**learning
and skills
development
agency**

practical strategies
for learning and teaching
on vocational programmes

Ian Duckett and
Marilyn Tatarkowski

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Contents

Foreword

Some of the most effective educational practices that are spreading throughout the UK are based on accelerated learning and emotional intelligence / literacy techniques. When these concepts are introduced effectively into a school or college, teachers can see the benefits in terms of an improved institutional ethos and increased learner participation. Learners in one college reported that they felt that the techniques involved in accelerated learning helped them to become independent and achieve good results.

This guide includes effective strategies pertinent to improving the learning and teaching of vocational courses. With background information on how we learn and the structure of the brain, it goes on to explain delivery and assessment methods that focus on individual learners' needs and can easily be employed in the classroom.

The authors, Ian Duckett and Marilyn Tatarkowski, are well placed to offer advice and guidance on learning and teaching. They collaborated earlier in 2005 to produce another Learning and Skills Development Agency (LSDA) publication called *Getting started with the new A-levels: teaching and learning*.

Ian Duckett is a development adviser for LSDA's Vocational Learning Support Programme : 16–19, responsible for supporting the new A-levels and increasing flexibility in the curriculum. Before joining LSDA, Ian was a lecturer and curriculum manager in FE colleges. Ian is the author of articles and books on a range of educational topics, including recent titles *Putting learning at the centre of the new A-levels* (with Dr Cheryl A Jones ; LSDA 2005) and *Partnerships that work* (DfES 2005) .

Marilyn Tatarkowski is an experienced teacher, trainer and consultant in learning and teaching, and has worked in a range of secondary schools and colleges in London. As a consultant she has worked throughout the UK for educational consortia, LSDA, Learning and Skills Councils, schools and colleges. Marilyn's last teaching post was as cross-college observer for learning and teaching. In 2001 she won the 'Edexcel Outstanding Lecturer Award' and became a full-time consultant, delivering training to staff in colleges and schools.

Ian, Marilyn and I hope that readers will find this publication valuable, as they strive to create stimulating learning environments and to teach in innovative ways that meet the needs of individuals.

Michael Cox
Executive Manager
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Key issues in vocational learning

Accelerated learning

There is much interest in learning styles: identifying students' preferred ways of learning and meeting individual needs in the classroom through activities and assignments that are engaging, motivating and set in a vocational context. The emphasis of this publication is on practical strategies for learning and teaching, but first some theory.

The thinking behind accelerated learning is that people learn more effectively when both sides of the brain are engaged, although they may have an inherited preference or have perhaps developed a dominance for one side of the brain, which means they are more 'comfortable' with one sort of thinking than another. We know that geniuses such as Leonardo da Vinci and Albert Einstein were adept at using both sides of the brain.

Current educational theory believes that there needs to be an emphasis on creative education, as demonstrated in documents such as *All our futures: creativity, culture and education* (DfES 1999). Teachers can empower learners by encouraging them to talk about activities that use both sides of the brain.

Some practitioners believe that for most people the functions of the brain are attributed to the left side and the right side as follows, although this is not the case for everyone.

Left brain	Right brain
Language	Music and rhythm
Maths formulae	Colour
Detail	Big picture
Logic	Creativity
Analysis	Forms and patterns
Song script	Spatial awareness
Number	Imagination and visualisation
Sequences	Daydreaming

There is a view among some education specialists that the formal education system tends to value the left side of the brain more than the right. Accelerated learning suggests that by using both sides of the brain, the right helps the left to function more effectively. Figure 1 summarises the functions of the left side and the right side of the brain.

Figure 1. The functions of the left side and the right side of the brain

Daydreaming

Spatial Awareness

Colour

Rhythm

Forms & Patterns

Big Picture

Musical Appreciation

Imagination & Visualisation

Numbers

Sequences

Languages

Detail

Song

Script

Logic

Analysis

Maths

Formulae
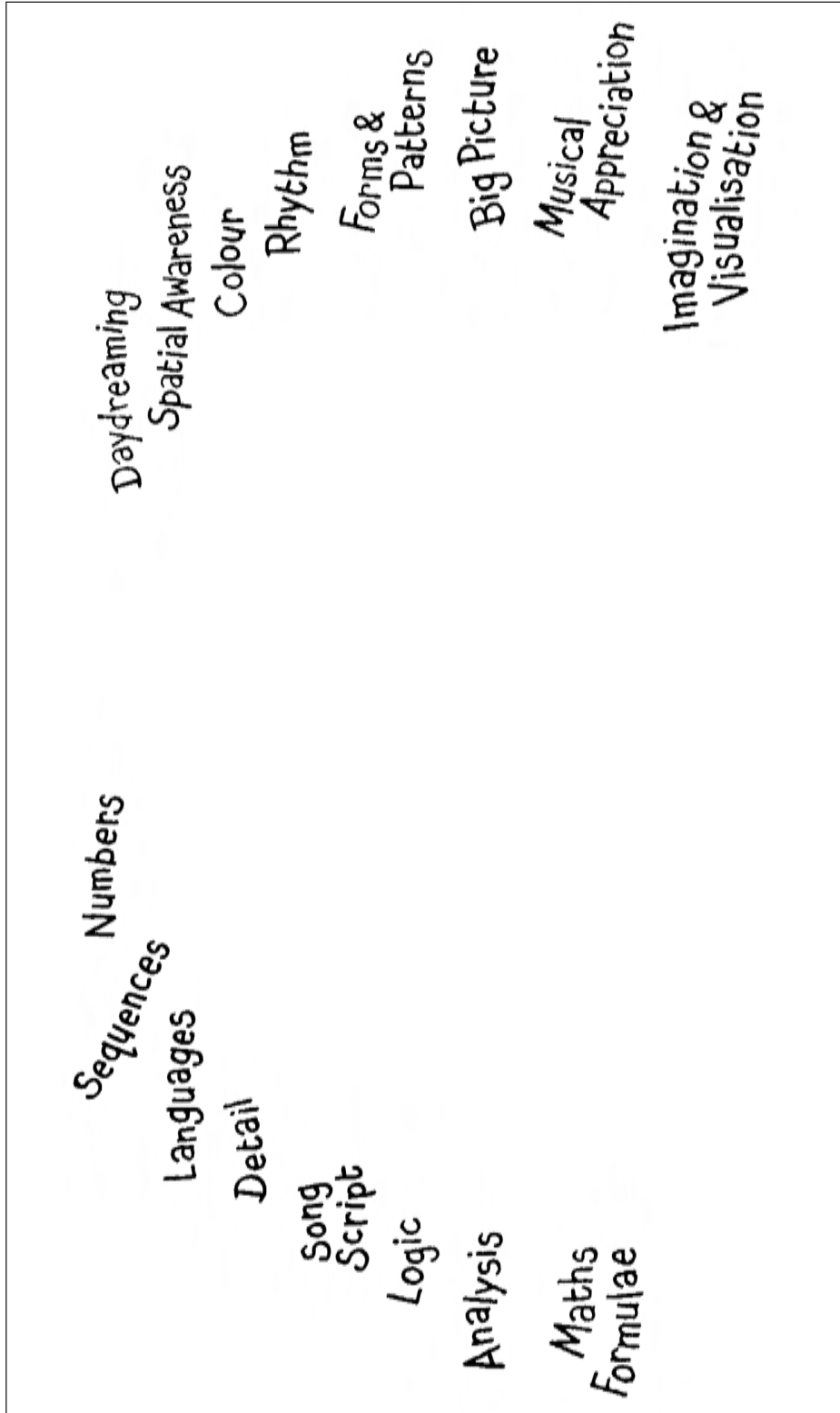
Emotional intelligence/literacy

The theory behind emotional intelligence / literacy is that for the brain to think through issues and to solve problems it needs to be free from stress.

Emotional intelligence / literacy believes that emotions have a key role to play in relation to memory and motivation. For example, humour releases endorphins that increase euphoria and this has a positive effect on learning.

Some research has identified features that will influence the brain's growth and learning (Cleeves Diamond 1999). These include :

- stimulating all the senses (although not all at once)
- providing an atmosphere free from undue pressure and stress, but with a degree of pleasurable interest
- presenting a series of novel challenges that are neither too hard nor too easy
- encouraging social interaction for a percentage of activities
- promoting the development of a broad range of skills and interests that are mental, physical, aesthetic, social and emotional
- encouraging the learner to be an active participant rather than a passive observer.

Robert Sylwester (1999) believes that while teachers cannot do anything about learners' genes or the experiences that they bring from home, they can be responsible for the quality of learners' educational experiences and ensure that they 'enhance the development of the student's brain'. He believes that : 'Our emotional system drives our attention system, which drives learning and memory and everything else that we do. It is biologically impossible to learn and remember anything that we don't pay attention to.'

The following sections of this publication focus on practical strategies for creating effective learning and teaching sessions.

Effective induction strategies in vocational learning

Physical environment

The theory surrounding emotional intelligence / literacy is that the physical environment affects how well learners achieve. To enhance learning, inspirational posters or pictures can be placed around the building with slogans such as 'The journey is the destination'. The learning environments should be decorated well, light and airy, and free from clutter, with learners' work displayed on the walls of the classrooms where they learn.

Physical needs of the learner

Young people can help themselves to become more effective learners by gaining knowledge about the following:

- Water – 80% of the brain is water. It stops the brain from dehydrating and learners should drink water from a sports-type bottle in their learning environment unless there are health and safety issues that prevent them from doing so, such as working in a laboratory or engineering workshop.

- Fruit and vegetables – the energy-storing chemical adenosine triphosphate (ATP) is produced by the food we eat (Greenfield 1997). When the brain is active it will demand more ATP stores and hence more carbohydrates, the simplest form of which is glucose. Learners should avoid 'junk food', particularly when revising for exams and on the day of exams. At one college, learners were encouraged to eat fruit during lessons. Some learners reported to the teacher that it was the first piece of fruit that they had eaten for years.

- Sleep – a good night's sleep is essential to rest the body. Listening to gentle music or reading a book before bedtime, particularly when the mind is active, is good. Teenagers need a lot of sleep, although going to bed early is more beneficial than sleeping late in the morning.

- Oxygen – the brain uses 25% of the body's oxygen, therefore learners need to work in a well-ventilated room. Learners can have breaks using 'Brain Gym' (explained on page 37) throughout the day, and they should have a brisk walk in the fresh air for at least 20 minutes a day.

Positive thinking and positive language

How the conscious and unconscious mind affect learning

Claxton (1997) talks about the conscious and unconscious (subconscious) mind and how they affect behaviour and emotions. This can include the language we use and the perceptions that we have of ourselves and our environment.

If learners tell themselves that they cannot do maths and that maths is too difficult for them, then it should not be a surprise to find that they are not able to produce good mathematical work. The problem can be bigger when learners talk about themselves in a negative way, for example, 'I am a failure' and 'I am no good at this'. This negative attitude is picked up by their unconscious mind and the chances of success for these learners are slim.

Activity – the importance of positive thinking and language in learning

To encourage learners to think about positive and negative language, try the activity below.

Invite learners to write their first name in a vertical line on a piece of A4 paper and then next to each letter write a word to describe themselves. Ask them to analyse whether they have written positive or negative words about themselves. Discuss learners' use of any negative words and the consequences for their learning, given the message that they are conveying to their unconscious mind. Get them to write their first name again, using only very positive descriptions of themselves, for example, M – marvellous, A – amazing, and so on. Ask them to introduce themselves to as many people as possible reading their new identity. At the end of this activity, have a whole-class discussion about what happened. This is a good time to suggest that negative language and behaviour are to be left outside the learning environment and that only positive language and behaviour are to be used. Emphasise that this is a new start for everyone.

One college got the learners to write the negative words on a piece of paper and throw the paper in the bin, emphasising that these views of themselves have to be 'thrown away' to ensure a positive new start to their course.

Encourage learners to change their language, so instead of saying 'I cannot do maths', they say 'I could do maths better'. The unconscious mind picks up the word 'better'. Teachers need to look at the language they use, particularly in relation to learners. Thinking positively is a vital ingredient in being successful.

Preparing for vocational learning induction

Stationery

Because learning is more effective when it is fun, it is a good idea to get some colourful stationery. Also, according to accelerated learning techniques, colour helps the brain to retain information. Some learners do not even bring a pen or paper to the sessions, but staff at one college found that when they started using a lot of coloured paper and highlighters the learners started to bring their own stationery. Actively encourage learners to invest in some stationery by giving them a list of useful items. There are some suggestions listed below:

- two black and / or two blue pens
- coloured pens possibly red, green or any other colours
- A4 ring folder
- A4 pad of lined paper with two holes punched and a margin, and possibly a pad of coloured paper
- A4 dividers
- highlighter pens
- coloured pencils
- coloured Post-it notes
- two lead pencils and a pencil sharpener
- rubber
- ruler
- small hole puncher for handouts
- blank outline of a school / college timetable.

Where is the best place to study ?

Talk to learners about where they work best: is it at home or at school or college? Explain that the physical environment and their personal comfort can affect their ability to study and that it is advisable to have the following when they are studying:

- good lighting
- good ventilation

- either a quiet place, or somewhere with music playing; alpha beat music (see page 43) such as Mozart, Bach and Brahms or 'chill-out' albums will help them to concentrate; recent research shows that no one can study effectively with the television on

- a desk and chair (although if they produce work of a high standard lying on the floor, then they can do so)

- water in a sports bottle (to stop spillage onto their work)

- some fruit to help them concentrate

- books and stationery

- access to a computer (if possible).

Learners can avoid distraction from others in areas such as the learning and resources centre after 4pm when most people go home, and they can also use the internet and other facilities then without having to queue.

Organising time effectively for study

Organising time effectively is particularly important for vocational learners who may be undertaking work experience or who are involved in projects that are work-related such as engineering. There is no ideal time of the day (or night) that is best to set aside for studying. Some people prefer to get up early and are at their best first thing in the day, whereas others find they can concentrate better in the evening.

Give learners a blank school or college timetable from 9am to 5pm. They may be able to get a timetable that extends from 9am to 9pm if they will be undertaking evening work such as performing arts.

On the timetable ask the learners to write the times when they go to college, when they are at their work placement and when they are at work if they have a job. They can write in their lunchtimes and breaks and then look at the hours that they have left for studying. Suggest that learners use a different coloured pen or pencil for each subject or study period to further improve their organisation. They can also write in pencil the days when assignments and units of work have to be completed and then rub out the dates when the assignments have been handed in.

When undertaking their college work, learners can look at the study periods on their timetable and treat the college day the same as a day at work (9am to 5pm). They can use these study periods for completing their work rather than chatting with friends in the canteen or watching television at home. Using this timetable approach can enable learners to complete their work between 9am and 5pm, and their evenings are then free for them to relax and socialise. They will be stress-free and achieve their goals at the same time.

Organising time effectively for studying

	9am	10am	11am	Noon	1pm	2pm	3pm	4pm	5pm
Monday	Media: communication and production	Media: communication and production	Media: communication and production	Lunch	Applied business	Applied business	Study	Study	
Tuesday	Study	Study	Study	Study	Lunch	English	English	Study	
Wednesday	Study	Media: communication and production 8.6.05 assignment due	Media: communication and production	Lunch	Work placement	Work placement	Work placement	Study	
Thursday	Applied business	Applied business	Applied business 23.5.05 Unit 1 completed	Study	Study	Lunch	Study	Study	
Friday	English	English	English	Lunch	Study	Study	Study	Study	
Saturday	Job	Job	Job	Job	Lunch	Job	Job		Job
Sunday									

Study skills and learning styles induction

Visual, auditory and kinaesthetic learning styles

There is an educational focus on learning styles because they can meet learners' needs and also empower them to be more effective. Learners can work using their preferred learning styles, but also strengthen their weakest learning styles.

What is meant by a learning style ?

A learning style is the way in which an individual learner tries to learn. It concerns the ways in which learners approach and experience learning, and use information. There are varying views as to whether a preferred learning style is genetic, dependent on which part of the brain is most receptive or a consequence of the way in which we have been taught. However, it is likely that learning styles are the result of interaction between what is inherited and our experiences.

Filling in questionnaires and quizzes to determine preferred learning styles can be fun, but will not be effective unless they become part of an ongoing programme of learning how to learn.

Some practitioners believe that approximately one-third of the population has a preferred learning style that is visual, one-third that is auditory and one-third that is kinaesthetic. However, there is some evidence which suggests that learners attracted to vocational courses are more likely to be kinaesthetic learners. They often enjoy the more 'hands on' part of the course, but sometimes find the theoretical parts more challenging because they are frequently taught in a more visual and auditory style. Finding out a learner's preferred learning style encourages discussion with the learner, but it should not become a labelling exercise.

Identifying learning styles in induction

Undertaking some form of analysis on learners' learning styles in induction can :

- help identify possible challenges for a learner
- help teachers to include differentiation in their lessons
- help to create a learner's individual learning plan.

It is always advisable to undertake more than one 'test' to help learners to identify their preferred learning styles. Having undertaken the tests, the point of the exercise is to discuss with the learners how they can help themselves learn.

Activity – promoting discussion on learning styles

Put learners into pairs and call one of the pairs 'A' and the other 'B'. Give learner B a piece of A4 paper and a pen and then give the learners two minutes in which learner A describes the room to B, who writes the description down. After two minutes go around the room asking learner B to read out what learner A said and write down any similarities and differences. After listening to a couple of learners reading out the descriptions, discuss as a group the differences between them.

Teachers will find that some learners' descriptions start with the 'big picture', for example, the room is square with four windows. Others will talk about the room being light and airy. Although everyone is sitting in the same room, some of the descriptions will be different. This should help learners to understand that as individuals we see things differently and that it is acceptable to do so. In one college learners used four different colours to describe the same walls.

Then learner B can describe to learner A in a two-minute period one of their most memorable lessons. The teacher will be able to identify what made that lesson effective.

Learner activity – diagnosing preferred learning styles

In the following activity, write the answers to a series of questions using your first instinct. Do not discuss this with other learners until they have written their answers.

A. Assembling items that are packed in boxes. One good way to find out your preferred learning style is to think of anything that you have bought or assembled. When assembling something such as a piece of furniture, games, toys or a computer, what do you **want** to do first:

1. open the packaging and try to put the item together without reading the instructions?

2. read all of the instructions before attempting to put the item together?

3. hand the instructions to someone else to read them to you or read them aloud to yourself?

B. On a journey. If you have arrived at a new location by bus or train but do not know what roads to walk along to get to the address of the place you are visiting, would you **prefer** to:

1. walk around the streets until you find the address?

2. use a map to see where you need to go?

3. ask someone for directions?

C. Leisure time. When you have free time, do you prefer to spend it:

1. making things, participating in sport, cooking, taking things apart or doing something physical?

2. reading a book, watching television / DVDs, drawing or doing puzzles?

3. listening to music or talks on the radio, or chatting with friends either in groups or on the phone?

Please circle the relevant answer below:

A1 = K   A2 = V   A3 = A

B1 = K   B2 = V   B3 = A

C1 = K   C2 = V   C3 = A

Conclusion: My preferred learning style is _____

Visual, auditory and kinaesthetic (VAK) learning styles assessment

Please tick the appropriate box after each statement and do not discuss your answers with anyone else until you have completed the boxes.

		Often	Sometimes	Rarely
1	I like hearing a story or play read on the radio.			
2	I find it difficult to sit still for a long time.			
3	I am good at crosswords and puzzles.			
4	I spend a lot of time talking on the telephone.			
5	I like to write things down or to take notes.			
6	I enjoy making things and using my hands.			
7	I touch someone when I am talking to them.			
8	I prefer books that have pictures.			
9	I enjoy learning from graphs and charts.			
10	I like class discussion.			
11	I make gestures a lot when I am talking.			
12	I like to chew gum or eat when I am studying.			
13	I doodle on paper when I am listening to someone or thinking about something.			
14	I like listening to music in the background when I am working.			
15	I like rides at fun fairs.			
16	I would rather watch television than listen to music.			
17	I can identify different musical instruments.			
18	I remember names rather than faces.			

Scoring for VAK learning style assessment

For each answer of **often** score 5 points.
For each answer of **sometimes** score 3 points.
For each answer of **rarely** score 1 point.

In the table below, write the score you gained for each statement then calculate the total of each column to discover your strongest and weakest learning style. The learning style with the most points is your strongest. The learning style with the least points is your weakest. So, are you a visual, auditory or kinaesthetic leaner?

Visual		Auditory		Kinaesthetic	
3		1		2	
5		4		6	
8		10		7	
9		14		11	
13		17		12	
16		18		15	
Total		Total		Total	

Conclusion of VAK preference :

My strongest learning style is _____

My weakest learning style is _____

Learner activity

Look at the possible characteristics of different learning styles and, with a highlighter, identify which characteristics you have. This will also give you an indication of what type of learner you are.

Visual

- Quiet in nature, watch rather than talk
- Keep well-organised and neat notes
- Notice detail
- Put information in visual forms, memorise by using pictures or drawing doodles when you are listening
- Prefer to read information and to write notes
- Enjoy reading stories and good at spelling

Auditory

- Hum and sing
- Enjoy class discussion
- Talk aloud to yourself, or move your lips or whisper when reading
- Need to talk through new learning
- Remember what you hear and say
- Enjoy listening to stories or people talking

Kinaesthetic

- Remember what you do and experience
- Memorise things by making posters or models
- Outgoing in nature, use gestures a lot and do not sit still for long
- Like to do physical activities such as making a video or stripping machinery such as a car engine
- Tap your pencil or foot
- Disorganised

Application of the VAK learning styles

Teacher activity

After looking at the VAK learning styles, the next step is to examine schemes of work and lesson plans. Do your schemes of work include visual, auditory and kinaesthetic strategies in each lesson? Teachers could work through the schemes of work and colour code the VAK strategies that are included. For example, visual can be highlighted in blue, auditory in green and kinaesthetic in yellow.

For more learning strategies, teachers can use the learning and teaching strategies and learning styles activities in this handbook and see how they fit into schemes of work and lessons plans. If teachers undertake this exercise as a departmental activity and pool resources, lesson preparation becomes more effective. Further information about learning styles can also be found in *Getting started with the new A-levels: teaching and learning* (Duckett and Tatarkowski 2005).

Study skills induction and multiple intelligences

Howard Gardner's multiple intelligences and their application for effective subject-specific vocational learning

The advantages of including multiple intelligences in induction are that they can help learners analyse their own multiple-intelligences profile and teachers can match them to the skills learners need to succeed on their course. Learners can become more effective by working towards individual action plans based on their multiple-intelligences profile. For example, if learners need to undertake mathematical calculations in engineering or applied science but have a low mathematical–logical intelligence score, or if they have to write reports in travel or tourism or health and social care but have a low linguistic score, they can be given an individual action plan to improve their performance.

Howard Gardner has identified at least nine multiple intelligences. The first eight are often used in primary schools, but some educationalists believe that the first seven are the most effective for learners taking applied A-levels. They are:

- linguistic intelligence

- logical–mathematical intelligence

- visual–spatial intelligence

- musical intelligence

- bodily–kinaesthetic intelligence

- interpersonal–social intelligence

- intrapersonal–intuitive intelligence.

Allow learners to work out their multiple-intelligence profile by completing the following activity. The activity only assesses the multiple intelligences that are most conducive to vocational learning.

Having calculated their scores, learners transfer them onto their own copy of the diagram on page 23, using a different coloured pencil for each multiple intelligence. So, if a learner's score is 17 for the bodily–kinaesthetic intelligence, she colours up to the number 17 on the part of the target diagram that relates to this intelligence.

Work out your multiple-intelligence profile

Please tick the box that best describes you.	This is not like me at all **Score 0**	I am very rarely like this **Score 1**	This is a bit like me **Score 2**	This is sometimes like me **Score 3**	I am like this more often than not **Score 4**	I am always like this **Score 5**
1. I always do things one step at a time.						
2. I have a good sense of direction.						
3. I enjoy writing things down.						
4. I enjoy problems and puzzles.						
5. I can tell when my friends are happy or sad.						
6. I have a good sense of balance and like to move around a lot.						
7. I am good at mathematical problems and using numbers.						
8. I remember things by repeating them to a rhythm.						
9. I like to work with my hands.						
10. It is easy for me to learn about things that interest me.						
11. I can use lots of different words to express myself.						
12. I find it hard to sit still.						
13. My mood changes when I listen to music.						
14. I like to use charts and diagrams in my learning.						
15. I know some of my weaknesses and strengths.						
16. I like to work things out and put things in order.						
17. I can sort out arguments between friends.						

Please tick the box that best describes you.	This is not like me at all Score 0	I am very rarely like this Score 1	This is a bit like me Score 2	This is sometimes like me Score 3	I am like this more often than not Score 4	I am always like this Score 5
18. I notice things. I often see things that others miss.						
19. I can pick out different instruments						
20. I like to make lists.						
21. My best thinking is done when I am on the move.						
22. I like working and thinking on my own and quietly.						
23. I can see pictures in my head when I remember things.						
24. I learn well from listening to others.						
25. I learn best by doing things.						
26. I enjoy making music.						
27. I like to work in a team.						
28. I like to think out loud.						
29. I can remember music and songs easily.						
30. I am curious about why my friends do things.						
31. I can take things apart and put them back together easily.						
32. I like explaining things to others.						
33. I know my own mind						
34. I like playing games with my friends.						
35. I enjoy working on my own.						

Once you have ticked a box for each statement, you need to work out your multiple-intelligence profile. To do that, write down your score for each statement and work out the total for each section. The section with the highest number of points represents your strongest multiple intelligence.

Linguistic intelligence Word smart

My score for the statements:	Score
3	
11	
24	
28	
32	
Total	

Logical–mathematical intelligence Number or order smart

My score for the statements:	Score
1	
4	
7	
16	
20	
Total	

Visual–spatial intelligence Picture smart

My score for the statements:	Score
2	
14	
18	
23	
31	
Total	

Musical intelligence Music smart

My score for the statements:	Score
8	
13	
19	
26	
29	
Total	

Bodily–kinaesthetic intelligence Body smart

My score for the statements:	Score
6	
9	
12	
21	
25	
Total	

Interpersonal–social intelligence People smart

My score for the statements:	Score
5	
17	
27	
30	
34	
Total	

Intrapersonal–intuitive intelligence Myself smart

My score for the statements:	Score
10	
15	
22	
33	
35	
Total	

Adapted from the multiple intelligences test at
**www2.bgfl.org/bgfl2/custom/resources_ftp/client_ftp/
ks3/ict/multiple_int/questions/questions.cfm**

Multiple intelligence target diagram

Bodily–kinaesthetic intelligence (Body smart)

Linguistic intelligence (Word smart)

Visual–spatial intelligence (Picture smart)

Logical–mathematical intelligence (Number smart)

Musical intelligence (Music smart)

Interpersonal–social intelligence (People smart)

Intrapersonal–intuitive intelligence (Myself smart)

20

15

10

5
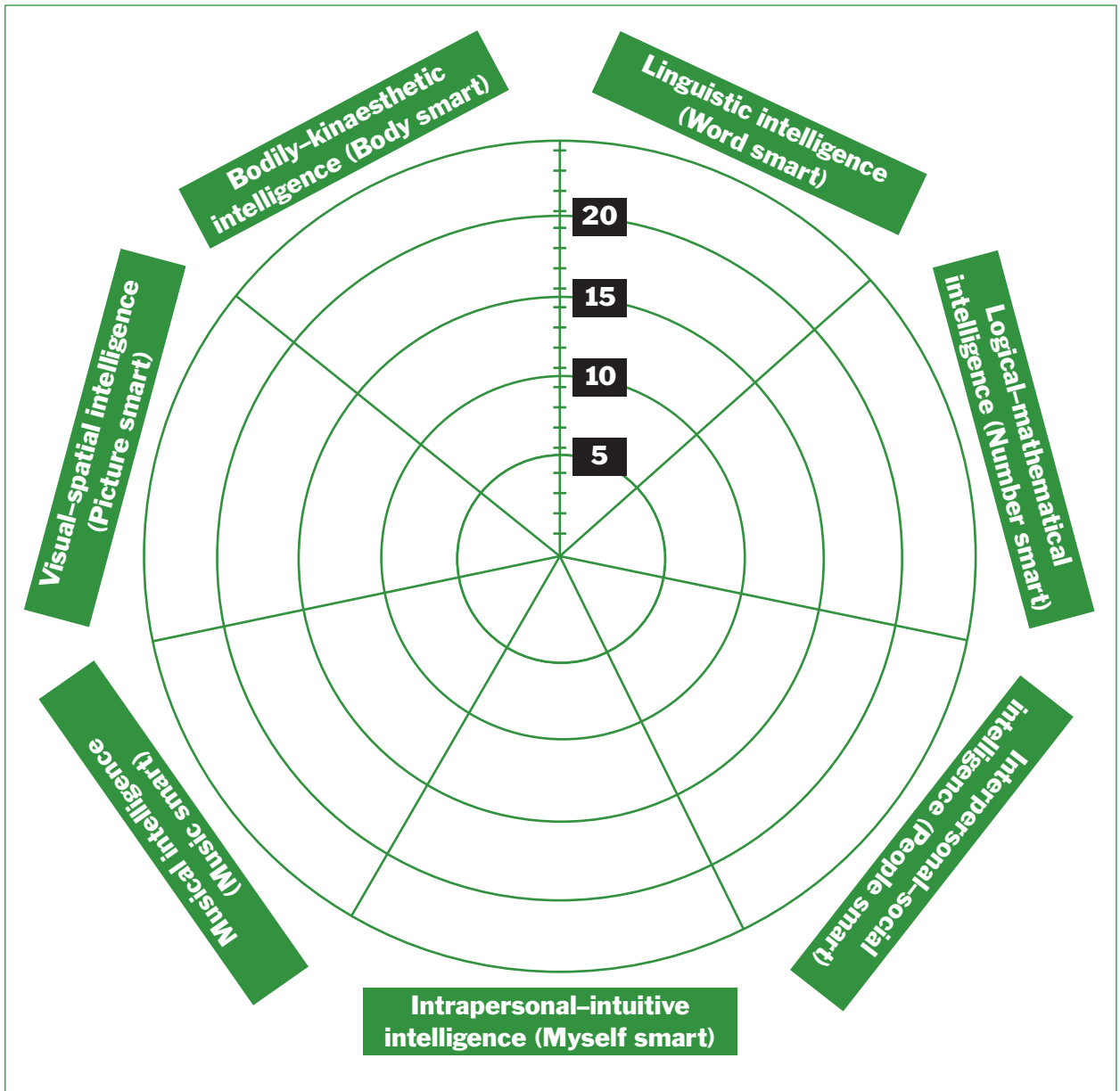
When teachers have identified their learners' preferred learning styles and multiple-intelligence preferences, they can give them specific goals and targets in their individual learning plans.

Subject-specific induction

As well as identifying the necessary skills that learners need for their course using the multiple-intelligences approach, there are other subject-specific induction materials that can be provided. To give learners the 'big picture' as well as the detail of their course, it is useful to assign them a subject. This could take the form of a:

- reading list which can include websites that will be useful during the course

- glossary of technical terms, key words or phrases

- list with the explanations of concepts such as 'evaluate' and 'analyse'

- list of careers or jobs where the subjects that they are studying will be useful; for example, in performing arts this might include stage lighting

- marking scheme of the course

- timetable of when they can expect homework or assignments during the term and the date when they can expect the work to be returned to them.

On vocational courses it is important to identify support needs for learners with dyslexia and for those who have English as an additional language.

Planning an effective vocational lesson

Using accelerated learning techniques and incorporating differentiation

Putting together effective lesson plans should involve the following processes:

- Write appropriate aims.

- Write appropriate objectives or outcomes.

- Always start the lesson by reviewing the last one.

- Give students an overview of the lesson and how it relates to the previous one and the next one.

- Identify an appropriate amount of content and / or activities for the time available.

- Identify strategies by which students will learn.

- Identify strategies by which students' learning will be assessed.

- List a variety of learning support materials reflecting students' abilities and learning styles.

- Make good use of the last 10 minutes of a lesson and include a summary.

When creating a lesson plan, the following techniques may help to incorporate differentiation to meet individual students' abilities and learning styles.

Aims and objectives

Write the aims and objectives of the lesson on the board or on a flip chart at the beginning of the lesson. Alternatively, have two laminated cards, one with 'Aims' and the other with 'Objectives' written on them in large writing, and place them at the side of the whiteboard. Then write on the whiteboard the aims and objectives at the beginning of every lesson. This will provide learners with a visual prompt. Learners who are late can see at a glance the aims and objectives of the lesson.

Reviewing the previous lesson

When using a group activity to review the previous lesson, teachers can write the aims and objectives of the current lesson on the whiteboard while learners are undertaking this group work. This also allows those learners who are a few minutes late to join the group. The following items can be used.

- **Coloured Post-it notes**. Review the previous lesson in a kinaesthetic way, for example, arrange learners in groups, hand out five coloured Post-it notes and ask them to write down five of the most important things that they remember from the last lesson. This will get them discussing the previous lesson and debating the most important points. One or two learners from each group can put the Post-it notes on the wall and explain to the class why they thought they were the most important points. Each group takes its turn, which allows the teacher to see at a glance if learners understood the aims and objectives of the previous lesson.

- **Coloured A1 sugar paper**. Review the previous lesson in a kinaesthetic way by giving a piece of A1 sugar paper or flip-chart paper and marker pens to each group, so that learners can write down the most important things they remember from the previous lesson. The learners then attach their work to the wall and explain it to the rest of the group.

- **Coloured A4 or A3 paper and coloured pens and pencils**. Ask learners to create an individual mind map for four minutes of what they remember from the previous lesson and then get them to share their mind map with the person next to them. Each learner can add onto their mind map anything they have forgotten. Ask learners to feed back to the class those things they had remembered and also those they had forgotten.

Only give learners a short time to do these activities so that they remain focused. Six to eight minutes is ideal.

Identify an appropriate amount of content and/or activities for the time available

Some practitioners believe that a person's concentration span is two minutes in excess of their chronological age, therefore a 16 year old's concentration span is 18 minutes. This period of concentration peaks at the age of 20 years, therefore no one can really concentrate on one activity for longer than 22 minutes. People can concentrate for longer periods of time if they are multi-tasking. This theory of the concentration span is connected to the BEM principle.

The BEM principle

The BEM (beginning – end – middle) principle states that we learn more at the beginning and the end of a lesson than we do in the middle. The view is that the first 12 minutes and the last eight minutes of a lesson are the best for concentration and we lose concentration in the middle. That is why many teachers prepare their lessons in 20-minute chunks, to achieve maximum concentration from their learners.

Teachers can manage the concentration time span effectively by planning lessons so that they hand out assignments and homework or take them in during the 'dip' period of time. Alternatively, they can arrange a short pair activity or group activity, even if it is only for a few minutes, to provide an effective break from concentration and to prepare for the next longer period of concentration.

Identify strategies by which learners will learn

Below are some techniques that teachers can use to help with the visual, auditory and kinaesthetic approaches to learning.

Visual engagement

- Put a visual reminder of the aims and objectives of the session somewhere in the room. If they are written in large letters on laminated cards on the left-hand side of the whiteboard, teachers can write on the whiteboard the new aims and objectives of each lesson.

- Place information, key words and posters above eye level in the room or corridors.

- Use lots of visual stimuli such as Post-it notes, posters, cue cards, diagrams, maps and charts.

- Use visualisations or guided visualisations.

- Draw with coloured pens on the whiteboard.

- Put overhead transparencies on the whiteboard or screen.

- Use videos.

- Use coloured pens and coloured paper.

- Use mind maps and spider diagrams.

Auditory engagement

- Use lots of verbal instructions and explanations.

- Use appropriate music to complement classroom learning.

- Encourage class discussion, debate and analysis.

- Talk in a positive way.

- Use singing, chanting, poems, rhyme, rhythm, rap and jingles to learn information.

- Read passages out loud.

- Encourage learners to join revision groups and get them to revise by asking each other questions when studying for a test or exam.

- Use radio recordings or tape recordings of relevant information.

Kinaesthetic engagement

- Build in regular, planned physical breaks approximately every 20 minutes.

- Get learners to work in groups and to move to other groups regularly.

- Get learners to work together in groups and ask one group member to come out to the front to explain the group's answers. Written answers can be attached to a wall, for example on A1 sugar paper or flip-chart paper.

- Use lots of gestures and be animated.

- Use different parts of the room for activities.

- Use Brain Gym (see page 37).

- Ask learners to get out of their seats and write on the whiteboard or flip chart.

- Project overhead transparencies onto the whiteboard and ask learners to write the answers to questions or analyse information projected onto the whiteboard.

- Ask learners to make presentations.

- Ask learners to undertake role-plays; for example in applied business or travel and tourism they could act out a customer-relations scenario.

- Use games or sections from games, for example use Monopoly money to explain an aspect of business studies. Play Scrabble using the letters to create subject-specific words; for example words in travel and tourism could be 'ship', 'hotel', 'France' and so on.

- Use modelling clay, Plasticine or Play-Doh; for example if learners have to know methods of sampling for research purposes, ask them to do a pattern of colours representing quota sampling, stratified sampling and cluster sampling.

- Go on field trips.

Effective group or pair work

Whenever undertaking group or pair work, always give learners a period of time shorter than 20 minutes to complete the task. Make sure that learners vary their roles in the group work, for example if one person writes in one lesson, they cannot do the writing in the next lesson. If learners are shy, they can be encouraged to participate in the group work because, if the answer or information is not right, it is the group that is responsible and not one individual. If the answer or information is right, then the shy learners get the credit, which will increase their self-esteem.

Differentiated levels of worksheets or tasks

Differentiation helps ensure that work can be pitched at the right level for a variety of learners. As far as possible, create worksheets that are interactive. In other words, include space on the worksheets for learners to include written or drawn information, preferably in colour. Effective ways of developing differentiated worksheets or tasks include the following.

- Provide more than one way to complete an assignment: either 'write a paragraph to summarise…' or 'can you tell me the key differences…' or 'what is the idea behind…?'

- Ensure that you have extension work and that it does not include excessive writing, that it is not just more of the same thing and that it is interesting.

- Create worksheets that have three sections, with each section having a different level of work. The first section could be in blue, the second section in green and the third section in red. Each section has a particular level of difficulty, but the first section is not the easiest challenge. Sort learners into groups, designating them the blue, green or red group, and they will undertake the relevant section on the worksheet. A pair from each group will feed back to the class the findings of at least one of their tasks so that each group is valued. Change the members of the groups from time to time to get the more able learners working with those having difficulty. Change the colours of the different abilities sections to avoid labelling learners.

- Use different worksheets or different tasks.

- Encourage learners to undertake work in different ways: design a poster, create a leaflet, write a report, record a drama or radio programme on a tape recorder and so on.

- Set work that is appropriate to a learner's individual goals as set out in the individual learning plan.

- Know learners' preferred learning styles, whether they are visual, auditory or kinaesthetic, and include VAK strategies in every lesson.

- Create work that includes Howard Gardner's multiple intelligences (see page 18) from learners' individual learning plans. For example, get learners to create crosswords to share with their peers.

- Remember to include a variety of learning activities.

- An effective way of using a variety of learning activities is to offer numerous options for homework, assignment work or preparation work. Learners could be given two nights to prepare a word search about their subject, for example travel and tourism, to share with other learners.

Identify strategies by which learning will be assessed

Carrying out group or pair work is a stress-free way to undertake assessment. Ask learners to answer questions or to present an analysis or an evaluation on a piece of work as a group. Then one member of the group will feed back the information by a kinaesthetic means, for example using a flip chart, sugar paper or Post-it notes. If the answer is wrong, this will lead to a discussion about the thinking and reasoning behind the answer. This is a real assessment of learning and understanding of information and concepts.

Short tests are an effective way of checking understanding of learning. Put the tests inside two envelopes and ask the learners: 'Do you want test A or test B today?' Let them decide which test they want and hand out the question papers. The tests can have the questions written on the paper with a space for one-word answers. The advantage of this type of test is that the learners can then exchange papers to mark each other's work straight away – immediate feedback is essential for effective learning. Teachers may wish to take the papers in to check the marking and write down the marks.

During the lesson, ask pairs of learners to discuss two things that they have learned and two things that they have not understood. Give them a few minutes to do this. Get them to feed back to the class what they discussed. The advantage of this assessment of learning is that if learners tell their partners that they do not understand and the partners do understand, then the people who do understand can teach the ones who do not. If both learners have not understood something, they will feel happier about telling the teacher. Sometimes learners are reluctant to tell teachers that they do not understand something because they think that they are the only ones. This strategy is a good way of getting round this.

When marking work, state clearly the objectives of the work set and, when giving feedback, ensure that it is specific and shows what can be done to improve the work. Focus on the skills that learners need. For example, if they need the skills of knowledge and understanding, interpretation and application, and evaluation, put a 'k / u', or 'i / a' or 'e' in the margin where those skills were displayed. If there are very few 'e's, for example, then the learners know what skills they need to develop.

If learners have marked each other's work, teachers should always check it afterwards to ensure fairness and accuracy. When a piece of written work contains common errors, debrief the whole class in the next lesson rather than repeat teacher-written comments.

List a variety of learning support materials reflecting learners' abilities and learning styles

Use of the above strategies provides a lesson plan that shows a variety of learning support materials reflecting learners' abilities and learning styles.

Summary techniques

Teachers should plan their summaries for the last 10 minutes of the lesson. They should not finish the lesson early unless they have already warned the learners that they will be doing so, otherwise they will miss the prime time of learning at the end of the session, according to the BEM principle. In the last 10 minutes of the session teachers can summarise by:

- asking the learners: 'What three or five questions can you now answer that you could not before you came into the room today?'

- handing out three or five Post-it notes to groups of learners and asking them to write down the questions they can now answer, to put them on the wall and to read them out

- giving learners coloured A4 sheets with numbers one to five written on them and with a space to write their name at the top; ask learners to write the questions they can now answer on the sheets; they can either be read out or taken in

- asking learners to write down in pairs what three or five questions they can now answer and to feed them back verbally

- getting learners to draw a mind map of what they remember from the lesson, to share it with a partner and to feed back their combined mind maps to the class.

Any method used to get learners to feed back what they have learned should cover the aims and objectives of the lesson and any that are not mentioned can be covered before they leave the room. These strategies will also give an indication of where teachers need to concentrate the early part of the next lesson.

Individual learning plans

Individual learning plans should implement information relating to learning gathered during induction. Goal setting and SMART targets are an essential part of individual learning plans. Individual learning plans should:

- provide structure for one-to-one tutorials, focusing both the tutor and learners on meeting individual needs

- aid three-way communication between personal tutors, learners and subject teachers

- provide learners with helpful feedback on their progress

- have SMART targets (see below)

- have specific action plans to promote improved learning that can be agreed, planned and targeted with short-term, achievable goals such as 'I will attend every lesson punctually for the next three weeks'; those who hand in assignments late can be given specific dates that can be monitored, for example on 25 November 2005

- include support mechanisms that can help promote success, for example, learners can agree to attend the learning centre for help with essay-writing or portfolio-building skills on Wednesdays at 2pm

- include learners' time-keeping, attendance, attitude, motivation and commitment

- be used as a working document by teachers, tutors, learning support assistants and learners

- be incorporated into a pastoral care system which centres around the learner and learning

- lead to a prompt response to issues that restrict learners' progress

- encourage learners to form a holistic view of their learning. It will be possible for them to make essential links across subjects or units, for example where a need to develop research skills has been identified in one curriculum area; targets that seek to improve research skills are likely to benefit learners' approaches across their learning programme

- include progression advice and possibly careers advice.

SMART targets

The benefits of setting targets are that learners gain the knowledge, skills and confidence to deal with the challenges of adult life and to make decisions about their career options.

Setting long-term goals and short-term targets can be extremely motivating for learners. Long-term goals can give a vision for the future. They might relate to career aims or qualifications and are likely to take some time to achieve. Short-term targets can challenge learners to undertake short bursts of learning activity. They are likely to relate to attitudes, behaviour and study skills that need to be developed and / or improved if the long-term goals are to be reached. In effect, short-term targets make up the steps that lead to the achievement of a long-term goal.

Targets need to be **SMART**:

- **S**pecific – they say exactly what learners need to do

- **M**easurable – learners can prove they have reached them

- **A**chievable – learners have the potential to achieve them within a reasonable timescale

- **R**ealistic – they are about actions that can be taken

- **T**ime-related – they have deadlines.

The action plan in the individual learning plans specifies what learners need to do to achieve the SMART targets and details what and who will help them.

If tutors are to support learners in setting SMART targets that focus on learning, they must have feedback about learners' actual performance from the staff who teach different elements of the learning programme. If this information is available to the tutor, he or she can encourage the learners to form a holistic view of their learning. In doing so, it will be possible to make essential links across subjects or units. For example, where a need to develop research skills has been identified in one curriculum area, targets that seek to improve research skills are likely to benefit learners' approach across their learning programme.

Effective target-setting strategies underpin the value of one-to-one tutorials, which provide a forum for meaningful dialogue between tutor and learner and the opportunity to reflect and discuss interventions.

The benefits of setting targets are twofold. First, learners gain the knowledge, skills and confidence to make decisions about their career options. Second, schools and colleges benefit from confident and motivated learners who are willing to stay in education post-16.

For more information about target-setting strategies and SMART targets see *Tutorials and target-setting in the effective delivery of vocational A-levels* (Jones and Duckett 2004).

Visual, auditory and kinaesthetic learning styles in individual learning plans

Individual learning plans should include the learners' visual, auditory and kinaesthetic profile from the induction process and this can be used as a tool for a conversation about learning styles and techniques that learners can use. Learners should be encouraged to work to their strengths, but also to strengthen their weaknesses. Teachers can discuss with learners how they learn best, particularly when involved with self-study.

Learner activity

Highlight the approaches to learning that you think you would find useful.

If you are a visual learner, you could become independent by :

- using lots of visual stimuli in workbooks, or notes with drawings or cartoons

- putting information around your bedroom at eye level or above with coloured Post-it notes, posters, postcards, diagrams, charts, key words, maps and so on

- using visualisations to remember information

- watching relevant DVDs or TV programmes, for example travel programmes for travel and tourism

- reading information and using a highlighter to pick out the main points

- using coloured pens, coloured paper and coloured pencils

- using tracing paper, for example, tracing over the management structures of businesses in applied business or the outline of a map for travel and tourism

- using mind maps

- using spider diagrams.

If you are an auditory learner, you could become independent by:

- using appropriate music to help learning

- engaging in discussion and debate

- using singing, chanting, poems, rhyme and rhythm, rap and jingles – putting information to a rhyme or poem

- reading passages out loud either to yourself or to others

- having background music on while studying

- joining a revision group and asking questions and responding to questions when learning information, especially when studying for a test or exam

- talking into a dictaphone or cassette recorder, recording questions into the dictaphone then playing it the next day and answering the questions

- playing information that has been recorded on a dictaphone or cassette when walking or travelling somewhere or when going to sleep at night.

If you are a kinaesthetic learner, you could become independent by:

- taking breaks, especially every 20 minutes

- moving around the room and using different parts of the room to put up coloured Post-it notes or posters (at eye level or above)

- using Brain Gym (see page 37)

- making a game out of information that you have to learn

- typing or writing key points on cards and putting them around the room

- using a computer

- making a model out of Plasticine, for example the structure of an engine.

Multiple-intelligences profile in individual learning plans

A copy of learners' multiple-intelligences profile identified in the induction process would be useful if attached to the individual learning plans. It should highlight learners' strongest preferred intelligence and their weakest. However, the most important multiple intelligence is the one that learners need to improve to be successful on their course. For example, if they have to do a lot of writing but have a low linguistic-intelligence profile, then the techniques they could use for improvement are undertaking word searches, crosswords or playing Scrabble. These are fun strategies that they can carry out when travelling on the bus or train, or at home, to improve their techniques and make them independent learners.

Some strategies to get learners to work to their strengths or to improve their weaknesses in the following multiple intelligences are:

Linguistic intelligence. Read stories, write stories, write a journal or diary, do or create word searches, do or create crosswords, play Scrabble.

Logical–mathematical intelligence. Do brain teasers, use puzzler books, use computers for spreadsheets.

Visual–spatial intelligence. Use mind maps, create doodles or symbols, do jigsaws, change paragraphs to pictures.

Musical intelligence. Play a musical instrument, learn through songs, rhyme, rhythm and rap, join a choir, play music while learning.

Bodily–kinaesthetic intelligence. Use movement, learn karate or tai chi to focus, play sports such as football or netball, use drama, use models, machines and handicrafts.

Interpersonal intelligence. Work in a team, play Monopoly and Trivial Pursuit, join committees, tutor others.

Intrapersonal intelligence. Take part in independent study or research, develop questioning skills, make a diary or journal, take time for inner reflection.

Revision groups

A very effective way for learners to learn information or to study is to get them to form revision groups. These can help learners to:

- develop self-discipline
- work as part of a team
- prepare work for the revision time
- organise their time
- take responsibility for their own learning.

Revision groups can also help create a camaraderie and learning ethic within the group. Learners should be allowed to choose their revision groups and teachers can discuss their progress at tutorials or in the lesson. Individual learning plans can have the names of the members of the revision group and the place and times of their meetings. Occasionally there may be one or two members of the class who are better working on their own and, provided that they are achieving, this is acceptable. For example, learners with a strong intrapersonal intelligence may work better on their own.

Learning, teaching and revision strategies

Brain Gym. Talk to learners about the benefits of Brain Gym. The brain needs oxygen to work at its peak and Brain Gym ensures that the blood circulates back up to the top of the head – the neocortex or thinking cap. Some forms of Brain Gym are listed below.

- Tap the head and rub the tummy for a few minutes and change hands and repeat.

- Put your finger in the air and write a figure of eight several times and then repeat with the other hand. Then draw in the air a lazy eight (draw the eight on its side), again with both hands for a few minutes each. This is a good exercise to help learners write more accurately and neatly.

- Put your right forefinger on the tip of your nose and your left forefinger on the tip of your right ear and then reverse, putting your left forefinger on the tip of your nose with the right forefinger on the tip of your left ear.

- Write the alphabet on an overhead transparency and ask the learners to say it while lifting either their right or left arm as indicated by instructions beside each letter.

- Stand up and cross your right hand over to your left shoulder and then your left hand across to the right shoulder several times. Then cross your right hand to your left hip and vice versa several times. Swing your left leg across to the right and both your arms across to the left. Then swing your right leg across to the left and both of your arms to the right. Lift your left knee and touch with your right hand and vice versa several times.

- With both hands write your name with your finger at the same time as though you were reading it in a mirror, or draw your house or any pattern in this way. This is a good exercise to help learners write their letters more accurately and neatly.

Brain Gym that can be done under exam conditions includes using the thumb and forefinger of the same hand to rub to the right and left of the sternum just below the collar bone.

Cassette recorder, CD or radio. Use cassettes to record learners doing a role-play such as a hotel reservation for travel and tourism, or play a radio broadcast, for example the War of the Worlds recording by Orson Welles in the 1930s for media production.

Coloured paper. This is good for:

- organising knowledge, for example in applied science, biology could be on blue paper, chemistry on yellow and physics on green

- putting units of work on different colours, for example Unit 1 on blue and Unit 2 on green and so on

- learning concepts and details, for example in one college the Marxism topic in media was written on red paper.

Coloured A1 sugar paper is useful for reviewing work and writing summaries that can be fastened to the wall.

Coloured pens, pencils and highlighters. These can be used to emphasise learners' notes. Highlight important concepts or aspects of notes that learners will need to be taught. Distribute handouts before the lesson and ask learners to highlight the key points at home. Then go over them in the lesson to teach learners how to highlight effectively, because some learners will have highlighted the whole page and others will have highlighted obscure words and not the important points.

Coloured postcards. Ask learners to summarise information onto coloured postcards and to write down facts and definitions on them. They can then put the cards in alphabetical order and take them round with them to look at during the day for learning information or revision.

Coloured Post-it notes. These can be used for reviewing work, writing summaries or they can have information written or drawn on them, for example, science formulae, and can be spread around the room at eye level or above.

Crosswords and ICT crossword programmes. Learners can make up their own crosswords or use an ICT programme to compose crosswords that can be shared with other learners.

Electronic encyclopaedia on the internet. Electronic encyclopaedia have a lot of written information presented in an informative way and cross-referenced. They are very fast to search and contain pictures, diagrams, animations and videos. The information can be saved and edited, which constitutes active learning.

Flip-chart paper. Use for group work with chunky pens and stick on the wall with Blu-Tack.

Mind mapping is a very effective learning and revision strategy. Memory works by creating a network pattern of associated ideas. A mind map can imitate this pattern and so the brain can relate to the information more easily. The advantages of mind mapping are:

- The main theme is in the centre and is therefore more clearly defined.
- The relative importance of each idea is clearly indicated – more important ideas are near the centre.
- Words linked to pictures can be remembered easily and engages both sides of the brain.
- Meaning is vital to memory and mind maps develop understanding and meaning as they make links between topics.
- Mind mapping gives an overview – the big picture.
- The use of pictures and drawings encourages creativity and engages both sides of the brain – pictures are remembered more easily than words.

Teachers can make mind mapping a kinaesthetic exercise by cutting out pictures to replace drawings and making a mind map out of pieces of card.

Mind maps can be used to:

- review the previous lesson
- summarise information and ideas
- present information that shows the overall structure of a topic
- bring together information from different sources
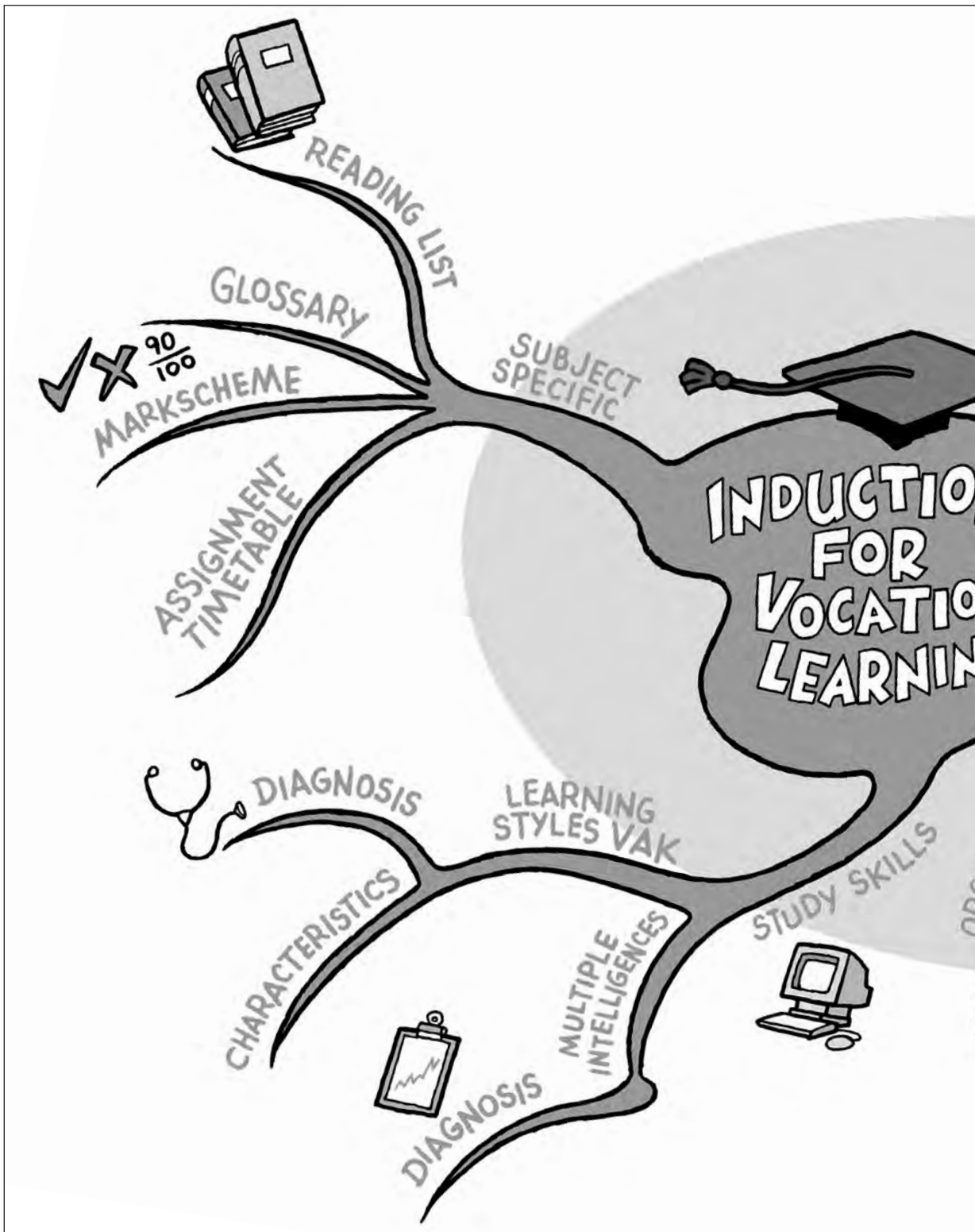- help learners think through complex problems.

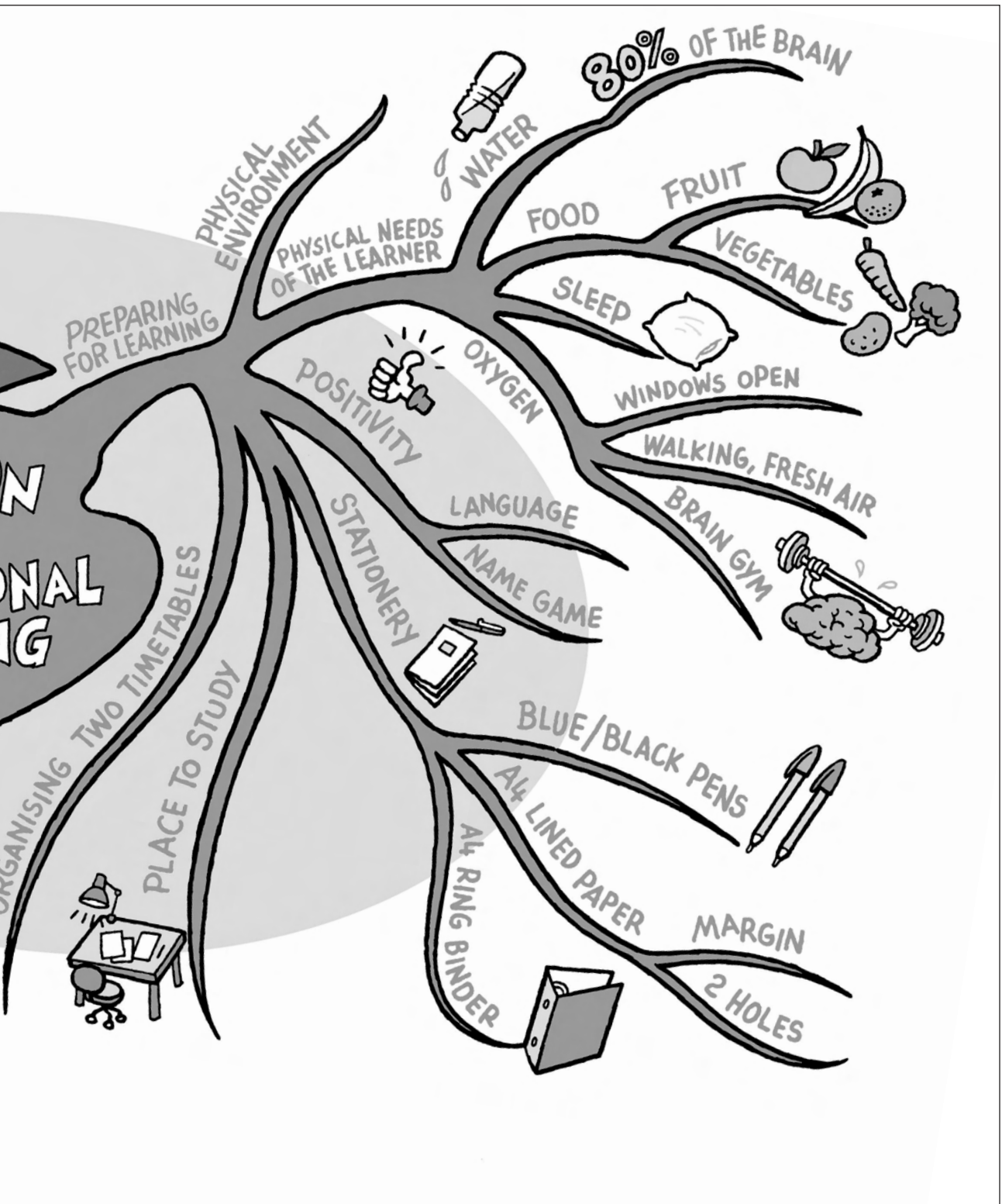Mind mapping expands thinking skills by developing:

- information-processing skills
- reasoning skills
- enquiry skills
- creative-thinking skills, for example in art and design
- evaluative skills.

When starting a mind map, teachers should ensure that they:

- always put the main theme in the centre of the mind map
- draw branches from the main theme, making sub-themes
- try to use single key words for each concept
- endeavour to create symbols or pictures for each concept.

If possible, cut out pictures or symbols for each concept and glue these on. This will be a kinaesthetic approach to mind maps. Figure 2 is an example of a mind map related to induction.

Figure 2. An example of a mind map

80% OF THE BRAIN

WATER

PHYSICAL ENVIRONMENT

PHYSICAL NEEDS OF THE LEARNER

FOOD

FRUIT

VEGETABLES

SLEEP

PREPARING FOR LEARNING

POSITIVITY

OXYGEN

WINDOWS OPEN

WALKING, FRESH AIR

BRAIN GYM

LANGUAGE

STATIONERY

NAME GAME

ONAL
NG

RGANISING TWO TIMETABLES

PLACE TO STUDY

BLUE/BLACK PENS

A4 LINED PAPER

A4 RING BINDER

MARGIN

2 HOLES

Mind-mapping activity

Ask learners to draw a mind map about a topic, using A4 or A3 paper, coloured pens and pencils. Get them to explain their mind map to the next learner who will then explain their own mind map. Both learners can add to their mind map anything they have not included. This is an excellent exercise for learners to realise that they do not know everything, that they can learn from other people and that one way of learning is to teach.

Mind maps are also beneficial for vocational learners because they can be used to:

- review the previous session

- brainstorm thought processes or ideas and concepts

- find out what learners know

- find out what learners still do not know, particularly when revising

- help learners learn by getting them to explain something to another learner

- summarise a lesson

- prepare work at home

- extend learners' knowledge

- create a kinaesthetic exercise.

Mind maps can be created on whiteboards, flip charts, A3 paper, overhead transparencies, computers, postcards, coloured A4 paper and A1 sugar paper.

Mnemonics. A mnemonic system can involve using a letter combination to stimulate the memory. Take the first letter of each word and put it into a word or phrase. Here is an example of a phrase mnemonic to help learners remember the names of the nine planets that orbit the Sun:

My Very Educated Mother Just Showed Us Nine Planets

Mercury
Venus
Earth
Mars
Jupiter
Saturn
Uranus
Neptune
Pluto

Music – the use of music in learning. The brain produces continuous waves, which vary in intensity and frequency depending on the state of brain activity. Some practitioners believe that the use of certain music can be an effective aid to learning.

Alpha music or baroque music is particularly good for learners when they are studying. This is sometimes known as the 'Mozart effect'. Alpha music such as the popular chill-out albums are good for getting learners to calm down and become mentally prepared for academic work.

Beta music, which is prevalent in some pop music, is particularly good for engaging the creative side of the brain and for when teachers want learners to be active.

There are different ways in which music can be used in a lesson.

Introduction to the lesson. Alpha music or chill-out albums can be playing for a short while as learners arrive for the lesson. One college does this when learners arrive for travel and tourism straight from sports studies.

Concentration music. Alpha or chill-out music can be played for a short period of time (10 minutes) as learners are concentrating on a particular piece of work. One college has used this in engineering.

Music-to-time activities. Alpha or beta music can be played while an activity is being undertaken. For example, play the music for seven minutes or the length of the time needed for the activity. One college has used this in business studies.

Music for creativity. Beta music is effective when teachers want learners to be active and creative, or while undertaking Brain Gym. Some colleges use beta music in art and performing arts work.

Music to end the session or to clear away an activity. If teachers want learners to undertake a task quickly, such as clearing a laboratory of equipment, play something like the original *Mission Impossible* theme or *William Tell* overture. One college has used this in lab work in science.

Personal writing or extended study. From the beginning of the course, learners should be encouraged to have an A4 folder with dividers for their work as this will help them to be organised. They can use the coloured paper for different topics as outlined earlier. One of the sections in the folder can contain the preparing for learning induction material, including their timetable, and the subject-specific induction material, which includes the reading list and homework / assignment timetable. Learners can transfer sections to other A4 folders when appropriate.

Reading, writing and note-taking (ICT). One of the biggest mistakes learners make is misreading questions. Auditory learners are particularly susceptible to misreading questions. Get learners to highlight the questions or read them aloud in their head twice before they pick up their pen. Other strategies include the following.

- Highlight key words and phrases.

- Make a brief skeleton answer before starting to answer a question that is worth a lot of marks or an essay-type question.

- Use coloured pencils, pens and highlighters on notes or for note-taking.

- Change a paragraph into a diagram.

- Summarise information or reduce notes to make them more effective.

- Use ICT. When typing notes make the best use of different sizes of fonts, italics and varied colours.

Rhyme, rhythm, rap, songs, chanting, poems and jingles.
Get learners to put information to a rhyme, poem or rhythm. They can do this as a homework assignment and teachers can read the rhymes out to the class and vote on the most effective one to learn from. Then photocopy it and give it out to all of the learners.

Word searches. In addition to learners doing or creating word searches, there are computer programs that can be given the necessary words for a subject that will then create the word search.

Effective assessment strategies and marking work effectively

Part of effective assessment is as much about how we say what we do as the message we are trying to convey. For example, we know that hope is a great motivator for learners. Hope is having the will and the way in which to accomplish goals. When handing out work and assessing or marking work teachers could:

- express confidence in their ability to help learners achieve

- express confidence in their learners' ability to achieve

- give feedback that is specific and shows what can be done to improve the work. Focus on the skills that learners need. When learners submit written work ask them to leave a margin on the left-hand side of the page, so that notes can be made in this space

- mark work in pencil rather than red pen and then the learners can rub out what they need to do when they have completed it and keep the positive input on their work. For many learners the sight of lots of red ink will act as a barrier to learning

- as far as possible, only use positive language such as 'you can pass this course if you do…'

- avoid use of the word 'but' when either verbally praising a learner or marking work. When learners hear the word 'but' they forget all of the positive things a teacher has said and concentrate on the negative. Try to use words such as 'and' or 'however' or 'this work would have been improved by…'

- draw smiley faces on marked work or use stickers, as everyone likes acknowledgement that what they have produced has been worth the effort

- get learners to mark each other's work. Learners like the immediate feedback of short tests and it helps reinforce knowledge. They could mark each other's written work in pencil and discuss the content. This exercise could be done with the learner's name on the work or on photocopies of work without the learner's name on it

- debrief the whole class in the next lesson rather than repeat teacher-written comments when a common error occurs in work

- have a culture of high expectations.

Raising motivation, confidence and self-esteem

Learners' motivation, confidence and self-esteem can be raised by:

- building a professional relationship with learners, treating them as individuals and greeting them with a smile as they enter the room or whenever you see them around the building

- creating a pleasant and stimulating learning environment, including putting learners' work on the walls along with the day's schedule if it varies

- finding something unique and positive about each learner and pointing it out to them, and taking an interest in their outside activities

- recognising accomplishments formally and informally

- developing a culture of shared responsibility and emphasising collective achievements

- knowing and using learners' names

- putting up a photograph and a simple biography of each learner in a public place

- promoting positive role models from the school, college or local community

- having positive affirmations by role models around the building

- including the success of former learners in newsletters

- connecting the learning with case studies or the media, eg have a media board with relevant newspaper articles relating to vocational courses in the corridors

- providing a variety of inclusive group activities, such as field trips, to make them feel that they belong. Arrange for all the learners to go somewhere such as Chessington Zoo at the beginning or end of a term and get them to raise some of the money through school or college activities

- using mentoring schemes with Education Business Partnerships (EBPs).

One EBP has a well-known computer company whose staff mentor learners on ICT courses. The computer staff e-mail learners regularly and let them know about the types of jobs available in the industry and keep them up to date with the latest technology.

Teachers' team meetings

Regular team meetings are essential for reviewing learners' progress and for sharing good practice among teachers. Ideally team meetings should include all of the teachers who teach on a particular course, including tutors and learning support assistants. On the agenda of every meeting should be a period of time for reflecting on and sharing good practice. Discussions about learners who are really making good progress and those learners who are at risk of not achieving could also be on the agenda.

Learners' review weeks and meetings

Many institutions have a period of time – from a couple of days to a week each term – when learners discuss their individual lesson plans and have a review of their progress. Teachers may have one-to-one discussions with learners in private while the rest of the class continues with their work in the classroom ; or this review could take place during a 'reading week'.

When the teachers have written on the individual learning plans after discussion with the learners they will send the plans to the coordinator. The coordinator can either be the tutor or the programme manager. Those learners identified at risk of not achieving on their course are invited to a meeting for 10 to 15 minutes with all of their teachers to discuss how they can best support them. Ideally the room for the meeting should be informally set out. These review meetings could take place over one or two days and would entail teachers leaving their other learners to work independently, perhaps with another teacher covering the session. The teacher / tutor coordinating the learner's programme would have an overview of the learner's progress and so be able to set achievable goals for him or her to obtain. The review meeting has the advantage that everyone who is involved with the learner can have a cohesive approach to help him or her achieve.

Conclusion

Throughout this book a range of learning techniques and strategies is described based on accelerated learning, emotional intelligence and good practice in schools and colleges. It is a menu of ideas, some of which you may wish to try with your learners.

We can help our learners to become successful on vocational courses by providing a variety of learning strategies to meet individual needs and to empower learners to help themselves.

To empower learners we can give them the necessary knowledge and skills they need to build their confidence. As their confidence and self-belief develop, they will feel more in control of their learning. In this case, knowledge truly is power.

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Appendix : Good practice providers

The good practice identified throughout this publication has been drawn from the following colleges and an EBP:

City College Birmingham

City College, Southampton

Croydon College

Hastings and Rother New College

Highbury College, Portsmouth

Knowsley Sixth Form College

Lowestoft College

Portsmouth and South East Hampshire Education Business Partnership

Rother Valley College, South Yorkshire.

Vocational Learning Support Programme: 16–19

This book offers learning and teaching strategies pertinent to vocational learning that focus on the needs of the individual student. There are strategies for teachers to employ at all stages of a programme from induction and delivery to revision and assessment. Many of the techniques suggested have been tried and tested by co-author Marilyn Tatarkowski, who won the 'Edexcel Outstanding Lecturer Award' in 2001.

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