Self Regulated Learning & SCT

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Self Regulated Learning (SRL)

This is when students are able to control their own thinking process (Zimmerman 1990). They learn to become 'metacognitively wise' (Galton et al, 2015). It involves 4 main steps.

1. Goal setting: Students have to assess the nature of the task and its demands.
2. Planning a course of action
3. Monitoring the process
4. Evaluating performance

Zimmerman, B. (1990) Self Regulated Learning and academic achievement: An overview, *Educational Psychologist,* 25, 3-17.

Goal Setting

Goal Setting

In order to set goals, students must have a clear understanding of what counts as a successful outcome. There are several ways that teachers can establish '*success criteria*'. For SRL, it is best done if students are actively involved in establishing the criteria rather than the teacher merely stating them.

Developing success criteria: Some examples

1. Writing a clear set of instructions. Pupils have to tell others how to do something (get to a certain location; make a model; follow a recipe etc.,). They look at examples and see how they can be improved.

2. The teacher takes two pieces of work from the previous year (one good, another average), blanks out names and any marks and asks the students to tell him/her why one piece was superior.

Developing success criteria I

To write a clear set of instructions:

- Pick a relevant title: *Making Prawn Dim Sum*
- State what you need (*150g raw tiger prawns, 15g root ginger, 2 spring onions, 1 carrot, 2 cloves of garlic, 18 wonton wrappers, etc.*)
- State what you need to do (*Chop and mix ingredients. Make a sealer with 2 teaspoons of cornflower mixed with 2 teaspoons of water. Brush edges of wrappers. Place a teaspoon of filling in centre and seal. Steam for 15 minutes.*)
- Provide clear diagrams/pictures
- Use bullet points

Taken from 'Hairy Bikers' on BBC TV

Developing success criteria II

Looking at the work of former students.

A class of 9 year old pupils have looked at the work of last year students who had to write a biographical account of a fictitious character. They then use the criteria to evaluate their own performance.

Developing success criteria III

A display of posters: putting forward a strong case.

Groups in a class of 10 year old pupils have had to discuss whether it is right that developing countries should continue to use fossil fuels, although these cause global warming. They have to summarise their arguments on posters which are displayed on the classroom walls. Groups have to decide which poster is most effective and why.

Extended writing

LO _To write a biography in 40 minutes__

BLP___Capitalising_____

LO: To write a biography.			
Success Criteria:	More Help	OK	Know It
My targets:			
To join my I's and L's			✓
To use adverbs to start sentences.		✓	
I can show my feelings about the subject (in role).		✓	
I can include quotes.			
I can write a conclusion which evaluates the person's life and their impact on the world.		✓	
I can write in chronological order.			
I can include some interesting facts.			
I can write in the past tense.			
I can include dates and ages for key points in their life (they may be dead).			
I can write an introduction to say why the person is special.		✓	
I can write a helpful plan			

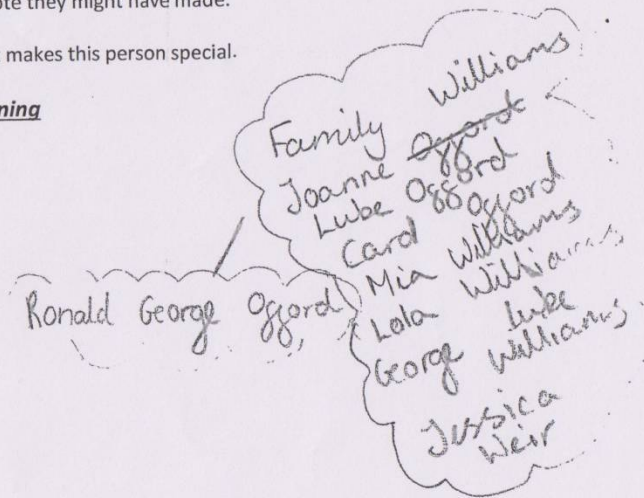### You might want to think about.

When they were born, married, had children.

Interesting details of their life.

A quote they might have made.

What makes this person special.

Planning

Ronald George Oggord

Family Williams
Joanne Ogord
Luke Oggord
Carol Ogord
Mia Williams
Lola Williams
George Luke Williams
Jessica Weir

Planning

Planning a course of action

Once success criteria have been decided the next step is to *plan* how to achieve them. To make the activity worthwhile the task must be reasonably challenging (so pupils are sufficiently motivated) but not so difficult that some students are not prepared to make the effort. This requires skilful scaffolding on the part of the teacher. The planning stage should teach pupils to think *strategically*.

Two types of scaffolding

1. **Teacher directed scaffolds** including *modelling* (teacher thinks through the planning process out loud and asks pupils to comment) and *guidanc*e (questions pupils, makes suggestions on pupils' ideas)

2. **Task embedded scaffolds** where the teacher limits the range of possibilities. An example occurred when the teacher required pupils to come up with a list of suitable foods for an 'end of year' class party. The teacher set the overall sum available and stipulated that any item should not cost more than a certain amount.

Risk and Ambiguity in scaffolds

Research suggests that task embedded scaffolds are to be preferred whenever possible. This is because challenging tasks are *ambiguous* (there is no clear correct answer) and because of this they carry the *risk* that the answer arrived at will be unsatisfactory. Teacher directed scaffolds, particularly guidance, lower this *risk* by reducing the *ambiguity* because the teacher offers hints of what answers could be acceptable.

Task embedded scaffolds work the other way. They lower the *risk* by limiting the scope but maintain the *ambiguity* involved and thus continue to challenge pupils' thinking.

Monitoring

Monitoring the Process

Once pupils have established success criteria and planned activities accordingly they need help in monitoring the process so that they stay on a track leading to a successful outcome. Because pupils are learning to manage their own thinking the feedback they receive from the teacher should be of a kind that helps them to identify possible errors and then to correct these. Hattie and Timperley (2007) refer to this as Task *Processing* Feedback.

Providing Effective Feedback+

Three elements (Hattie & Timperley (2007):

Feeding Upward – this has to do with setting success criteria. If pupils know what is expected of them they can track their performance.

Feeding backwards - indicates to pupils how they are doing and involves information about a pupil's progress or advice on what to do next.

Feeding forwards – provides information which on future occasions allows pupils to exercise more control over their learning by choice of appropriate strategies, ability to spot errors etc. This is a key part of SRL.

Feeding backwards

This form of feedback has to do with pupils applying the stated success criteria so that they can assess their own progress with or without the help of the teacher. Traffic lights (*Red =I need the teacher's help. Orange= I can get another pupil to help me and green= I can cope by myself*) are a simple example of this process.

Some researchers recommend the use of a more extended rating system such as, *I could teach this to the class* (5) *I could talk about this in my group* (4) *I still have some problems* (3) *I only understand some parts* (2) *I have no idea* (1) .

This can be coupled with an effort rating scale, *I try to do more than asked* (5) *I stick at it until I complete the task* (4) *I try to understand by asking questions* (3) *I tend to give up if the work is too hard* (2) *I don't make a lot of effort* (1).

This is preferable to the teacher asking general questions of the class such as, '*Did you all understand/work hard/enjoy the activity?*' which are usually answered in by a chorus of affirmatives by the whole class.

Tuesday 23rd September   ~~Field trip would be letter.~~   24.

It was a crisp winter morning ~~futher~~ Lieutenant Charles Taylor was sat in ~~his~~ the cockpit. He glanced over his left shoulder "Left proppellor ok," he paused and glanced ~~of~~ over his right "Same with the right one."
He put the radio down and coughed he then gave the signal of take off to the other four planes.

"Ready?" a ~~distorted~~ voice came from the little box.

"Ready," He pulled the throttle and the engine erupted with sound. They headed down the runway. Faster, he pushed the throttle further, faster, faster, further again, faster and faster until the wheels left the ground. Charles leant back enjoying yet another voyage into the ~~skys~~ skies. He smiled out the window to the ~~deep endless sky~~, earth below.

"Lieutenant, Lieutenant?" the crackly voice from the control tower spoke again.

"All ok?"

"All is fine, clear skies, above cloud level, no problems."

I can write a narrative of the events of flight 19. I can use complex speech structures and punctuate them correctly.	Me	Partner
Must: Describe at least 3 <u>ordinary</u> events in the cockpit.	✓	✓
Should: Use speech that includes what the character is doing. e.g '_____' said John, preparing the plane for take-off.	✓	✓
Could: Use speech in the structure '_____,' said John. '_____.'	✓	✓

☆ Great introduction Katie.

(ii) Write a sentence describing the view out of the plane after take off.

The skys where clear, not a cloud in sight except the occasional wisp of white.

25.

Feeding Upwards

PEER MARKING

Written assessments provide the main way that teachers can feedback information about a pupil's progress but these can be supplemented by question and answer sessions of the extended kind to test for understanding as well as knowledge and application.

Teachers can cut down on the workload by getting pupils to mark each other's work by exchanging worksheets and/or having pupils come to the front to demonstrate their working.

Simple taxonomies can be used so that the first 5 questions deal with knowledge recall. The next 5 with application, the next 5 with understanding (application in novel situations). Pupils call out how many marks they got in each section to give a profile as well as a total score which the teacher (or in some cases the pupils, themselves) enter/s into the computer.

Tuesday 23rd September   *Full stop would be better.*   24.

It was a crisp winter morning ~~Lieu~~ Lieutenant Charles Taylor was sat in ~~his~~ the cockpit. He glanced over his left shoulder "Left proppellor ok," he paused and glanced ~~of~~ over his right "Same with the right one." He put the radio down and coughed he then gave the signal (of take off) to the other four planes.

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Feeding forwards

This is the key element for independent learning (i.e. the pupil's ability to exercise self-regulation and involves selecting an appropriate strategy, anticipating of likely problems and identifying and correcting any errors). This is often done as a question and answer session as part of de-briefing at the end of a lesson. There are other ways which put more onus on the pupil.

In English not correcting every grammatical mistake but putting a question mark alongside the text (e.g. missing a capital letter after a full stop.)

Identifying how to write a good short story by getting pupils to look at some examples and explaining the importance of a *beginning,* a *development,* a *climax* and an *ending* (e.g. the beginning must capture the attention, the climax must be exciting, the ending surprising etc. Then get pupils to write alternative beginnings/endings to a chapter in a favourite published story.

Feedback Practice I

The main disadvantage of relying mainly on written assignments to provide feedback on pupil learning is that by the time these are marked it is too late for the teacher to modify the lesson so that the topic needs to be re-taught.

On the other hand, although strategies such as peer marking can help speed up this process, the various forms of feedback discussed previously can be time consuming. **Mok** (2010) suggests that activities such as debriefing etc should only be used when potential misunderstandings are critical to the acquisition of key concepts, for example, reading poetry in a dramatic fashion (pronunciation, speed and intonation) or describing characters in a story (by their actions, habits, speech and feelings).

Feedback Practice II

Wiliam (2011) suggests that with written work teachers select three key points for reflection. Examples are circled in the text and the teacher then writes a question and leaves a space for the pupil's answer. This approach meets Wiliam's criteria for effective feedback; that it should result in more work for the receiver than the giver.

I can write a balanced argument/ Thursday 2nd October
discussion

E. A

Dear Luis,   Not quite. Talk to Erka about this.

Thank you for writing to us in your spare time. It was
thoughtfull of you to do so. We have had to take on
loads of responsibilities like you. Here are some
of them: Did you talk to Erka about this?
House captain,
School council,
Junior Road Safety Officer,   Yes
etc.
It's such hard work in Y6. We do target work here
to hit more targets. Do you?
    Did you say that you were going across the
Bermuda Triangle? 'Cause if so, then we have a lot
                            think about whether to go or not
of information to help you towards going. Please
read on.

M : ✓
S : ✓   = Lists can be written on the same line = find it
C : ✓   harder to do it on same line. Try to.
SA : ✓
        EG : I need the following : milk, bread and butter.

        Write three lists that show you understand this :

        ① She had chocolate, strawberries and crisps.
        ② They bought sugar, cakes and sugar
        ③ They needed bread, water and ice creams.

See. It wasn't that - B.K   Brilliant!
hard!
    ☺

Use of Learning Logs I

In another approach **Mok** (2010) recommends the use of *Learning Logs* in which pupils keep a record of their learning goals (based on success criteria) and self-assess how far these have been achieved. This assessment is supported by evidence from tests, homework, contributions to class discussion, peer assessments etc). Pupils can discuss their logs with the teacher and parents in deciding what must be done to close the gap between intended goals and outcomes.

Use of Learning Logs II

Wiliam (2011) also encourages the keeping of a learning file/log, but stresses it is important to establish ground rules for deciding what it is acceptable to include in the file. *"I could do better in fractions if I was taught by Miss W instead of Mr L"* would cause problems. If guidelines are not available then a pupil is likely to provide mundane answers such as, *"I could improve in my writing if I remembered to sharpen my pencil"*.

For younger pupils simple prompts can be used such as, *"Today I learned," "I need to find more about", After the lesson I feel"* etc. Wiliam suggests not more than 3 prompts on any occasion.

Evaluating Performance

Evaluating Performance

To aid SRL pupils must be able to engage in the evaluation process. But terms such as 'formative' assessment and 'school based' assessment (SBA) have largely been interpreted as setting regular mini-tests, more frequent marking of written work etc., and this is linked to detailed record keeping as a way of demonstrating progression

Lesson objectives are mostly set in broad terms of knowledge to be acquired or content to be learned and this lends itself to written testing. Little attention is given to process objectives which enable teachers to establish *success* criteria so that pupils can do the evaluation themselves.

Some Purposes of Assessment?

This is what some Hong Kong teachers said:

- To differentiate between students' ability

- To decide what to do next

- To reflect on my teaching

- To find out those aspects of the learning where pupils needed to improve

- To improve learning attitudes by rewarding successful pupils

There was no mention of the pupils' role!

What about Pupils? What do they get out of it?

The previous reasons have to do mainly with the teachers' needs and not the pupils. The purposes cited were about

ASSESSMENT *OF* LEARNING.

But there are two other purposes:

ASSESSMENT *AS* LEARNING.

and

ASSESSMENT *FOR* LEARNING.

The 3 kinds of Assessment

Assessment *of* Learning (AoL) any summative measure which identifies what has been learned at the end of a lesson/topic/end of year etc.

Assessment *as* Learning (AaL) concerns ways of improving learning (the *how*).

Assessment *for* Learning (AfL) concerns what a pupil must do to improve (the *what*) and involves the need for pupils to understand what they must do to succeed, the provision of effective feedback, and active involvement of pupils in decisions about their learning (Broadfoot et al. 1999; Clarke (2008). This is a key element of SRL.

An Example

Children are learning to use adjectives

AoL: Overall did pupils use adjectives in ways that were appropriate-enhanced the meaning etc?

AaL: Was the particular adjective the most appropriate? (e.g. Could *fine* in the sentence, *It was a fine day*, be improved?

AfL: The pupil reads a paragraph of a story describing the weather to see how the adjectives used enhance the description of the day.

Clarke (2008)

SCT: Its Links to SRL

Six Principles of Effective SCT

During the introduction of small classes in Hong Kong primary schools there has been a concerted effort to improve the quality of teaching and learning with less teacher talk, greater participation by pupils, more active, independent learning etc. All these factors are part of a self regulatory approach to learning.
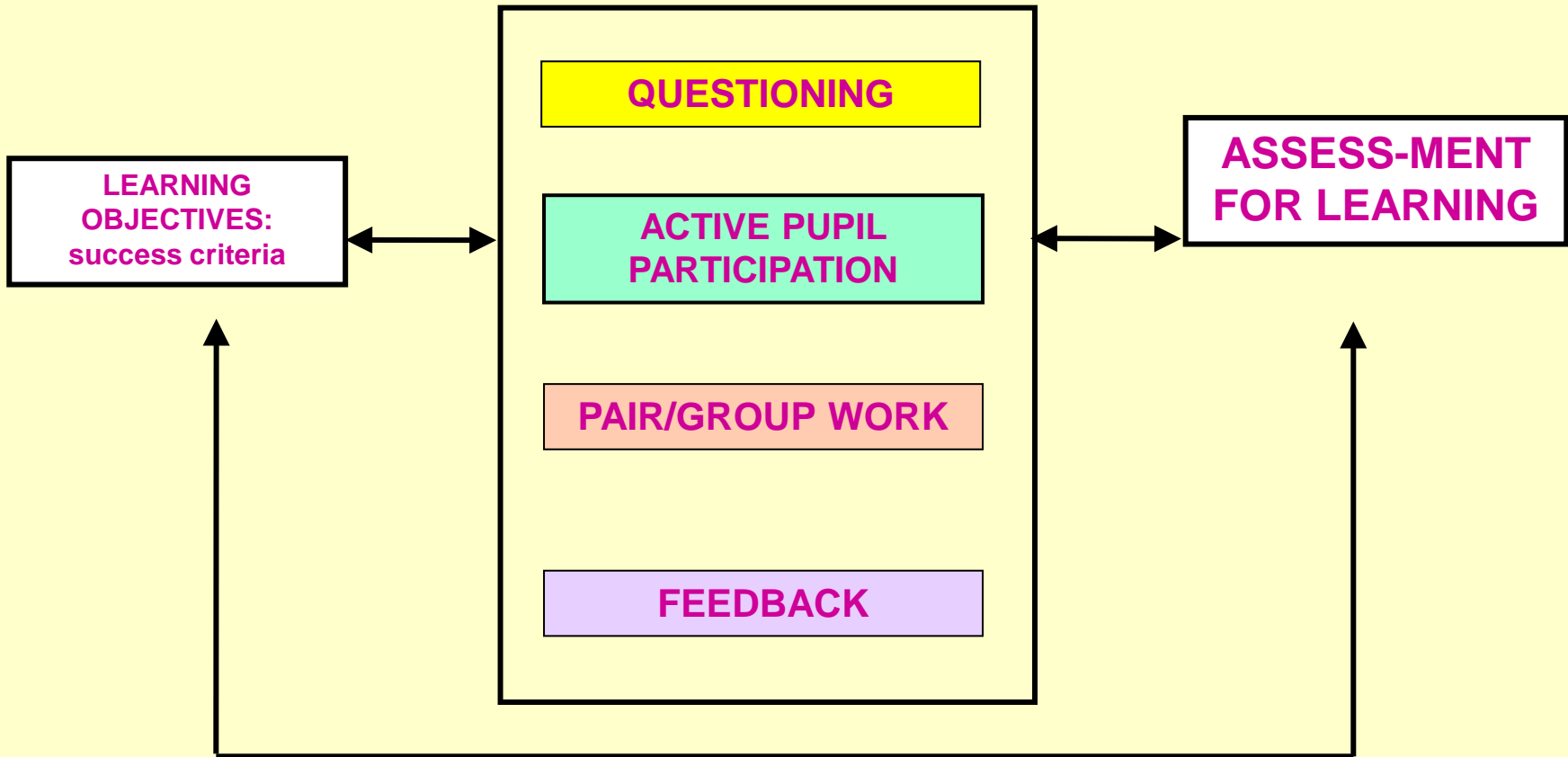
In the 6 years since SCT was introduced there has been considerable progress. Extended dialogue and cooperative learning through pair and group work are now a regular feature of most lessons. More work is still needed in the areas of feedback and assessment for learning. SRL is thus a component part of SCT.
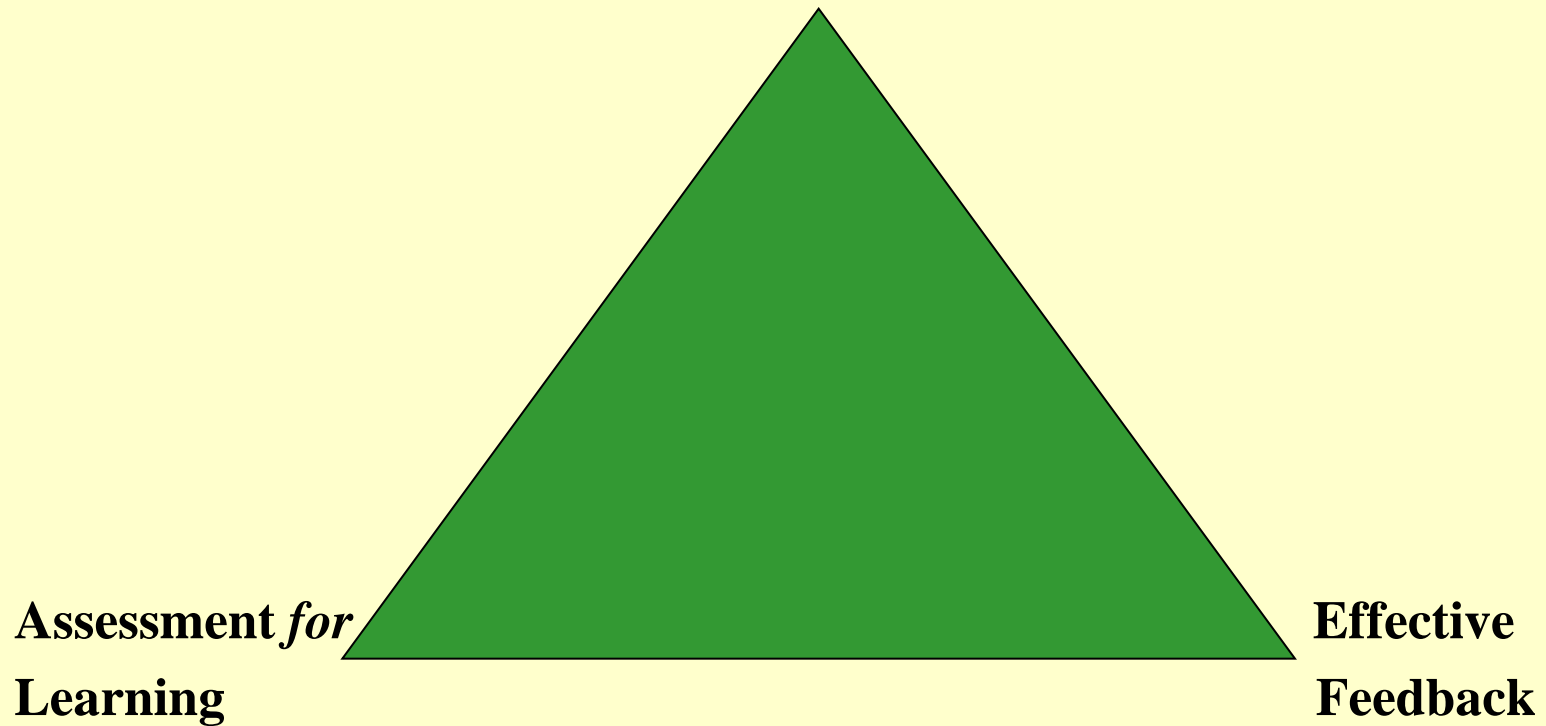
Six Principles

CURRICULUM   **PEDAGOGY**   **ASSESSMENT**

LEARNING OBJECTIVES: success criteria

QUESTIONING

ACTIVE PUPIL PARTICIPATION

PAIR/GROUP WORK

FEEDBACK

ASSESS-MENT FOR LEARNING

3 key linking elements of SRL

Converting objectives into success criteria

Assessment *for* Learning

Effective Feedback

Social and Emotional Factors

AfL and similar approaches to learning require high levels of *intrinsic* motivation and what Deci and Ryan (1985) call *honest evaluations* whereby pupils report accurately as to what they can and cannot understand.

At the moment many teachers when confronted with suggestions for using various forms of pupil self-assessment such as traffic lights, ratings etc say that pupils would all give positive evaluations for fear of losing face in front of their peers.

Deci & Ryan argue that the intrinsic motivation required to make this approach work is only possible in *non-controlling* environments.

A positive social Climate

Deci and Ryan's non- controlling classroom is one where:

➢ Classroom rules are formulated by the teacher and the pupils together.

➢ There is discussion as to appropriate consequences for breaking these rules. Here the use of strategies such as *circle time*, end of lesson debriefing is important.

➢ Rewards and sanctions (e.g. stars for good behaviour, detention for bad) are avoided. If a sanction is required it should be something positive (e.g. giving up free time to help a younger pupil learn).

➢ The whole class is never punished for the actions of certain individual/s whom the teacher can't identify.

Some References

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