

Whole School Approaches to Inclusive Practices

At Curriculum Level:

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The Aims of this Lesson

- To have an understanding of the importance of developing a whole school curriculum.
- To think about the whole school inclusion curriculum, in terms of **goals, contents, skills** and **methods**.
- To give you time to reflect on the curriculum you have been delivering in your classroom.
- To identify relevant contents and goals, advocated in the educational reform, for the inclusion curriculum.

Differentiating Instruction: Meeting Students Where They Are

- No two students enter a classroom with identical abilities, experiences, and needs. Learning style, language proficiency, background knowledge, readiness to learn, and other factors can vary widely within a single class group.
- Regardless of their individual differences, however, students are expected to master the same concepts, principles, and skills. Helping all students succeed in their learning is an enormous challenge that requires innovative thinking.

Expectation

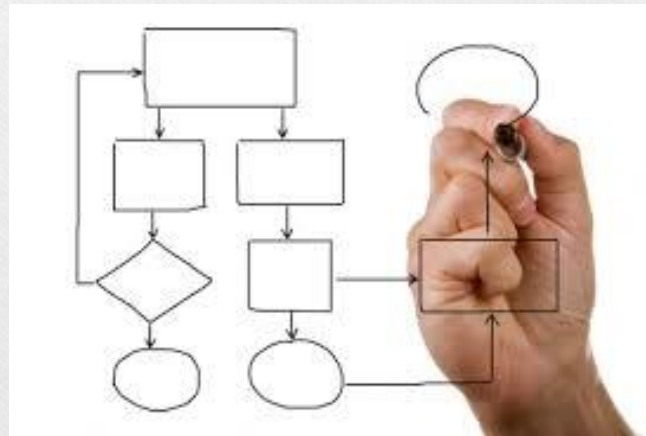


How to cater for student differences?

- ❑ Narrowing the differences among students
- ❑ Focus on students with learning difficulties
- ❑ Find out the factors related to their performance and to help them learn better

Planning !!!!

Get ready for inclusion!



Whole School Planning?

“Systematic whole-school curriculum planning is necessary to ensure that every member of the school works towards achieving the **priority learning goals** set by the school through planning short-term targets and strategic steps of **school curriculum development.**”

CDC (2002), Basic Education Curriculum Guide, p.1



The Inclusion and the Whole School Curriculum

- To establish the **links** between the inclusive **education and teaching**.
- Four aspects of teaching across the whole school curriculum are highlighted:
 - *What are we aiming at?*
 - *What contents do we select to teach?*
 - *What's all this about active methods?*
 - *What skills are we trying to promote?*

Goals in Whole School Inclusion Curriculum

Here is a list of the purposes of learning at school:

- 1) to provide all students with **life-long learning experience**
- 2) to promote their **whole-person growth** and **individual potential**
- 3) to educate students as active and responsible **members of society**, the nation and the **world**
- 4) to cultivate positive **values and attitudes**
- 5) to develop **generic skills**
- 6) to help students **acquire and construct knowledge**

CDC, (2001) Learning to learn-the way forward in curriculum development.

Generic Skills

In Whole School Inclusion Curriculum

- Generic skills are **fundamental** to learning.
- Nine are identified in the educational reform document:
 - Collaboration skills
 - Communication skills
 - Creativity
 - Critical thinking skills
 - Information technology skills
 - Numeracy skills
 - Problem-solving skills
 - Self-management skills
 - Study skills

Activity

- Regarding your school's or classroom's patterns in SEN, which generic skills do you think are more crucial to be developed?
- Can you identify activities appropriate to your classroom which may enhance the skills you have identified?

Why should we have a whole school curriculum plan for inclusive education?

- It clarifies the ways topics **link** to one another and to broader concepts.
- It provides a **sequential and balanced** learning experience for students
- It encourages more systematic **accumulation of resources**.
- It provides a **common reference point** for school members.

- It fosters a stronger sense of **vision and purpose** as the plan is reviewed and evaluated.
- It provides **support** for new **staff**.
- It establishes a **framework** that can be evaluated against list of desired outcomes.

Murdoch, K & Hornsby, (1997). Planning curriculum connections: Whole school planning for integrated curriculum. Australia: Eleanor Curtain Publishing.

Principles for developing a whole school curriculum plan

- To make **goals** of inclusive education clearly stated in all curriculum documents.
- To connect learning to **values** of inclusive education.
- To begin with the **8 Key Learning Areas**.
- To use the **Indicators for Inclusion** as the key reference to curriculum planning.
- To ensure **smooth progression** in curriculum design.
- To make the **time allocation flexible**, but not fixed.
- To foster **team planning**.

8 Key Learning Area

1. Chinese Language Education
2. English Language Education
3. Mathematics Education
4. Science Education
5. Technology Education
6. Personal, Social and Humanities Education
7. Arts Education
8. Physical Education

- To **accommodate** student interest.
- To use appropriate approaches to teaching, learning and assessment **across all subjects**.
- To widen the **contexts** where students learn.
- To **evaluate** the curriculum plan regularly.
- To **adjust** targets and strategies in relation to the change of school capacity.

(Murdoch, K & Hornsby, 1997; CDC 2001)

Activity

Think about the SEN classes you manage. Discuss

- 1) the ways in which you have managed to achieve some of the goals and principles listed above; and
- 2) to what extent you have achieved all these goals.
- 3) whether the goals of learning for SEN students should differ from those for “mainstream” students.

Content of Whole School Inclusion Curriculum

*Starting from **Personal, social and health education (PSHE)***

- Too often curriculum is described as a list of ‘subjects’.
- The disadvantages of subject-based description:
 - Subjects **fragment** the curriculum.
 - The enormous **growth of knowledge** demands more economical ways of **organizing** it for the purpose of learning.
 - The **boundaries** which are drawn around subjects are **arbitrary**.

- Breaking the boundary of the existing subjects helps us:
 - **link** the development of competence, skills, values, attitudes,, and knowledge and understanding into a holistic learning process.
 - **integrated** content which are relevant to inclusive education across different subject areas.
 - **accommodate** content of inclusive education and its knowledge, values and attitude into the current curriculum.

CDC (2002), Personal, social and humanities education: Key learning areas curriculum guide (Primary 1-Secondary 3). HK: the Printing Department.

Differentiated Instruction

- Differentiating instruction means creating **multiple paths** so that students of different abilities, interest or learning needs experience equally appropriate ways to absorb, use, develop and present concepts as a part of the daily learning process.
- Research indicates that many of the emotional or social difficulties gifted students experience disappear when their educational climates are adapted to their level and pace of learning.
- Differentiated Teaching





"Tell me and
I forget."

Teach me and
I remember.



Involve me
and I learn."

Benjamin Franklin

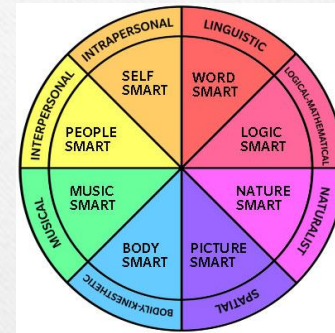


Principles in establishing a differentiated classroom:

- **Assessment is ongoing and tightly linked to instruction**
 - Teachers are gatherers of information about their students and how those students are learning at a given point.
 - Whatever the teachers can glean about student readiness, interest, and learning helps the teachers plan next steps in instruction.

How to cater student's interests and personalities?

- Does Differentiated Teaching means providing 35 different options for a class with 35 students?



- Enneagram of Personality
- MBTI
- Brainstorming for subtopics within a curriculum concept
- Using semantic webbing to explore interesting areas of the concept
- This is an effective way of teaching students how to focus on a manageable subtopic

Methods in whole School Inclusion Curriculum

- Learning derives from the methods employed in the classroom.
- Central to these methods
 - To **promote** the inclusion
 - To engage students in some learning activities with a **social goal or process**
 - To **review** the **outcomes and process** of these activities
 - To address the **personal and social implication**

WHAT IS DIFFERENTIATION?

Differentiation is a targeted process that involves forward planning, programming and instruction. It involves the use of teaching, learning and assessment strategies that are fair and flexible, provide an appropriate level of challenge, and engage students in learning in meaningful ways. Differentiated programming recognizes an interrelationship between teaching, learning and assessment that informs future teaching and learning.

Differentiated Teaching Strategies

Teachers can differentiate at least four classroom elements based on student readiness, interest, or learning profile:

- Content – what the student needs to learn or how the student will get access to the information;
- Process – activities in which the student engages in order to make sense of or master the content;
- Products – culminating projects that ask the student to rehearse, apply, and extend what he or she has learned in a unit;
- Learning environment – the way the classroom works and feels.

<http://www.learnnc.org/lp/editions/every-learner/6680>

Content

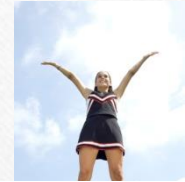
- Using reading materials at **varying readability levels**;
 - Using spelling or vocabulary lists at readiness levels of students;
- Presenting ideas through **both auditory and visual means**;
 - Putting text materials on tape;
- Using **reading buddies**;
- Meeting with small groups
 - to **re-teach** an idea or skill for **struggling learners**
 - to **extend** the thinking or skills of **advanced learners**



Process

- Using **tiered activities** through which all learners work with the same important understandings and skills, but proceed with different levels of support, challenge, or complexity;
 - Providing **interest centers** that encourage students to explore subsets of the class topic of particular interest to them;
 - Developing **personal agendas** (task lists written by the teacher and containing both in-common work for the whole class and work that addresses individual needs of learners) to be completed either during specified agenda time or as students complete other work early;
 - Offering **manipulatives or other hands-on supports** for students who need them;
 - Varying the length of time a student may take to complete a task
 - provide **additional support** for a **struggling learner**
 - encourage an **advanced learner** to **pursue a topic in greater depth**

Products



Area for assessment

Knowledge, recall and understanding

These relate to what a student knows.

Assessment activities may include:

- background knowledge quizzes, multiple-choice questions, true/false questions, pen-and-paper and electronic tests
- outlining key ideas using words, short phrases and brief sentences
- defining key terms and concepts
- comprehension and interpretation exercises
- cloze and matching exercises
- labelling a diagram
- making a timeline
- classifying types of processes or events
- sharing ideas and information
- retelling stories
- making a podcast/vodcast
- activities that incorporate digital literacies
- recalling and recognising terms and facts
- recording learning using diaries, journals and blogs

Skills in problem-solving

These skills relate to recognising problems and determining possible solutions.

- problem-recognition and problem-solving
- brainstorming
- generating questions
- selecting and applying appropriate strategies to a context
- researching
- simulations and problem-solving scenarios
- game-based learning

Learning environment

- Making sure there are places in the room to work quietly and without distraction, as well as places that invite student collaboration;
- Providing materials that reflect a variety of cultures and home settings;
- Setting out clear guidelines for independent work that matches individual needs;
- Developing routines that allow students to get help when teachers are busy with other students and cannot help them immediately;
 - Helping students understand that some learners need to move around to learn, while others do better sitting quietly.

Design "respectful activities" for all students

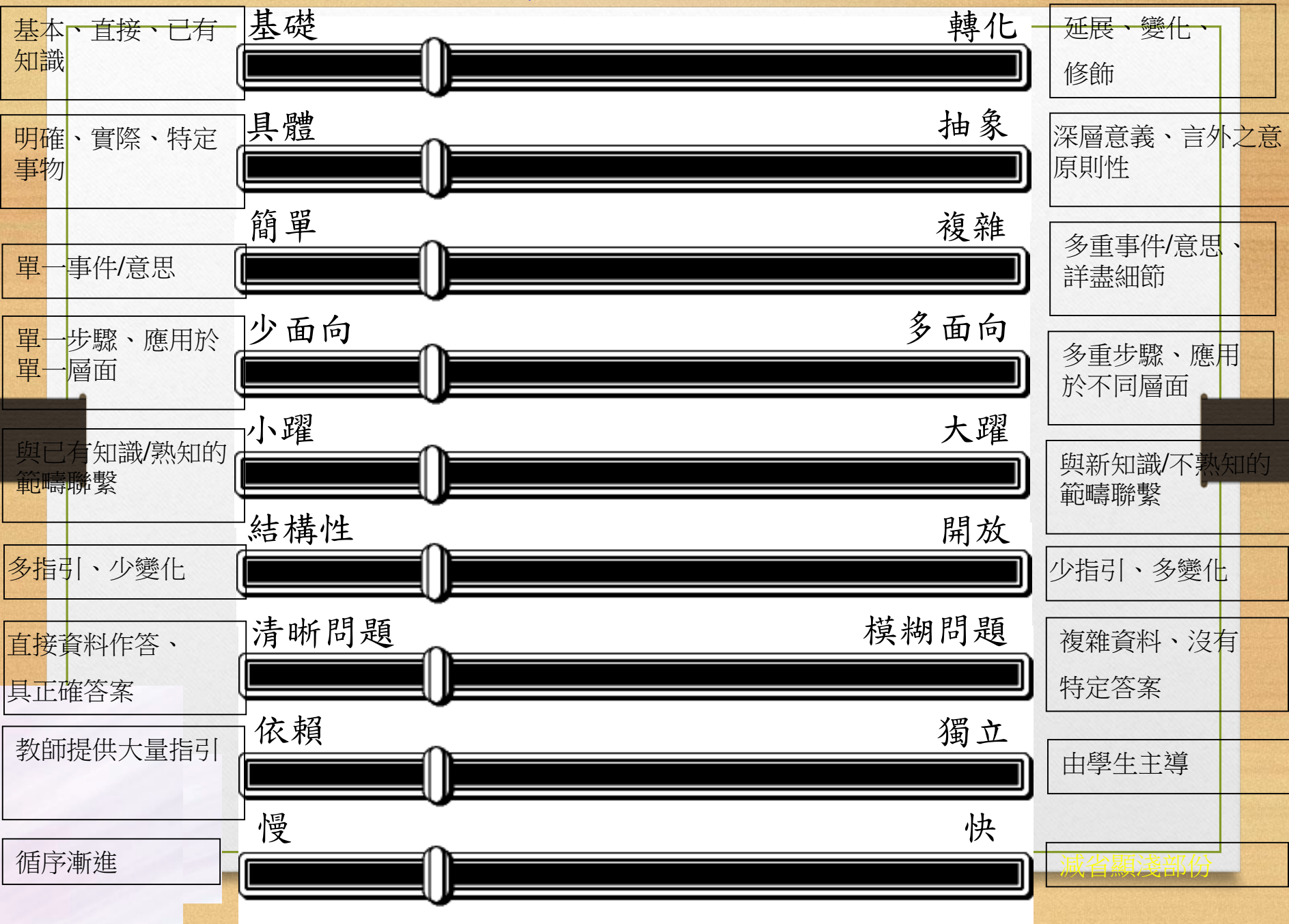
- Each student's work should be equally interesting, equally appealing, and equally focused on essential understandings and skills.
- There should not be a group of students that frequently does "dull drill" and another that generally does "difficult task".
- Everyone is continually working with tasks that students and teachers perceive to be worthwhile and valuable.



"The Equalizer" to Chart the Complexity of An Activity

Foundational	Information, Ideas, Materials, Applications	Transformational
Concrete	Representations, Ideas, Applications, Materials	Abstract
Simple	Resources, Research, Issues, Problems, Skills, Goals	Complex
Fewer Facets	Disciplinary Connections, Directions, Stages of Development	Multi-Facets
Smaller Leap	Applications, Insight Transfer	Greater Leap
More Structured	Solutions, Decisions, Approaches	More Open
Clearly Defined Problems	In Process, In Research, In Products	Fuzzy Problems
Less Independence	Planning, Designing, Monitoring	Greater Independence
Slower	Pace of Study, Pace of Thought	Quicker

Tomlinson's Equalizer課程設計“均衡器”(2005)



1. Foundational (基礎的)

老師講解閉合電路的原理後，讓學生透過製作「**串聯閉合電路**」，指出串聯閉合電路的特點及缺點。

Information, Ideas,
Materials, Applications

Topic:常識-
閉合電路 (P5)

Transformational
可轉化的(有啟發性的/
可產生新意念的)

學生掌握閉合電路的原理後，老師著學生嘗試用其他的方法連接電線，藉此啟發他們思考設計「**並聯閉合電路**」的關鍵。

2. Concrete

具體的(淺白的)

Representations, Ideas,
Applications, Materials

Abstract

抽象化(尋找深層的
數學規律、關係...)

$$1. 45 \times 45 =$$

$$2. 16 \times 49 =$$

Topic:乘法(P3)

試計算:

$$15 \times 15 =$$

$$25 \times 25 =$$

$$35 \times 35 =$$

$$45 \times 45 =$$

$$75 \times 75 =$$

從中你能觀察到什麼
數學規律、結構、
關係?

3. Simple 簡單的

試估算碗內白米的總數。(現有工具：小量羹、格仔紙、磅…)



Representations, Ideas,
Applications, Materials

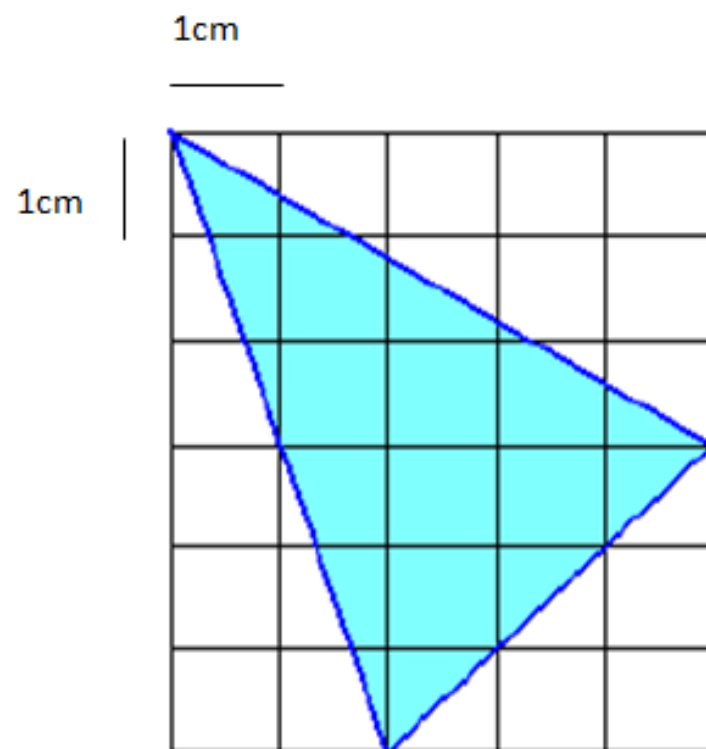
Topic: 估算(P5)

Complex
複雜化(賦予多些細節
或層面)

- a) 試想出三種或以上的估算方法估算碗內白米的總數(現有工具：小量羹、格仔紙、磅…)並仔細描述估算的過程。
- b) 請指出每種估算方法的利弊。
- c) 你可如何改善每種估算方法呢?



1. How many ways can you find the area of the shaded triangle?



4. Fewer Facets 少層面的

Disciplinary Connections,
Directions, Stages of
Development

Multi- Facets

多層面的(多些層面、
多些變量、跨科的...)

列舉上世紀至今
交通工具的發展。

Topic: 交通工具
(P5)

探討上世紀至今交通
工具的演變及革新特
色或規律，並找出引
發此等改變與政治、
社會民生、科技發展
等因素的關係。

5. Smaller leap 小躍進

Application, Insights,
Transfer

Greater leap

大躍進(將知識應用在
和課堂學習很不同的情
景;知識轉移)

試量度以下線段的
長度

Topic:量度長度(P1)

試分別量度以下周界的
長度:

a)學校籃球場;

b)鄰近的公園。

哪個周界較長呢?

6. Structured

高度組織
(多限制的、
高度指引的)

Solutions, Decisions,
Approaches

More Open

開放的(少限制的、容
許學生自行決定及自由
回答的)

中文: (P4)

試比較兩位作家的
童話故事的特色之
異同。

中文: (P6)

閱讀兩則由老師提
供有關報導**瀕危絕
種「藍鰭吞拿」**的
報導後，分辨報導
中哪些屬事實或意
見部分？

試改寫一則童話故事。

學生以小記者的身份，
撰寫一篇短評，分析在
一場「**保護藍鰭吞拿**」
的論壇中各界人士的意
見，並提出自己的觀點
及建議解決方案。

6. Structured

高度組織
(多限制的、
高度指引的)

English:

- Students learnt the letter format & follow a template to complete a guided writing.



Solutions, Decisions,
Approaches

More Open

開放的(少限制的、容
許學生自行決定及自由
回答的)



English Creative Writing:

- After reading the big book- "*The Jolly Postman or Other People's Letters*", students are asked to write a letter to the author, suggesting who will be the next person receiving a letter from the postman and the development of the story.

7. Clearly Defined Problems

清晰定義的問題

In Process, In Research,
In Products

Fuzzy Problems

模糊不清的問題(學生需自行定義問題或自行搜集資料界定問題)

問題:
你是城市規劃師，
現需於一個月內
草擬一份美化社區
的行動計劃書。

Topic:常識/跨科
(P6)

問題:
有一個城市缺乏大型運輸系統。你是城市規劃師，現在有一個月時間制訂可行的方案，但你的資源已經用於另一個美化城市的計劃。此外，該城市20英里之外將興建一個新機場，但協商的工作停滯不前，你該怎樣做？

8. Dependence 依賴

依照課本中的實驗指示，記錄植物樣本在不同日照情況下的生長差異。

Planning, Designing,
Monitoring

Topic:科學探究
(P5)

Independence

獨立 (提供較少指引和協助)

獨立研究

學生自擬一項探究式 (Inquiry-based) 實驗，試從控制不同變項，對植物生長與受日照程度的關係作出假設、驗證及推論。(過程中學生需自行作檢視及修訂實驗設計。)

8. Dependence 依賴

Planning, Designing,
Monitoring

Independence

獨立(提供較少指引和
協助)

專題研習

1. 題目: 幾何圖形

2. 步驟:

A) 閱讀以下資料來源 <http://www.?????????>

B) 然後解答以下問題:

a. 甚麼是幾何圖形?

b. 哪些建築物可找到幾何圖形?

c. ...

Topic: 幾何圖形
(P4-6)

獨立研究

如何應用幾何學於日常生活?
(例如在建築上/
藝術上/其他你感興趣的領域)

*學生可自定搜集資料
方法及研究方法, 有需要時才諮詢老師意見*

9. Slower 較慢

部分學生較慢完成堂課，可給予多些時間完成，或給予多些協助。

Pace of Study,
Pace of Thought

Topic:任何課題
(class work)

Quicker

較快(學習速度較快)

部分學生較快完成堂課，可給予一些趣味難題，作為挑戰。

Flexible grouping is a hallmark of the class

- Teachers plan extended periods of instruction so that all students work with a variety of peers over a period of days.
- Group students with:
 - like-readiness peers
 - mixed-readiness groups
 - similar interests
 - different interests
 - peers who learn as they do
 - Randomly
 - the class as a whole.



In addition, sometimes students will select their own groups. Flexible grouping allows students to see themselves in a variety of contexts.


Paradox

‘One curriculum for all’ Vs ‘Differentiated instruction’


- The essential curricula concepts may be the same for all students but the complexity of the content, learning activities and/or products will vary so that all students are challenged and no students are frustrated.
- Students with specific needs/weaknesses should be presented with learning activities that offer opportunities for developing needed skills as well as opportunities to display individual strengths.
- More advanced students may work on activities with inherently higher level thinking requirements and greater complexity.

Common Learning Difficulties

Learning Difficulties Presented	Possible Causes	Outline of Suggested Elements to be Included in the Remedial Teaching Strategies
<p><i>Motivation</i></p> <p>Lack of interest in schoolwork</p>	<ul style="list-style-type: none"> -School work too difficult to manage -Lessons going too fast -Content not comparable to social experience or stage of maturation -Do not find any value in studying certain subjects 	<ul style="list-style-type: none"> -Find out pupils' baseline and design tasks appropriate to their abilities -Appropriate task analysis for the teaching content into manageable steps for pupils -Be observant of pupils' current interests and bring them into the teaching content & presentation to enhance interest in learning -Incorporate relevant topics and practical examples -Employ attractive teaching methods e.g. use appropriate media, include more activities

Learning Difficulties Presented	Possible Causes	Outline of Suggested Elements to be Included in the Remedial Teaching Strategies
<p><i>Family Problems</i></p> <p>Reject school education</p> 	<ul style="list-style-type: none"> -Both pupils & parents lack realistic expectations on school education -Teaching aims and targets are not clearly known to pupils 	<ul style="list-style-type: none"> -Pupils and parents counseling on the functions of school -Clear learning objectives for each learning area, subject, topic and lesson -Selection of teaching content relevant to daily life -Point out the relevance of learning topics which seems far-fetched to pupils

Learning Difficulties Presented	Possible Causes	Outline of Suggested Elements to be Included in the Remedial Teaching Strategies
<p><i>Self-images</i></p> <p>Lack of confidence</p> <p>Cannot work independently</p> <p>Do not dare to try anything new</p>	<p>-Repeated failure</p> <p>-Being constantly reprimanded</p> <p>-Fail to understand one's potential</p> <p>-In lack of encouragement and opportunities to success</p>	<p>-Arrange opportunities to get meaningful success to enhance self image e.g.</p> <ol style="list-style-type: none"> 1. Start teaching at pupils baseline, break the content into manageable steps and give feedback on pupils' performance 2. Explore non-academic potentials of pupils 3. Constant positive but realistic remarks and encouragement by teachers and other staff 4. Train pupils in effective study skills 5. Alternate difficult tasks with tasks in which pupils are competent

Learning Difficulties Presented	Possible Causes	Outline of Suggested Elements to be Included in the Remedial Teaching Strategies
<p><i>Attention Problem</i></p> <p>Not attentive</p> <p>Cannot stay long on any piece of work</p> <p>Easily distracted</p> 	<ul style="list-style-type: none"> -Related to interest and relevance of teaching material & method -Short attention span -Long for immediate gratification -Peer influence -Feeling insecure 	<ul style="list-style-type: none"> -Select appropriate teaching content and teaching method -Organise the teaching content into small steps to ensure success within a short period of time and then gradually extent the steps -Positive recognition for each small step of learning to encourage persistence in achieving targets -Create predictable working environment to enhance sense of security and autonomy

Learning Difficulties Presented	Possible Causes	Outline of Suggested Elements to be Included in the Remedial Teaching Strategies
<p><i>Cognitive Problems</i></p> <p>Not well developed in thinking and organisation skills</p>	<ul style="list-style-type: none"> -Not encouraged or given chances to think -Lack of systematic training and practice 	<ul style="list-style-type: none"> -More effective teaching and discussion to foster pupils thinking and organizing abilities -Training in thinking skills -Training in task analysis

Learning Difficulties Presented	Possible Causes	Outline of Suggested Elements to be Included in the Remedial Teaching Strategies
<p><i>Behavioural & Emotional Problems</i></p> <p>Disruptive in class</p>	<ul style="list-style-type: none"> -Attention seeking -Boredom -Peer influence -Lack of rapport with teachers -Lack of communication skill 	<ul style="list-style-type: none"> -Arrange legitimate opportunities to excel oneself -Effective selection of teaching content and methods -Cultivate good teacher-pupils relationship through better understanding of pupils' background and behaviour -Training in communication skills



Conclusion

- It is important to **offer students learning tasks that are appropriate** to their learning needs rather than just to the grade and subject being taught.
- This means **providing different options** for students in any given class according to their ability, learning styles and interest **vary between students and even within an individual over time.**
- In a differentiated classroom **all students have equally engaging learning tasks.**