and cannot do
- Related experiences they have had
- They have understood from the lesson
- Learning styles work best for them
- Interests them
- They have understood in a particular lesson.

What do we need to do once we have this information?
Interest and Learning Preference Survey

Group 1
1. I like to read when I have free time.
2. I like to read a report rather than be told what’s in it.
3. I understand something best when I read it.
4. I remember what I read better than I remember what I hear.
5. I would rather read a newspaper than watch the news on TV.

Total number of checks in Group 1

Group 2
1. I take notes when I read to better understand the material.
2. I take lecture notes to help me remember the material.
3. I like to recopy my notes as a way of better understanding the material.
4. I make fewer mistakes when I write than when I speak.
5. I find the best way to keep track of my schedule is to write it down.

Total number of checks in Group 2

Group 3
1. I like to listen to people discuss things.
2. I learn more when I watch the news than when I read about it.
3. I usually remember what I hear.
4. I would rather watch a TV show or movie based on a book than read the book itself.
5. I learn better by listening to a lecture than by taking notes from a book on the same subject.

Total number of checks in Group 3

Group 4
1. I remember things better when I say them out loud.
2. I talk to myself when I try to solve problems.
3. I communicate better on the phone than I do in writing.
4. I learn best when I study with other people.
5. I understand material better when I read it out loud.

Total number of checks in Group 4

Group 5
1. I can “see” words in my mind’s eye when I need to spell them.
2. I picture what I read.
3. I can remember something by “seeing” it in my mind.
4. I remember what the pages look like in the books I have read.
5. I remember people’s faces better than I remember their names.

Total number of checks in Group 5

Group 6
1. I like to make models of things.
2. I would rather do experiments than read about them.
3. I learn better by handling objects.
4. I find it hard to sit still when I study.
5. I pace and move around a lot when I am thinking through a problem.

Total number of checks in Group 6

INSTRUCTIONS:
1. Put a tick beside each statement that describes you in every group.
2. Total the number of ticks for each group. For which group(s) did you have the most “ticks”?
3. What do you think these groups’ descriptions suggest about your learning style preferences? How might this influence your teaching?
4. How would knowing this about your students help you teaching them more effectively?
Think about how you would describe yourself [and/or draw pictures to illustrate each metaphor].

<table>
<thead>
<tr>
<th>Description</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animal</td>
<td>____________________________ because:</td>
</tr>
<tr>
<td>Colour</td>
<td>____________________________ because:</td>
</tr>
<tr>
<td>Season</td>
<td>____________________________ because:</td>
</tr>
<tr>
<td>Fairy tale character</td>
<td>____________________________ because:</td>
</tr>
</tbody>
</table>

My own metaphor:

I am a ____________________________ because:
An Introduction to Differentiation

What Matters to You?

Name:
What are you interested in or concerned about that relates to you and your life or future?
1. 
2. 

What are you interested in or concerned about that relates to Australian and its past, present or future?
1. 
2. 

What are you interested in or concerned about that relates to the world (global issues)?
1. 
2. 

How did it feel to think about these things? What did you notice about your thinking?

Presented by Karen Stapleton, AISNSW
An Introduction to Differentiation

Pre-assessment subject interest/ability card

Subject inventory

Name:
1. How do you feel about (insert subject)?
2. Do you think you are good at (s)?
3. What are your best areas in (s)?
4. What are your weakest areas in (s)?
5. Do you think it is important to be good in (s)? Why?
6. What do you think are characteristics of students who are good in (s)?
7. What do you do when you can’t do something in (s)?
8. How do you use (s) outside the classroom? OR How is (s) relevant to your life outside the classroom?
9. What do you usually do when you get home from school?
10. What should I know about you to teach you effectively in my class?

Pre-assessment learning profile card

How do I like to learn?

1. I study best when it is quiet. Yes/No
2. I am able to ignore noise of others when I am working. Yes/No
3. I like to work at a table or desk. Yes/No
4. I like to work on the floor. Yes/No
5. I work hard for myself. Yes/No
6. I work hard for my parents. Yes/No
7. I will work on an assignment/homework and complete it, no matter what. Yes/No
8. Sometimes I get frustrated with my work and do not do it or complete it. Yes/No
9. When I get an assignment I like to have the exact steps on how to complete it. Yes/No
10. When I get an assignment I like to create my own steps and complete it my own way. Yes/No
11. I like to work by myself. Yes/No
12. I like to work in pairs or in groups. Yes/No
13. I like to learn by moving and doing things. Yes/No
14. I have trouble remembering things I have only heard. Yes/No
15. I prefer to learn by writing things down or from pictures. Yes/No
## Pre-assessment student and learning profile cards

### All about me...  

1. Three things/topics that I am really interested in are:
   a. 
   b. 
   c. 
2. Three things I like doing in my free time are:
   a. 
   b. 
   c. 
3. When I’m in school I would rather work:
   by myself ________ with a partner ________ In a group ____________
4. I learn best when ____________________________________________
5. I can’t learn when ___________________________________________
6. My favourite subject is ______________________ because __________
   ________________________________
   ________________________________
7. Three words that best describe me are: _________________________
   ________________________________
   ________________________________
8. My favourite lesson is when __________________________________
9. Three things I like my teachers to be/do:
   a. 
   b. 
   c. 
10. Other things my teacher should know about me to teach me best are:
Pre-assessment student profile card

Name:

Using the circle design a pie chart to show your interests and things you like to do.

Imagine this puzzle represents you. Label each piece with things you like to do in your leisure time and things you would like to study in class. Divide the puzzle pieces into more if you need to.
An Introduction to Differentiation

Learning style preferences

Learning Preferences

We used the following learning strategies in class this week/this lesson:

- Think/Pair/Share
- Video viewing/generating questions
- 3 minute pause
- Practical Demonstration
- Jigsaw Activity
- Group presentation to class

Which one(s) seemed to work best for you? Why?

In what ways are all of these examples of student interest and learning profile cards differentiated?
Exit learning card (or pre-assessment of knowledge cards)

Name:

Explain the difference between . . .

Give an example of each.

Three things I learned

Two things I enjoyed

One question I have

3 - 2 - 1 card

NAME:

- **3 things I learned** about . . .
- **2 questions** I still have about . . .
- **1 example of . . . . . . . .** I see in the world around me . . .
Thinking about today’s lesson complete the following prompts:

- I learned…
- I was surprised…
- I’m proud that I was able to…
- I’m beginning to wonder…
- I discovered…
- My strength today was …

**Socrative**

[www.socrative.com](http://www.socrative.com)

Socrative is a free student response system that can be utilised across all platforms and smart devices. It can be accessed using apps or online via the website. The technology is simple and quick to use. Teachers login through their device and select an activity which controls the flow of questions and games. Students simply login with their device and interact in real time with the content. Quizzes can be in multiple-choice, true/false and Short Answer formats. For pre-planned activities a teacher can view reports online as a google spreadsheet or as an emailed Excel file.

**Exit Tickets/ Exit surveys**

You can check your students’ understanding as they head out the door using Exit Tickets. Gather responses on their comfort with the material as well as answers to questions you create in real time or prepare before class.
The Maker model
Differentiation can be achieved through the modification of content, process, product and/or learning environment. Teachers may adapt one or more of the curricular elements (content, process, product, learning environment) based on one or more of the student characteristics (readiness, interest, learning profile.)

However, you need not differentiate all elements in all possible ways. Effective differentiated classrooms include many times in which whole-class, non-differentiated fare is the order of the day.

By thoughtfully using assessment data and their professional judgment, teachers can modify:

- **Content** - what the teacher wants the students to learn (skills, knowledge, understanding, values and attitudes) and the materials, texts or mechanisms through which that is accomplished. The differentiation of content focuses on the knowledge, basic principles and functional concepts in particular disciplines.

- **Process** - describes activities designed to ensure that students use key skills to make sense out of essential ideas and information. The differentiation of process incorporates the use of various instructional strategies and materials which are designed to facilitate the achievement of intended outcomes at an appropriate standard for each student.

- **Products** - are vehicles through which students demonstrate and extend what they have learned. The differentiation of products enhances students’ communication skills by encouraging them to express themselves in a variety of ways. Students are given options through which they can demonstrate or exhibit what they have learned.

- **Learning Environment** – the classroom and other areas where learning experiences occur. To differentiate the learning environment teachers can change the physical environment and grouping patterns they use in class and vary the allocation of time and resources for both groups and individuals.
An Introduction to Differentiation

Content
Skills, knowledge, understanding, values and attitudes. All students should be given access to the same core content, with the complexity level adjusted to meet different learners' needs.

Differentiating content includes:
- Modification of the rate of learning including
  - The point at which learners are allowed to begin study
  - The rate at which they are allowed to learn
  - The point at which they leave an area of study
- Opportunities for student-selected areas of study within and across disciplines.
- The modification of the complexity in the area of study.
- A multidisciplinary approach to learning.

Process
A range of teaching and learning strategies designed to facilitate the achievement of intended outcomes at an appropriate standard for each student.

Differentiating process includes:
- Learning and using higher order thinking skills
  - creative thinking
  - critical thinking
  - problem solving
- Application of abstract thinking skills to student-appropriate content resulting in products at a level of sophistication appropriate for the student
- Integration of basic skills and abstract thinking skills

Product
Options through which students can demonstrate or exhibit what they have learned.

Differentiating product includes:
- Learning and using multiple forms for communicating learning
- The opportunity to present information to diverse and appropriate audiences
- The opportunity for learners to participate in the assessment of learning activities and the resulting product forms
An Introduction to Differentiation

Learning Environment
School structures, classroom setting, management, teaching and learning strategies that are adapted to accommodate different learning needs. Varying strategies to ensure that ALL students will learn. Consider how the ‘classroom environment’ can be structured to maximise student learning.

Differentiating the learning environment includes:
- Groupings which are fluid and flexible and approximate real-life situations
- Access to various materials and resources
- An atmosphere which encourages expression of new ideas, acceptance of diversity, and exploration
- Experiences reflecting learner interests and ideas
- Honoring the dignity of all learners

Notes

______________________________________________________________

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Getting Started: Carol Tomlinson video

What were Tomlinson's key messages about “Getting started”?

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Strategies for managing a differentiated classroom

- Have a strong rationale for differentiating instruction
- Begin at a pace that is comfortable for you
- Use an ‘anchor activity’ to free you to focus attention on students
- Create and deliver instructions carefully
- Assign students into groups or areas smoothly
- Ensure students have a plan for getting help when you are busy
- Minimize unnecessary noise
- Teach students to rearrange their learning environment
- Give your students as much responsibility for their learning as possible
- Engage your students in talking about classroom procedures and group processes
**What does differentiation look like?**

The chart below offers a variety of strategies that can be used to differentiate learning.

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Definition</th>
<th>I use this strategy: Never Rarely Sometimes Often Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tiered activities</td>
<td>Tiered activities are designed to instruct students on essential skills that are provided at different levels of complexity, abstractness, and open-endedness. The curricular content and objective(s) are the same, but the process and/or product are varied according to the student’s level of readiness.</td>
<td></td>
</tr>
<tr>
<td>Compacting</td>
<td>Compacting is the process of adjusting instruction to account for prior student mastery of learning objectives. Compacting involves a three-step process: (1) assess the student to determine his/her level of knowledge on the material to be studied and determine what he/she still needs to master; (2) create plans for what the student needs to know, and excuse the student from studying what he/she already knows; and (3) create plans for freed-up time to be spent in enriched or accelerated study.</td>
<td></td>
</tr>
<tr>
<td>Interest Centres or Interest Groups</td>
<td>Interest centres (usually used with younger students) and interest groups (usually used with older learners) are set up so that learning experiences are directed toward a specific learner interest. Allowing students to choose a topic can be motivating to them.</td>
<td></td>
</tr>
<tr>
<td>Flexible Grouping*</td>
<td>Students work as part of many different groups depending on the task and/or content. Sometimes students are placed in groups based on readiness, other times they are placed based on interest and/or learning profile. Groups can either be assigned by the teacher or chosen by the students. Students can be assigned purposefully to a group or assigned randomly. This strategy allows students to work with a wide variety of peers and keeps them from being labeled as advanced or struggling.</td>
<td></td>
</tr>
<tr>
<td>Anchor tasks</td>
<td>Anchor tasks are ongoing tasks that students can work on independently or in small groups when students complete work at varying rates, when teaching to a small group of students or working with individual students and/or when students are waiting for assistance. They are curriculum based, clearly defined for students with explicit success criteria and provide differentiated options to meet the needs of all students.</td>
<td></td>
</tr>
</tbody>
</table>

Jigsaw Activity

A Jigsaw activity is a collaborative learning strategy in which all students become experts or specialists on a small piece of a topic and then teach each other.

1. Form ‘Base groups’
Class divides into groups of four; to be called ‘base groups’. Within each base, members decide who will be responsible for each numbered research/reading station (1-3).

2. Form ‘Specialist groups’
All the number One students from each base group come together to form a specialist group to work at their allocated station (on their assigned topic). Similarly, numbers Two, Three and Four students from each base group form specialist groups.

Specialist groups work through the resources at their station and decide how best to convey the relevant information to their base group members.

3. Reform ‘Base groups’
Each specialist returns to their base group and takes a turn to share the information from their station with the other members of the base group.

The base group discusses the information from the four stations and decides how to present their ideas to the whole class.

Visual Representation

What learning SKILLS are developed in this type of activity?

Developing student questioning as part of differentiation

*E.g. Together* film extract activity.

1. View the selected sequence/extract from the film.
2. Write down your initial thoughts and responses to this sequence.
3. View the sequence again and then create a series of questions for the sequence. Write separately on post-it notes (or in your work books).
4. In small groups compare your questions and group them according to similar content or focus.
5. Once your group has a set of questions **you can:**
   a. Select a range of questions and translate your questions from English into Chinese/Spanish/French or . . . .
   and
   b. Swap your questions with another group and respond to each other’s questions in either English or the designated language
   OR
   c. select a question from to pose to the whole class for oral discussion and response.

Alternatively,
Teacher allocates groups a particular focus for their questions:

*E.g.*

   a. questions about plot, characters, setting
   b. under headings for ideas such as: class, cultural insights; cultural traditions; social structure; family duty, loyalty, sacrifice etc

   OR

Small groups use *interrogative dice* to prompt students to create a series of *Who, What, Where, Why, When* and *How* questions.

[Large red foam interrogative dice are available from Learning Resources; Item number LER 0629]
Differentiated Instructional Strategies – low prep or high prep?

Sourced from Tomlinson, How to Differentiate Instruction in Mixed-Ability Classrooms, 2001, p.34

✔ Already do ☞ Possible/ will try ☠ Can’t do

<table>
<thead>
<tr>
<th>Low Prep Differentiation</th>
<th>High Prep Differentiation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choices of books/text books</td>
<td>Tiered activities and products</td>
</tr>
<tr>
<td>Homework options</td>
<td>Modified assessments</td>
</tr>
<tr>
<td>Use of reading buddies</td>
<td>Independent studies</td>
</tr>
<tr>
<td>Varied journal prompts</td>
<td>Multiple texts</td>
</tr>
<tr>
<td>Orbitals*</td>
<td>Anchor activities (see p. )</td>
</tr>
<tr>
<td>Varied pacing with anchor options</td>
<td>Learning contracts</td>
</tr>
<tr>
<td>Student-teacher goal setting</td>
<td>4-MAT*</td>
</tr>
<tr>
<td>Work alone/work together</td>
<td>Multiple Intelligences/Blooms/de Bono’s hats options</td>
</tr>
<tr>
<td>Flexible seating</td>
<td>Compacting</td>
</tr>
<tr>
<td>Varied computer programs</td>
<td>Varying organisers</td>
</tr>
<tr>
<td>Options for varied modes of expression/product</td>
<td>Community mentorships</td>
</tr>
<tr>
<td>Computer mentors</td>
<td>Interest centres</td>
</tr>
<tr>
<td>Think-Pair-Share by readiness, interest, learning profile</td>
<td>Literature Circles</td>
</tr>
<tr>
<td>Use of collaboration, independence, and co-operation</td>
<td>Stations</td>
</tr>
<tr>
<td>Open-ended activities</td>
<td>Group Investigation</td>
</tr>
<tr>
<td>Mini workshops to reteach or extend skills</td>
<td>Tape-recorded/audio materials</td>
</tr>
<tr>
<td>Jigsaw activity (with ready-made available resources)</td>
<td>Jigsaw (with teacher made resources)</td>
</tr>
<tr>
<td>Explorations by interest</td>
<td>Choice Boards</td>
</tr>
<tr>
<td>Games to practise mastery of information and skill</td>
<td>Simulations and real world experiences</td>
</tr>
<tr>
<td>Multiple levels of teacher questioning</td>
<td>Inquiry/problem based learning activities</td>
</tr>
</tbody>
</table>

Notes *

- **Orbitals**: independent study projects. 3-4 week independent study projects intended to provide enrichment

  Effective for use with individual students who have already mastered the concepts the class will be working on. Provides an opportunity for them to focus on a part of the concept or separate topic of particular interest to the student (possibility something he or she is passionate about). Allow the student to share with the class what he or she has learned at the conclusion of the project.

- **4MAT** is an instructional method that connects the information students learn to prior knowledge, gives time for practice, and allows for creative adaptation of new learning. 4MAT appeals to all learners because lessons are developed to satisfy four different learning styles during the progression of the lesson. For more on 4MAT see [http://iss.gstboces.org/ctice/trainings/di/strategies/4mat.htm](http://iss.gstboces.org/ctice/trainings/di/strategies/4mat.htm) and for tutorials/online course see [http://www.aboutlearning.com/](http://www.aboutlearning.com/)
### An Introduction to Differentiation

When differentiating your unit of work what you will . . .

<table>
<thead>
<tr>
<th>KEEP</th>
<th>TRY</th>
<th>CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Image](74x202 to 177x325)</td>
<td><img src="72x49" alt="Image" /></td>
<td><img src="72x767" alt="Image" /></td>
</tr>
</tbody>
</table>

Presented by Karen Stapleton © AISNSW
An Introduction to Differentiation

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Hawker Brownlow Education, Victoria Australia

Recommended websites:

- Carol Ann Tomlinson YouTube clip: M.Ed Differentiation Sample Lesson (33') http://www.youtube.com/watch?v=6xH0K3Z-dbo
- Differentiation Central http://differentiationcentral.com