

## My Thinking and Problem Solving



## **Equals SLD (Semi-Formal) Curriculum**

### ***SoW: My Thinking and Problem Solving***

### **Basic Principles**

***'We'll never do something for a child if he/she has a chance of doing it for him/herself.' \*\****

(with thanks to Pear Tree School, Lancashire)

**The Pedagogy of Thinking and Problem Solving for those with severe learning difficulties.** In a conventional mainstream curriculum model, cognition (thinking and understanding) problem solving (acting upon understanding) and even metacognition (thinking about thinking) would be placed within the general framework and context of everyday lessons. In good and outstanding schools, much thought is put into strategies such as Bloom's Taxonomy (of learning objectives) (Bloom et al, 1956) so that the pupil is constantly steered towards deep and meaningful learning, as opposed to a shallow and superficial memory for facts.

The purpose of questioning is to extend learning from

- (i) memory to
- (ii) understanding to
- (iii) application, and then on to
- (iv) the higher orders of learning which are to be found in the abilities to analyse, evaluate and create.

For those with SLD we are however often stuck within memory, since (i) it may take many hundreds of opportunities to repeat a skill before it is lodged in the long term memory, (ii) those with SLD tend to find generalisation extremely difficult (Lacey, 2009) and (iii) we often get enticed by the need to provide routine, order, certainty and structure for our learners. SLD schools – and this is especially so where there may be a number of learners with a dual diagnosis of SLD/ASD who are usually excellent at, and respond positively to, routine, order, certainty and structure.

There are whole pedagogies based upon these principles (TEACCH and ABA for example) and there is no doubt that routines are a major opportunity for learning, especially for those who are functioning at the earliest stages of intellectual development. It is tempting, because it can be thought of as being less stressful and therefore better for the pupil, to maintain routine, order, certainty and structure to such a degree that learners become reliant upon them and experience considerable distress when such certainties are taken away. This is perfectly understandable – if you're not in control of your own life, as so many with learning difficulties are not, there is some security in knowing that someone else is. That means that routine, order, certainty and structure become essentials, not options.

By accepting this, however, we may well be restricting opportunities for learning, because we are not expecting our pupils to think and to problem solve. When faced with problems and difficulties, as inevitably they will be, pupils who have learned to rely on routine, order, certainty and structure will have no skills or strategies to fall back on. In these circumstances it may well be that their distress will be even greater. In preparing SLD learners for life beyond school and greater opportunities for independence it is vital that they are able to function in a range of situations and contexts. In order to be able to do this they will need to be able to apply knowledge, skills and understanding to circumstances that may be unusual, unexpected and unpredictable. What will they do if.....? **This SoW proposes that teaching children with SLD to think and problem solve as independently as they possibly can is not an option, it is a necessity.**

Penny Lacey was at the forefront of a growing campaign to bring thinking and problem solving back into the heart of the SLD Curriculum. Here is an extended quote that gets right to the heart of the issue.

*Children's (with severe learning difficulties) likely lack of interest in the world generally can be a challenge but providing exciting activities can help to provoke interest. We need to introduce children to different kinds of animals, let them experience the weather first hand, work with artists, make films, visit unusual places, people and things and experience a range of physical movements from abseiling to horse-riding to sailing to ice skating. Just erecting a tent and eating homemade popcorn in it can provoke many thinking skills. There is a big wide world to be discovered beyond the routine, although we must be careful not to provide a catalogue of unconnected experiences. The connection is **thinking** and **problem solving** and we need to make that very explicit or the children may not notice. (Lacey, 2009 pp 22, original emphasis).*

**Problem solving** basically involves four key mental processes:

1. Perception
2. Thinking
3. Action
4. Evaluation

**Perception** involves:

- (i) recognising and identifying problems
- (ii) recognising opportunities.

**Thinking** involves:

- (i) breaking down a problem into elements
- (ii) thinking through the relevant features of the problem
- (iii) planning ways to solve the problem.

**Action** involves:

Remembering how to solve a problem and bringing this memory to the fore.

**Evaluation** involves:

- (i) evaluating how a plan worked
- (ii) recognising when existing plans and strategies need changing.

Intrinsic within this is the recognition that one needs to improve one's own learning performance through:

- recognising that problems are usually opportunities to do something different;
- recognising why a task is carried out, what it involves, when it is complete and by extension, when it is incomplete;
- communicating preference and choice;
- recognising personal strengths and weaknesses;
- learning from mistakes and setting targets;
- developing attention and concentration;
- developing self-confidence in one's ability to solve problems and face difficulties.

**The Dangers of Learned Helplessness.** Teachers will be familiar with the concept of the 'zone of proximal development'. This can be simply described as the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers (Vygotsky, 1978). The adult ladders and scaffolds – lays down supports for the learner – which are gradually taken away as the learner 'learns' to be more independent and solve problems on their own. The difficulty for those with severe learning difficulties is, unfortunately, that we often forget to take these props away.

This is sometimes about the need to control and protect learners – occasionally perhaps to stop them making a mess which we have then got to clear up – and sometimes because we do not want learners to fail or make mistakes or take risks, or because we believe that learners are unable to do things on their own; it is perhaps 'easier' (for us) if we do it ourselves and we've probably all been there with children of our own! Even if we can overcome this tendency and all good teachers of children with SLD should strive to do this, one of the key reasons for learned helplessness continuing is time. Or perhaps, to give it proper emphasis, this should be written as TIME.

There is a tendency to cram all the elements of a prescribed curriculum into a weekly schedule or timetable to ensure curriculum coverage (breadth and balance). The adoption of a subject based curriculum model has perhaps resulted in a tendency towards teaching facts within prescriptive lessons, rather than the ability to think and act independently. As a consequence, we may find ourselves rushing to finish one lesson so that the next lesson can have its allotted time. For those with severe learning difficulties, this can militate against learning, not only in terms of personalised learning opportunities, but also opportunities to problem solve and attain deep, rather than surface, learning. What might be needed for the majority of those with severe learning difficulties is a recognition of the importance of being exposed to problems, which will take time to resolve and may be uncertain in their outcomes. For learners with SLD, deep learning takes time, and often a considerable amount of time.

In practical terms, **WE** (staff, parents, carers) need to **THINK** about

- how often and how easily we do things for our learners
- how often and how easily we give them cues
- how much they expect us to help them
- whether this constitutes a 'healthy attachment'?

**Teaching Thinking and Problem Solving will not lend itself to SMART or other pre-determined targets. Thinking and Problem Solving is a process, with different possibilities and solutions for each problem and each individual learner. It is neither**

**possible nor desirable for staff to decide that one solution is better or more desirable than another because reflection on this is an essential part of the long term process.**

### **Key Considerations within the Thinking and Problem Solving SoW**

**Whole school philosophy.** It is highly desirable for the whole school ‘to buy into’ the philosophy of thinking and problem solving because there will be constant consequences of adopting this approach. For instance, if you as a teacher are waiting for a learner to recognise he has no cutlery to eat his lunch, it may be a long time before he gets round to eating his lunch. The hall cannot now be cleaned; he may be late to his next lesson; there is then apparently no learning going on when the head teacher comes into the hall to show an important guest around the school; the member of staff does not get their lunch on time.

**Motivation.** Do not expect the learner to solve a problem in an activity if they’re not particularly (or at all) interested in it. You can still do the activity but you cannot expect it to be a problem solving activity for that individual learner. If for example, you hide all the pens (sabotage) so that the learner cannot write or draw you must KNOW that the learner is highly motivated to write or draw at that particular time.

**Modelling.** When learners are first coming to terms with having to solve problems, and maybe for some time after that for learners who are consistently working at the lower ends of the P scales (say P4 and 5) it may well be that much problem solving will be worked on through staff modelling the experience. It is here that Penny Lacey’s insistence that ‘*we need to make (the process of thinking and problem solving) very explicit or the children may not notice*’ comes to the fore. We mustn’t just solve the problem, but rather, make it very obvious that there is a problem and go through the process of thinking. ‘*Good heavens! There are no biscuits in the biscuit tin! What can we do?*’

The second part of modelling – solving the problem – also needs some amateur dramatics in the search for biscuits or for knives and forks or for art materials and of course **finding them in the most expected place**, the place where they are always kept. This now gives the learner a base for solving the problem independently when the problem reappears.

Figure 1 below, shows the process of modelling, repetition and sabotage using the Routine, Order, Certainty and Structure (ROCS) approach.

**Autistic Spectrum Disorders.** Simply because a learner has autism does not mean that s/he cannot think and problem solve, and we must not allow it to be seen as a reason for opting out. We must regard the learner’s autism as an additional difficulty which may require

some adaptation and differentiation, but the key consideration will still be the learner’s level of intellectual ability and the 5 Tiered Approach outlined below is still appropriate. As always with autism, it is probably always best to consult widely using the expertise available in the school, especially the Speech and Language Therapist (SaLT) for communication issues and the Occupational Therapist (OT) for sensory issues.

Similarly, physical disabilities and/or communication difficulties DO NOT RULE OUT learners from thinking, but adaptations and differentiation will probably be needed. Consult widely with the expertise available in your school, especially with the SaLT, OT and Physiotherapists.

**Taking a holistic approach to learning.** Thinking and Problem Solving is not an isolated scheme of work that should be taught discretely in its allotted daily or weekly time slot. There are opportunities for thinking and problem solving in everything we do and therefore everything we do should be regarded as an opportunity for thinking and problem solving.

**Tiered approach.** Thinking and Problem Solving, and indeed what we might expect as teachers, is probably going to be a little different according to the ability of the learner to comprehend and work through the different elements of the difficulty they are faced with.

We are therefore suggesting a five-tiered (colour coded) approach which will be broadly appropriate for learners working at the academic levels of between P4 to Level 2 of the England and Wales’ National Curriculum.

### **THE EQUALS FIVE TIERED APPROACH to My Thinking and Problem Solving**

**TIER 1      Memory building**

Introduction of the task; repetition (as many times as required by the individual learner) of the task; understanding what is required to complete the task. The learner might not be introduced to the problem until you are reasonably sure that they can complete the task without support or, if physical support is needed because of physical disability, can recognise that ‘something is wrong’.

**TIER 2      Sabotage!! Recognition of a problem**

Recognising that something is different or that a required element of the task is not to hand; recognition that asking for help from a member of staff is a minimum requirement for solving the problem.

**TIER 3 Independent solutions**

Recognition of what the problem is and that the problem can be resolved without asking a member of staff for help; evaluating this one solution; questioning whether the same problem can be avoided in the future.

**TIER 4 Generalisation**

Recognition that a solution to a similar but unrelated problem can be adapted; recognition that there may be several possible solutions to the problem, including asking peers for help; evaluating whether the solution chosen was the best one.

**TIER 5 Self-belief and confidence**

Being secure in their choice of solution even when challenged by a member of staff or someone the learner considers to be in authority; recognising that there might be no solution that is immediately available and being secure in this choice when challenged. These might be considered to be higher order problem solving skills but they are essential in the long term to truly enable learners to be independent.

Let us take, as an example, the case of the ‘no biscuits in the biscuit tin’ problem. This has been chosen because we might be reasonably assured that recognising and solving the problem of ‘no biscuits in the biscuit tin’ is quite motivating for most people. Clearly in a ‘healthy eating’ environment, biscuits might not be appropriate, but any substitute ‘problem’ must be sufficiently motivating to the learner/all learners.

**TIER 1. Memory building** involves introduction of the task, namely to be involved in getting biscuits from the cupboard to put in the biscuit tin at the beginning of the day in preparation for snack time. The learner has to be taught a potential solution to the problem before the problem occurs.

**TIER 2. Sabotage and recognition of a problem** sees the biscuit tin handed out ready for the learners to open at snack time, but no biscuits are in the tin. A variation of this for more able learners or a mixed ability group might be for two biscuits to be in the tin, when there are 6 learners. This is especially the case when one or two learners recognise the problem quickly and the other learners need practice; that is, there are no biscuits in the tin by the time it gets to their turn. The minimum requirement here is for learners to recognise that something is missing - thus there is a problem, and to do something about it. This might be (as a minimum) to indicate that there are no biscuits, or possibly too few to go round, and to ask for help from a member of staff.

**TIER 3. Independent solutions** sees the problem recognised, but the member of staff unable to give help because they don't know the answer. You are looking for learners to go to the cupboard to get the biscuits without being told to do so. As this problem might now occur regularly you are also looking for some discussion around how to plan ahead to avoid the problem in the future; that is for one or more of your learners to put biscuits in the tin at the beginning of the day without being told to do so, and perhaps for other learners to check that this task has been completed, again, without being told to do so. More able learners may be in a position to discuss the idea of sharing/dividing as a solution to the problem rather than finding more biscuits or if there are no more biscuits.

**TIER 4. Generalisation** might now see an extension of the problem. For example, there are no biscuits in the tin and no biscuits in the cupboard. At this stage of generalisation you would expect pupils to make connections where something is completely missing or in very limited supply, that is, for at least one learner to look for biscuits in another cupboard.

There are probably two levels of generalisation that we could look for; that is:

- (i) generalising a particular problem, for example, in terms of biscuits and cupboards – if they're not in this one, they might be in another one and
- (ii) generalising to looking for anything that is not in its usual place. The latter generalisation skill is of course to be aimed for, but it may be that this is acquired over time through the practicing of LOTS of particular generalisations. In the examples below, we have therefore confined ourselves to exemplifying particular generalisations, but this should not stop you looking for the wider generalising and praising the heavens if and when this occurs!

**TIER 5. Self-belief and confidence** sees the learner challenged when a solution is found so, for example, *Are you sure these are the class' biscuits?* when a packet is found in another cupboard and *how do you know?* Or recognising, that having searched every cupboard, there are no biscuits and having the confidence to be sure when challenged. **It is important to note** that this particular step is about self-esteem, self-belief and self-confidence, not about being right. That is, for learners with SLD it might be essential to develop confidence in their own decision making even when they are wrong! This might therefore mean accepting the *'I am right'* statement and perhaps later, and as subtly as you can, indicating that it might not have been the right answer. In the 'no biscuits' scenario for example, staff might know that the learner has not conducted a thorough enough search of the other cupboards, but accept that the learner believes there are no biscuits to be found. Later, someone might stumble upon the biscuits and gently, point this out to the learner, with the expectation that self-confidence has not been dented, but that the learner might carry out a better search next time.

There are bound to be times when potential danger or potential damage to equipment might occur if learners were allowed to make wrong decisions, in the kitchen for example, or perhaps when charging phones and tablets. Clearly this is a judgment call because we are

NOT suggesting that you allow something to happen that might be unsafe or will cost considerable amounts of money to repair or replace.

Getting to this higher stage will be extremely difficult for most learners with SLD, though that doesn't mean that we shouldn't aim high. Nonetheless, **IT IS NOT EXPECTED** that the learner will be challenged every time they make a good decision. Self-confidence and self-belief are fragile things and need to be built up slowly and securely; we break them at our peril!

**For this reason we have not put Tier 5 into every scenario. It is not required that learners are constantly challenged and staff should think very carefully before doing so.**

**The desirability of failure.** It is vital that staff accept that having a try at a solution, even when the 'try' is wrong and ends in failure, is **MUCH** better than (i) staff doing it (ii) staff giving obvious clues ('have you looked properly?' or 'have you looked in this cupboard?') (iii) not trying to solve the problem at all. **Pupils should always be praised for their efforts.**

**Questioning.** Following on from this five tiered approach we might look at the form of questioning of learners in order to elicit a response to a problem presented. So for example (and we do not want or mean to be prescriptive about this since questioning should be adapted for individual learners):

**For learners at P4-5** Perhaps an initial exclamation of surprise with appropriately matching facial expression. Perhaps a standard question whenever a problem is posed of "*What do you need now?*" Allow processing time for the question to sink in. Repeat the question word for word. Perhaps eventually ask "*Do you need help?*", and look for the learner to actually ask for help in any way that they can. We can expect learners at this level to achieve at least up to Tier 2.

**For learners at P5-7** Supplementary questions such as "*What's missing?*" Introduce phrases such as "*What's wrong?*" "*What's the problem?*" Maybe go through a check list for known and repeated questions in any activity that requires equipment, such as art, cooking, PE, swimming etc. We can expect learners at this level to achieve at least up to Tier 3 and quite possibly Tier 4.

**For learners at P7-L2** Perhaps use phrases like "*What's wrong?*" "*What's the problem?*" "*What is not there?*" "*What can you do now?*" "*What do you need to do now?*" It could even extend to "*What could you have done?*" (to prevent the problem happening in the first place). Generally at this stage, there is a need for greater sophistication of supplementary questions and especially concentrating on open ended questions, ensuring that members of staff do not provide answers. We can expect learners at this level to achieve at least up to Tier 4 and possibly Tier 5.

**There is a recognition that not all learners will get to level three and very few learners will get to level 5.**

**Staff leading and/or directing.** In a word **DON'T!** Appropriate encouragement and praise may need to be given to aid the learning process and thought development but learners will not try and solve the problem themselves or think for themselves if we continue to do it for them. **IT IS ESSENTIAL** that all staff set the solution to the problem before the problem arises as in Tier 1, so that learners should not need prompting or suggestions about solutions to the problem.

If learners do not attempt to solve the problem it probably means that:

- a) we haven't given them enough thinking time
- b) they're not motivated to solve the problem (and therefore it is the wrong problem to give them to solve)
- c) they haven't yet learned the solution, so more practice is needed. Furthermore, all staff need to offer clear and unambiguous clues to all learners that they **do not know** the solution.

It is probably true to say that for the average learner with SLD in the average school (whether special or mainstream) members of staff and indeed all adults are looked upon as people who make no mistakes, know everything about everything, who always act appropriately and who always make mature, rational and correct decisions! We **MUST** make sure that all learners are under no illusions that these statements are not true!

**Generalisation.** As a rule, we have taken the generalising tier to be an extension of the same problem rather than a completely different problem with the same base. That is, the problem of losing something has the same base irrespective of the thing lost. Taking our standard problem of no biscuits in the biscuit tin, leads to looking for biscuits elsewhere, finding them in a particular cupboard and then generalising the problem by later finding that they have 'disappeared' from that cupboard too. But, since the concept of generalisation is usually associated with 'doing' (whatever the doing is) in other situations and not just the one we are currently experiencing, it could be argued that the experience and learning are not being truly generalised.

This is tricky because there is considerable truth in this argument, but applying it to the learning of those with SLD is likely to be a step too far. There are after all, only so many problems since so many have a common base. *'How many problems are there?'* is probably related to *'How many jokes are there?'* Comedians say not many (we've heard the number 8 mentioned but that's probably a joke!) the point being that all jokes (and problems) have a common base. Generalisation in this context can therefore be best exemplified by a similar problem. This then recognises that learners may be able to transpose this learning to other problems with the same base, but equally, they may not.

**Expecting learners to ask permission before.....** This is a difficult area and brings out a dilemma between wanting and needing to keep some order in the classroom, along with a need to teach politeness and basic good manners **versus** wanting our learners to think (and do) for themselves without constant referral back to a higher order (staff and 'adults' generally). It is a balance which will vary from learner to learner and classroom to classroom, but might be affected by the risk involved in the learner 'doing it for themselves' and the age of the learner. Certainly by KS4, learners should be in the advanced stages of preparing for adulthood and school staff will need to think very carefully about continuing to need learners to ask (or gain) permission before they do something independently.

Two further points here are that firstly, **WE MUST NOT UNDERESTIMATE** how much the vast majority of learners with SLD look for approval from 'adults' and how easily they defer to 'adults', **EVEN WHEN** the learners with SLD are adults themselves. We must be prepared to break this cycle if learners are to achieve full independence; that is, be the best they can be and do the best they can do. Secondly, we must accept that learners will make mistakes, get things wrong, make dubious decisions and make (perhaps deliberately) the 'wrong' decisions – as in for example, *'I know it's unhealthy to eat three slices of this chocolate cake, but I'm going to do it anyway'*. All schools, teachers, class teams, parents and carers, must think very carefully about getting the balance right, remembering that people with learning difficulties can be relatively easy to dominate, and we do this at our peril!

**Contextualising learning.** Thinking and problem solving opportunities occur all of the time in every situation and we must be alive to their possibilities. They will probably work best when contextualised because then learners will have at least one strategy for resolving a real time problem. The key thing here is not to do things for learners, but to expect them to do things for themselves. Don't get cutlery out before lunch; don't pack their swimming costume and towel; don't put the chairs out before snack time; don't switch the computer on; don't put the musical instruments out. The list is endless and we must ground learners in the day to day reality of thinking and solving problems as a matter of course.

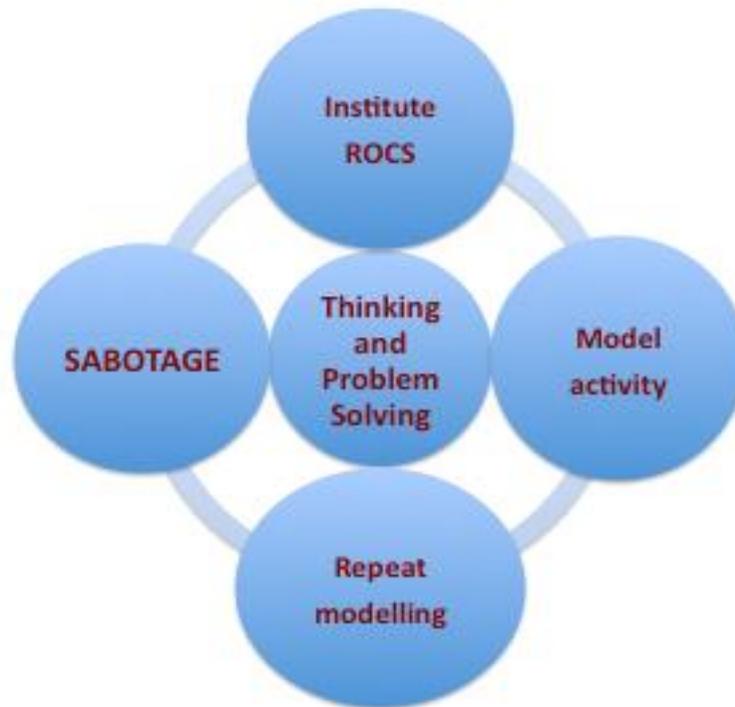
**Sabotage and the ROCS approach.** Figure 1 below shows a modelling, repetition and sabotage link to enable thinking and problem solving. The principle here is that learners will have to be shown how to solve a problem by providing in the first instance, Routine, Order, Certainty and Structure (ROCS). Learners are taught a set way of doing things, and learning is built upon these ROCS because it is initially modelled and then practiced many times through repetition and more repetition. Sabotage (in order to present a problem solving opportunity) only takes place once you are pretty certain that the learner knows the task well.

Take for example, the task of finding their own equipment for a particular activity such as making a slice of toast (see Food Technology in the Independence SoW). Learners will be taught where to look for the spreading knife (amongst other things) which will always be where it was the last time the learner made toast. When you are sure the learner understands the task and knows where the knife is,

move the knives to a different place. The learner must believe that **no-one** knows where the knives are and must therefore solve the problem of where to get one from. Once you have sabotaged once, go back to the ROCS of learning and sabotage again a few weeks later, putting the knives in an entirely different place this time. Continue with the process of ROCS and then sabotage every so often just to keep learners on their toes.

Sabotage and the ROCS approach is an excellent way to help generalise thinking and problem solving because the general principle can be applied to almost any routine activity. Examples of sabotage might be for example knocking things over, dropping paint on the floor, forgetting to get the football out when playing football, not charging the i-pad the night before. The list is, quite literally, endless!

**Figure 1. Modelling, repetition and sabotage using the ROCS approach**



**Order of teaching.** The learning intentions and the teaching activities listed below are not developmental. That is, teachers should not start at the first one and then teach the second, third, etc. Nor are they meant to be taught according to the age of the learner(s) involved, since this will depend very much on the class grouping and how adept each learner is at Thinking and Problem Solving, whatever their age. Rather, these are ideas which will form the basis for a Thinking and Problem Solving Curriculum which will run through every single element of learning and all parts of the rest of the curriculum.

### References

Bloom B S, Engelhart M D, Furst E J, Hill W H and Krathwohl D R (1956) **Taxonomy of educational objectives: the classification of educational goals: Handbook 1: Cognitive Domain.** New York. Longmans.

Lacey P (2009) **Teaching thinking in SLD schools.** The SLD Experience. 54: 19-24.

### Recommended reading

**\*\* Crombie R, Sullivan L, Walker K and Warnock R (2014) Unconscious and unnoticed professional practice within an outstanding school for children and young people with complex learning difficulties and disabilities.** Support for Learning . 29 (1) 7-23

**Equals wishes to acknowledge the considerable debt owed to the following teachers and schools in writing the *My Thinking and Problem Solving* Scheme of Work and especially to Wilson Stuart School in Birmingham for hosting the SoW Conference.**

Simone Parry  
Graham Hudson  
Faith Gallon  
Jenny Price  
Sarah Youngson  
Sue Troman

Two Rivers (High) School  
Two Rivers (High) School  
Dame Ellen Pinsent School  
Mary Elliot School  
Fox Hollies School  
The Brier School

Collette Harding  
Michelle Roberts  
Jacqui Foulgar  
Mark Williams  
Rachel Bradley  
Joy Dawson

Two Rivers (Primary) School  
Two Rivers (Primary) School  
Whitewick Hall School  
Fox Hollies School  
Baskerville School  
Wilson Stuart School

**The Equals *My Thinking and Problem Solving* Scheme of Work has been edited by Peter Imray, Mandy Hadfield and Karen Aird.**

The following SoW has been written on the basis of six repeatable and variable problems that have an infinite number of variations depending on the motivating factors of individual learners. We would strongly advise that *My Thinking and Problem Solving* is not taught discretely, but as opportunity and motivation (to think and solve the problem) arise. The further 8 examples are therefore taken from situations that might occur in each of the other 8 Semi-Formal (SLD) SoW that Equals will be producing over the next two years or so.

**Never knowingly do something for a learner when you think they might be able to do it for themselves.**

Learning Intentions	Teaching Activities	General Points to Note	Tier Points to Note
<p><b>To gain access to my favourite..... toy, snack, drink, i-pad, piece of flappy string, etc.</b></p> <p><b>To acknowledge that I want/need equipment</b></p> <p><b>To get the resources and equipment I want/need</b></p> <p><b>To communicate a want/need</b></p>	<p align="center"><b>Six general and repeatable problems</b></p> <p><b>TIER 1. Memory Building.</b> Introduction of the task, namely to be involved in getting my favourite toy, snack, drink, i-pad, piece of flappy string, etc from wherever it is regularly kept at a regular time(s) of the day. This might be prompted by a visual timetable or some other regular indication. The learner may need physical or verbal prompting to get the item, but must be involved in the process many, many times.</p> <p>The item <b>MUST</b> be independently accessible. If it cannot be accessible (because for example, the i-pads need to be locked away for security reasons) it is not an appropriate item to use.</p> <p><b>TIER 2. Sabotage and recognition of a problem</b> sees ‘my time’ announced without any prompt to get the item concerned. The minimum required here is for learners to recognise that ‘my favourite....’ is missing, that is, that there is a problem and they need to do something about it. This might be (as a minimum) to indicate that s/he does not have ‘her/his favourite.....’ and to ask for help from a member of staff. In this case the learner might be assisted to</p>	<p>You need to know what your pupil is motivated by and use this to support solving the problem This may be very different for different individuals.</p> <p>Begin with what a pupil wants rather than something they need. Recognising a need is a higher functioning skill</p>	<p>The accessibility exception might be for those who are not physically able to take themselves to the place, open drawers, open cupboards, in which case the school should look to putting the item in a place that is accessible or adapting the physical environment BEFORE relying</p>

	<p>search for her/his favourite..... We can see that the whole class having 'me time' at the same time can be useful in providing modelling opportunities to the less able learners. Staff must recognise that learners may solve this problem by doing something else or by doing nothing! Whatever happens, staff should avoid prompting!</p> <p><b>TIER 3. Independent solutions</b> sees the problem recognised, but the member of staff unable to give help because they don't know the answer. You are looking for learners to go to the cupboard, drawer, toy tray to get 'my favourite....' without being told to do so.</p> <p><b>TIER 4. Generalisation</b> might now see an extension of the problem. For example, 'my favourite.....' is not in its usual place. A potential solution should not need to be taught because you are looking for generalisation skills, that is, for the learner to look in another cupboard.</p>		<p>on teaching the learner to ask for help.</p> <p>Not finding my favourite toy, snack, drink, i-pad, piece of flappy string etc might well have unintended consequences for the class staff which has to be prepared for. Class staff will know their learners best and should have strategies in place. It is however <b>vital</b> that the missing item is not magically found in order to avoid a potential or actual melt-down.</p>
--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<p><b>To find my lost..... lunch box, hat, headphones, wellington boots, etc.</b></p>	<p><b>TIER 1. Memory Building.</b> Introduction of the task, namely to be involved in looking for items that the learner needs when they are not in their regularly kept spot. It is advisable that there are a limited number of places to be looked in before the item is found, and that it is always found in this first stage. It is also advisable that items are 'lost' occasionally, rather than every day and this therefore becomes a learning intention which may take some time.</p> <p>This particular memory building will imply that the learner has already gone through the previous learning intention of 'gaining access to my favourite .....' and is now used to the concept of looking for something. Again, the item <b>MUST</b> be independently accessible. If it cannot be accessible (because for example, the i-pads need to be locked away for security reasons) it is not an appropriate item to use.</p> <p><b>TIER 2. Sabotage and recognition of a problem</b> sees the regular limited places where the learner will look as revealing no lunch box, hat, headphones, wellington boots, or there may be some boots or hats, but not enough or they are the wrong sizes.</p> <p>The minimum requirement here is for learners to recognise that the item has not turned up in its usual alternative spot, that is, that there is a problem, and to do something about it. This might be (as a minimum) to indicate that s/he cannot find the item and to ask for help from a member of staff, in which case the learner might be assisted to search for the item in question.</p> <p>We can see that if the whole class have wellington boots to search for at the same time, this can be useful in providing modelling opportunities to the less able learners. Staff must recognise that</p>		<p>You will note that the learner has now moved from 'wanting' to find to 'needing' to find. That is, there is now a connection that has to be established between the item and being able to do something because one has the item, such as eating my lunch, or indeed, not being able to do something because one doesn't have the item, such as, going out to play in the rain with no wellington boots.</p>
---------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

	<p>learners may solve this problem by doing nothing, for example, not listening to music or not going out in the rain. Staff might therefore have to work on the motivational angle, but should avoid instructing and prompting.</p> <p><b>TIER 3. Independent solutions</b> sees the problem recognised, but the member of staff unable to give help because they don't know the answer. You are looking for learners to go to the cupboard, drawer, toy tray, fridge to find the item they need without being told to do so. The learner may need to be prompted to remember where they last had the item, for example, <i>'I last had my headphones in the hall'</i>.</p> <p>Alternatively, the learner could find the two wellington boots in different places.</p> <p><b>TIER 4. Generalisation</b> sees an extension of the problem. For example, the item cannot be found in the classroom. A potential solution would be for the learner to consider remembering when the learner last had the item and check there.</p> <p>The learner may also consider borrowing someone else's wellington boots which will of course lead to further thinking and problem solving opportunities such as <i>'Do I have permission?' 'How do I get permission?' 'Do they fit me?'</i></p> <p>The learner may have to consider what to do if the item is never found, though we are not suggesting that you permanently lose things deliberately! That is, we would imagine that although these things will inevitably happen naturally, this should not stop staff discussing with the learner what the options might be if it is feared that something is irretrievably lost.</p>		
--	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	--

	<p><b>TIER 5. Self-belief and confidence</b> sees the learner challenged when a solution is found, so for example <i>'Are you sure this is your lunch box, wellington boots etc?'</i> when it is found somewhere out of the ordinary and <i>'How do you know?'</i> Or recognising that having searched every cupboard for the item, it cannot be found and having the confidence to be sure when challenged. <b>It is important to note</b> that this particular step is about self-esteem and self-confidence, not about being right.</p>		
<p><b>Recognising that the thing that I want or need is not working, is broken, does not fit etc.</b></p>	<p><b>TIER 1. Memory building</b> involves introduction of the task, namely to be involved in plugging in, checking leads, switching on electrical equipment.</p> <p>On a more elementary level, learners might be regularly presented with a pencil that needs sharpening or a pen that's run out of ink.</p> <p>Alternatively, coats, hats, boots etc that now no longer fit the learner are now 'accidentally' re-introduced, with the learner prompted to note the difference and look for the item that does fit. Staff may also prompt the comment that <i>'we must really throw this away!'</i></p> <p>The learner has to be taught a potential solution to the problem before the problem occurs.</p> <p><b>TIER 2. Sabotage and recognition of a problem</b> sees the switch turned off, even though the learner might have just switched it on, or it is switched off while the learner is using the computer, or boiling a kettle, or making toast.</p> <p>The minimum required here is for learners to recognise that something is wrong, that is, that there is a problem, and to do</p>	<p>This is a good reason to not throw away materials that no longer work and clothes that are torn, damaged or too small!</p>	

	<p>something about it. This might be (as a minimum) to indicate that the computer is down, the toast is not toasting, the kettle not boiling and to ask for help from a member of staff, in which case the learner might be assisted to solve the problem.</p> <p><b>TIER 3. Independent solutions</b> sees the problem recognised, but the member of staff unable to give help because they don't know the answer. In this case, you might want to see the learner checking the switch, plug and leads or going to the cupboard for a new pen or sharpening a pencil without being prompted.</p> <p><b>TIER 4. Generalisation</b> might now see an extension of the problem. For example, you might be looking for some discussion around how to plan ahead to avoid the problem in the first place; that is for one or more of your learners to check the i-pads and lap-tops are fully charged, without being told to do so, and perhaps for other learners to check that this task has been completed, again, without being told to do so.</p> <p>This might also include practice at what to do if something is actually broken.</p> <p><b>TIER 5. Self-belief and confidence</b> sees the learner challenged when a solution is found, so for example <i>Are you sure this is how you charge the lap-top</i> and <i>How do you know?</i> Or recognising that having charged the lap-top that something else (perhaps outside of the control of the learner) is wrong, and that the problem is not immediately soluble, and having the confidence to be sure when challenged. <b>It is important to note</b> that this particular step is about self-esteem and self-confidence, not about being right.</p>		
--	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	--

<p><b>Recognising that in order to play a game of .....we need.....</b></p>	<p><b>TIER 1. Memory building</b> involves introduction of the task, namely to be involved in getting all of the resources for the game, in preparation for playing the game. The learner has to be taught a potential solution to the problem before the problem occurs.</p> <p><b>TIER 2. Sabotage and recognition of a problem</b> sees one or more of the resources go missing, that is, they are not where they should be. It may be the case that one or two learners will recognise the problem quickly and the other learners need practice; for example, there are no chairs for Musical Chairs. This is to be expected, but the modelling that will take place by the more able learners could well filter down if the problem is presented often enough. The minimum requirement here is for learners to recognise that something is missing, that is, that there is a problem, and to do something about it. This might be (as a minimum) to indicate that there are no chairs and to ask for help from a member of staff, in which case the learner might be assisted to search for the resources in obvious places.</p> <p><b>TIER 3. Independent solutions</b> sees the problem recognised, but the member of staff unable to give help because they don't know the answer. You are looking for learners to go to another (unused) room to get the chairs without being told to do so, or offer another solution such as standing on a mat or sitting on a jumper on the floor. That is, the game becomes Musical Jumpers!</p> <p>As this problem is now going to occur regularly, you are also looking for some discussion around how to plan ahead to avoid the problem in the first place; that is, for one or more of your learners to check that the chairs are where they should be, without being told to do so, or to regularly play Musical Jumpers.</p>	<p>Game playing has been deliberately introduced as a potential <i>My Thinking and Problem Solving</i> exercise because of its natural motivational advantages.</p> <p>When playing games, it may well be that a number of learners will be working collectively to assemble the resources. This therefore involves co-operative thinking and problem solving with learners being encouraged to work together. See below for more discussion on this.</p>	
-----------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

	<p><b>TIER 4. Generalisation</b> might now see an extension of the problem. For example, there are no chairs in the room, none in the other rooms we might be able to look in, and we don't have enough jumpers, A potential solution should not need to be taught because you are looking for generalisation skills, that is, for at least one learner to look further afield, or to use something other than jumpers to sit on.</p>		
<p><b>Recognising that before working on any activity, I need.....</b></p>	<p><b>TIER 1. Memory building</b> involves introduction of the task, namely to be involved in getting all of the individual resources that s/he will need in order to successfully work at the activity. The learner has to be taught a potential solution to the problem before the problem occurs.</p> <p><b>TIER 2. Sabotage and recognition of a problem</b> sees one of the resources go missing. The minimum required here is for learners to recognise that something is missing, that is, that there is a problem, and to do something about it. This might be (as a minimum) to indicate that there are no ..... and to ask for help from a member of staff, in which case the learner might be assisted to search for the item in question.</p> <p><b>TIER 3. Independent solutions</b> sees the problem recognised, but the member of staff unable to give help because they don't know the answer. You are looking for learners to search for the missing resource elsewhere, without being told to do so. As this problem is now going to occur regularly, you are also looking for some discussion around how to plan ahead to avoid the problem in the first place, perhaps by agreeing to share resources with another learner.</p>	<p>This particular learning intention could work as a group exercise, though the default position should always be to expect each individual learner to think and problem solve for themselves as much as they are able.</p>	<p>The list of activities pretty much covers everything that might be considered to be a regular activity that the class might be doing (say) once a week for a half term. You might therefore introduce a visual 'recipe' right at the start, that is, a visual list of resources needed to act as an aide memoir to each of the learners.</p>

	<p><b>TIER 4. Generalisation</b> might now see an extension of the problem. For example, there are no resources to be found in the places they might normally be or there are not enough resources when they are located. A potential solution should not need to be taught because you are looking for generalisation skills, that is, for more than two learners to share resources, or to borrow some resources from another class, or possibly to recognise that the activity cannot be undertaken at this time and to purchase resources before the next lesson.</p>		<p>The generalisation skill of buying missing resources is especially relevant for <i>My Cooking</i> (see the <i>My Independence SoW</i>)</p>
<p><b>Solving problems as a member of a group</b></p>	<p><b>TIER 1. Memory building</b> involves introduction of the task, for example, to be involved in re-organising the classroom when tables and chairs are in the wrong place. This ‘problem’ may need to occur a couple of times a week for a few weeks before staff are sure that co-operative practices are in place. In this scenario group problem solving will be preferable, but not essential since one learner could drag the tables around the room, so staff may need to complain about the noise involved in dragging rather than lifting.</p> <p>Depending on the ability levels in the group, staff may well need to model solutions in the early stages of working on this as a group problem, perhaps gradually increasing the number of learners who are involved in the exercise until it is all learners and no staff, though staff may be ‘advising’.</p> <p><b>TIER 2. Sabotage and recognition of a problem</b> sees the room disorganised but staff say nothing and give no prompts, that is, staff will have to ‘not notice’ the room changes, but carry on as though the room is organised. A variation of this might be for half of the</p>	<p>As a general rule, it is probably best to present learners with problems which they can solve themselves; otherwise how are they individually going to learn?</p>	

	<p>room to be disorganised, especially appropriate when one or two learners get the problem quickly and the other learners need practice; that is, it is their part of the room that is disorganised. Further variations can occur if small cupboards and the teacher’s desk appear in the wrong places, or if some of the furniture is outside in the corridor.</p> <p>The minimum requirement here is for learners to recognise that something is in the wrong place, that is, that there is a problem, and to do something about it. This might be (as a minimum) to indicate that they need help from their peers.</p> <p><b>TIER 3. Independent solutions</b> sees the problem variations recognised without the members of staff giving prompts. You are looking for learners to organise themselves without being told to do so.</p> <p><b>TIER 4. Generalisation</b> might now see an extension of the problem. For example, other rooms are not organised correctly (in the normal manner) such as the hall for assembly.</p> <p><b>TIER 5. Self-belief and confidence</b> sees the learners collectively challenged when a solution is found, so for example ‘<i>Are you sure this is the way the class has to be set up?</i>’ when learners re-organise the room and ‘<i>How do you know?</i>’</p>		<p>It may be that we want learners, especially older learners, to be so confident that they can challenge staff back. <i>‘This is the way it should be, if you want something different, you’ll need to do it yourself!’</i></p> <p><b>This is a very difficult thing to</b></p>
--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

			<b>do politely, and will need considerable practice.</b>
<b>Learning Intentions</b>	<b>Teaching Activities</b>  <b>Eight exemplar problems that relate to the Equals Semi-Formal SoW</b>	<b>General Points to Note</b>	<b>Tier Points to Note</b>
<b>Problem solving within Independence</b>  <b>To collect own lunch utensils</b>	<p><b>TIER 1. Memory building</b> involves introduction of the task, namely to independently collect knife, fork and spoon from a set place in preparation for lunch. The learner has to be taught a potential solution to the problem, possibly using modelling, before the problem occurs.</p> <p><b>TIER 2. Sabotage and recognition of a problem</b> sees no knives, forks or spoons, or the wrong amounts of cutlery so there isn't enough of one or two items, in the normal collection point. The minimum requirement here is for learners to recognise that something is missing, that is, that there is a problem, and to do something about it. This might be (as a minimum) to indicate that there are no knives, forks or spoons and to ask for help from a member of staff, in which case the learner might be assisted to ask the catering staff for a knife, fork or spoon. Learners could also be offered two knives, forks, spoons to see if they are aware that they need different cutlery for different purposes and then prompted as appropriate to work out what is wrong with what they have been given.</p>		

	<p><b>TIER 3. Independent solutions</b> sees the problem recognised, but the member of staff unable to give help because they don't know the answer. You are looking for learners to ask the catering staff without being told to do so. To aid this process, you will need to ensure that the knife tray has a knife symbol attached with Velcro to the tray which non-verbal learners can peel off to take to the catering staff, and that the learner puts the symbol back once the knife has been obtained.</p> <p><b>TIER 4. Generalisation</b> might now see an extension of the problem. For example, there are no plates, no water, no cups etc. A potential solution should not need to be taught because you are looking for generalisation skills, that is, for the learner to indicate the problem to a member of the catering staff.</p>		
<p><b>Problem solving within Communication</b></p> <p><b>Dealing with the fact that my communicative partner is ignoring me</b></p>	<p><b>TIER 1. Memory building</b> involves introduction of the task, namely to learn strategies for dealing patiently but successfully at attracting the attention of a communicative partner. The learner has to be taught a potential solution to the problem before the problem occurs.</p> <p><b>TIER 2. Sabotage and recognition of a problem</b> sees the member of staff who is the learner's communicative partner, ignore communications. The minimum required here is for learners to recognise that something is wrong, that is, that there is a problem, and to do something about it. This might be (as a minimum) to ask for help from another, different, member of staff who may then model the appropriate behaviour. <b>PLEASE NOTE, this is not about modelling the 'correct' behaviour</b> since the learner may well have been correct in the first place. This is about solving a problem of the</p>	<p>This problem, and many similar ones, appears as part of the Equals <i>My Communication</i> SoW.</p>	

	<p>person the learner wants to talk to being busy, distracted, not concentrating, or perhaps even being rude!</p> <p><b>TIER 3. Independent solutions</b> sees the problem recognised, but the member of staff unable to give help because they don't know the answer. You are looking for learners to go back to the person they want to talk to and try again without being told. Alternatively, the learner could communicate what they have to say to someone else.</p> <p>We know that this problem is likely to occur over and over again at various times and with various people, it is the nature of a busy classroom, and regular problems need regular solutions.</p> <p><b>TIER 4. Generalisation</b> might now see an extension of the problem. For example, the communicative partner is listening and paying attention, but does not understand the learner's communication. A potential solution should not need to be taught because you are looking for generalisation skills, that is for example, for the learner to approach someone else as an 'interpreter' or to use an alternative means of communication.</p>		
<p><b>Problem solving within Creativity</b></p> <p><b>To paint a picture</b></p>	<p><b>TIER 1. Memory building</b> involves introduction of the task, namely for the learners to get all of the materials needed from the respective cupboards, before they sit down to paint a picture. The learner has to be taught a potential solution to the problem before the problem occurs.</p> <p><b>TIER 2. Sabotage and recognition of a problem</b> sees one of the materials, for example, the paint, has run out. There are paint bottles, but they are all empty or just about empty. A variation of this might be for two paint bottles to be full, when there are 6 learners. This is especially the case when one or two learners get</p>		

	<p>the problem quickly and the other learners need practice; that is, there are no paint bottles by the time they get to the cupboard. The minimum required here is for learners to recognise that something is missing, that is, that there is a problem, and to do something about it. This might be (as a minimum) to indicate that there is no paint and to ask for help from a member of staff, in which case the learner might be assisted to find a full bottle from another cupboard or room, or ask to share someone else's paint.</p> <p><b>TIER 3. Independent solutions</b> sees the problem recognised, but the member of staff unable to give help because they don't know the answer. You are looking for learners to go to another cupboard to look for paint without being told to do so. Alternatively, they can make a decision to share two paint bottles between six. This solution will clearly need some negotiation between the learners.</p> <p><b>TIER 4. Generalisation</b> might now see an extension of the problem. For example, learners have decided to share the paint but two of the paint pots accidentally get knocked over by members of staff. Now there are three problems to solve (i) what to do about the spilled paint (ii) who should do something about it and (iii) how to get refills.</p>		
<p><b>Problem solving within Play and Leisure</b></p> <p><b>To find my swimwear when it has been misplaced</b></p>	<p><b>TIER 1. Memory building</b> involves introduction of the task, namely for the learner to be responsible for keeping hold of his/her swimwear from the time of collecting it at school to the time they go into the pool. This might involve several checks along the way to see if they still have their swim bags and their swimwear is still in it. The learner has to be taught a potential solution to the problem before the problem occurs.</p>		

	<p><b>TIER 2. Sabotage and recognition of a problem</b> sees the learner get to the changing rooms, but not have their swimwear with them. It is very likely that this is the sort of problem that will arise naturally and no sabotage will be needed. Staff would normally, continually prompt learners to hang on to their bags, but on this occasion no prompts are given and learners would be ‘allowed’ to misplace them. Staff may need to set up distractions on the way to the pool such as a member of staff tripping over and hurting themselves, so that everyone has to wait for two minutes en route. The minimum required here is for learners to recognise that something is missing, that is, that there is a problem, and to do something about it. This might be (as a minimum) to indicate that the learner has no costume and to ask for help from a member of staff, in which case the learner could be assisted to back track on the journey to see where they might have left their costume.</p> <p><b>TIER 3. Independent solutions</b> sees the problem recognised, but the member of staff unable to give help because they don’t know the answer. You are looking for learners to think about where they might have left their swimwear and back track to look for it once a member of staff has been informed that this is what the learner intends to do</p> <p><b>TIER 4. Generalisation</b> might now see an extension of the problem. For example, there is no towel, or the learner cannot find an item of clothing when getting dressed again. A potential solution should not need to be taught because you are looking for generalisation skills, that is, for the learner to look in a different place.</p>		<p>There are clearly limitless opportunities for the extension of generalisation skills when looking for lost things.</p>
--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	---------------------------------------------------------------------------------------------------------------------------

	<p><b>TIER 5. Self-belief and confidence</b> sees the learner challenged when a solution is found, for example <i>'Are you sure these are your trousers?'</i> and <i>'How do you know?'</i></p>		
<p><b>Problem solving within Citizenship</b></p> <p><b>To put litter in a bin</b></p>	<p><b>TIER 1. Memory building</b> involves introduction of the task, namely to be involved in putting litter in the class bin at every appropriate opportunity. The learner has to be taught a potential solution to the problem before the problem occurs.</p> <p><b>TIER 2. Sabotage and recognition of a problem</b> sees the mysterious removal of the litter bin. The minimum requirement here is for learners to recognise that something is missing, that is, that there is a problem, and to do something about it. This might be (as a minimum) to indicate that there is no bin to put the litter in and to ask for help from a member of staff who might assist the learner to look for the bin or put the rubbish in a bag or pocket.</p> <p><b>TIER 3. Independent solutions</b> sees the problem recognised, but the member of staff unable to give help because they don't know the answer. You are looking for learners to search for the bin, which is not in its usual place, without being told to do so, or to use a temporary alternative to a class bin such as a plastic bag, or to put the rubbish in their pocket until a bin can be located, again, without being told to do so.</p> <p><b>TIER 4. Generalisation</b> might now see an extension of the problem. For example, there are no litter bins whilst out in the local community. A potential solution should not need to be taught because you are looking for generalisation skills, that is, for the learner to put it in their pocket or a carrier bag until a bin can be found.</p>	<p>Clearly, as teachers, we will need to spend some time explaining to the learner why litter is a problem – many learners might not see this as a problem unless we teach them that it is.</p>	

<p><b>Problem solving within Physical well being</b></p> <p><b>Teeth cleaning with no tooth brush</b></p>	<p><b>TIER 1. Memory building</b> involves introduction of the task, namely for the learner to be involved in getting their own toothbrush and toothpaste from their regular place in the learners own toiletry bag as a preparation to teeth cleaning. Part of this problem solving will lie in the ability of the learner to recognise the undesirability of borrowing someone else’s toothbrush.</p> <p>Initial teaching about teeth cleaning must therefore include teaching learners to use a face cloth with toothpaste on it over their index finger as an alternative toothbrush. This is an essential first step. The learner has to be taught a potential solution, and the barriers to the solution, before the problem occurs.</p> <p><b>TIER 2. Sabotage and recognition of a problem</b> sees teeth cleaning time, but no toothbrush or possibly toothpaste. The minimum requirement here is for learners to recognise that something is missing, that is, that there is a problem, and to do something about it. This might be (as a minimum) to indicate that ‘my toothbrush/toothpaste is missing’ and to ask for help from a member of staff who may assist the learner in looking for their own toothbrush.</p> <p><b>TIER 3. Independent solutions</b> sees the problem recognised, but the member of staff unable to give help because they don’t know the answer. You are looking for learners to search for their toothbrush or toothpaste without being told to do so. Also, for them to come to a decision about how long they might search for the item and to use a face cloth if necessary, again, without being told to do so.</p> <p><b>TIER 4. Generalisation</b> might now see an extension of the problem. For example, there is no toothbrush and no face cloth. A potential</p>		
-----------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	--

	<p>solution should not need to be taught because you are looking for generalisation skills, that is, for the learner to use a corner of their towel, assuming they have their own towel, or just a finger if communal or paper towels are in use.</p>		
<p><b>Problem solving within ICT and Social Media</b></p> <p><b>Independently charging an i-pad, tablet and phone</b></p>	<p><b>TIER 1. Memory building</b> involves introduction of the task, namely to be shown how to, or assisted to, charge various pieces of equipment, for example, i-pad, tablet and phone. The learner has to be taught a potential solution to the problem before the problem occurs.</p> <p><b>TIER 2. Sabotage and recognition of a problem</b> sees the i-pad, tablet or phone run out of charge. The minimum requirement here is for learners to recognise that something is wrong, that is, that there is a problem, and to do something about it. This might be (as a minimum) to indicate that the item has run out of charge and to ask for help from a member of staff.</p> <p><b>TIER 3. Independent solutions</b> sees the problem recognised, but the member of staff unable to give help because they don't have time to deal with it. You are looking for learners to collect the correct charger and charge the item themselves. As this problem will occur regularly you are also looking for some discussion around how to plan ahead to avoid the problem in the first place; that is for the learners to put the equipment on charge the at the end of the day without being told to do so, and if it is a communal piece of equipment, for other learners to check that this task has been completed, again, without being told to do so.</p> <p><b>TIER 4. Generalisation</b> might now see an extension of the problem. For example, the learner has learned to charge an i-pad, but now</p>	<p>It is a central assertion of both the Equals <i>My ICT and Social Media</i> SoW and the Equals <i>My Communication</i> SoW, that all learners are taught to use, and regularly do use their own phones and tablets or i-pads in school. These are key communicative tools.</p>	<p>Wider generalisation</p>

	<p>their phone has no charge. A potential solution should not need to be taught because you are looking for generalisation skills, that is, for the learner to recognise that a different charger is needed and to know where to find that charger</p> <p><b>TIER 5. Self-belief and confidence</b> sees the learner challenged when a solution is found, so for example <i>'Are you sure this is the correct charger?'</i> and <i>'How do you know?'</i> Because of the potential damage incurred when forcing an incorrect charger into an item, this particular challenge might also be about making sure the learner has made the correct choice. Similar situations will occur when there is potential danger accruing from making the wrong decision, but it is important to get the right balance between safety and recognising that failure is an important learning opportunity.</p> <p><b>IT IS NOT EXPECTED</b> that the learner will be challenged every time they make a good decision. Self-confidence and self-belief are fragile things and need to be built up slowly and securely; we break them at our peril!</p>		<p>might include flat batteries in digital scales when cooking or only the wrong kettle lead/base is available.</p> <p>There are bound to be times when potential danger or potential damage to equipment might occur if learners are allowed to make wrong decisions, for example, in the kitchen. Clearly this is a judgment call because we are NOT suggesting that you allow something to happen that might be dangerous to the learner or others. Getting to</p>
--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

			<p>this higher stage will be extremely difficult for most learners with SLD, though that doesn't mean that we shouldn't aim high.</p>
<p><b>Problem solving within The World about us</b></p> <p><b>'Life in Italy' - making a pizza</b></p>	<p><b>TIER 1. Memory building</b> involves introduction of the task, namely to be involved in the process of making a pizza. The learner has to be taught a potential solution to the problem before the problem occurs.</p> <p><b>TIER 2. Sabotage and recognition of a problem</b> sees numerous potential problems occurring. If using a pre-made base for example, the base may be broken or mouldy. If making a pizza from scratch, there may be insufficient flour or cheese or tomato base for all. This is especially useful when one or two learners get the problem quickly and the other learners need practice; that is, there are no resources for completing the process by the time it gets to their turn. The minimum requirement here is for learners to recognise that something is missing, that is, that there is a problem, and to do something about it. This might be (as a minimum) to indicate that there is no .....and to ask for help from a member of staff.</p> <p><b>TIER 3. Independent solutions</b> sees the problem recognised, but the member of staff unable to give help because they don't know the answer. You are looking for learners to check in the fridge for another base or to make do with the (broken) one they have or to check in fridges and cupboards for other resources that might be</p>	<p><i>My Thinking and Problem Solving</i> runs right through the Equals Independence SoW of which Cooking and Food Technology is a part. It is probably true to say that it is impossible to teach Independence properly if staff do not address the many thinking and problem solving opportunities that are presented along the way.</p>	<p>This is another example of the</p>

	<p>missing. As this problem will probably occur regularly you are also looking for some discussion around how to plan ahead to avoid the problem in the first place; that is for your learners to plan out their weekly menus ahead of time and to shop accordingly, or even better for your learners to ensure that they always have spare amounts of non-perishable items such as flour, and to place these in a set cupboard.</p> <p><b>TIER 4. Generalisation</b> might now see an extension of the problem. For example, the last of the flour gets ‘accidentally’ spilled onto the floor or the cheese is covered in mould. A potential solution should not need to be taught because you are looking for generalisation skills.</p>		<p>need to look for learners extending their generalisation skills to recognise potential solutions for ‘accidents’ in all sorts of areas, though clearly the kitchen offers LOTS of potential practice.</p>
--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------