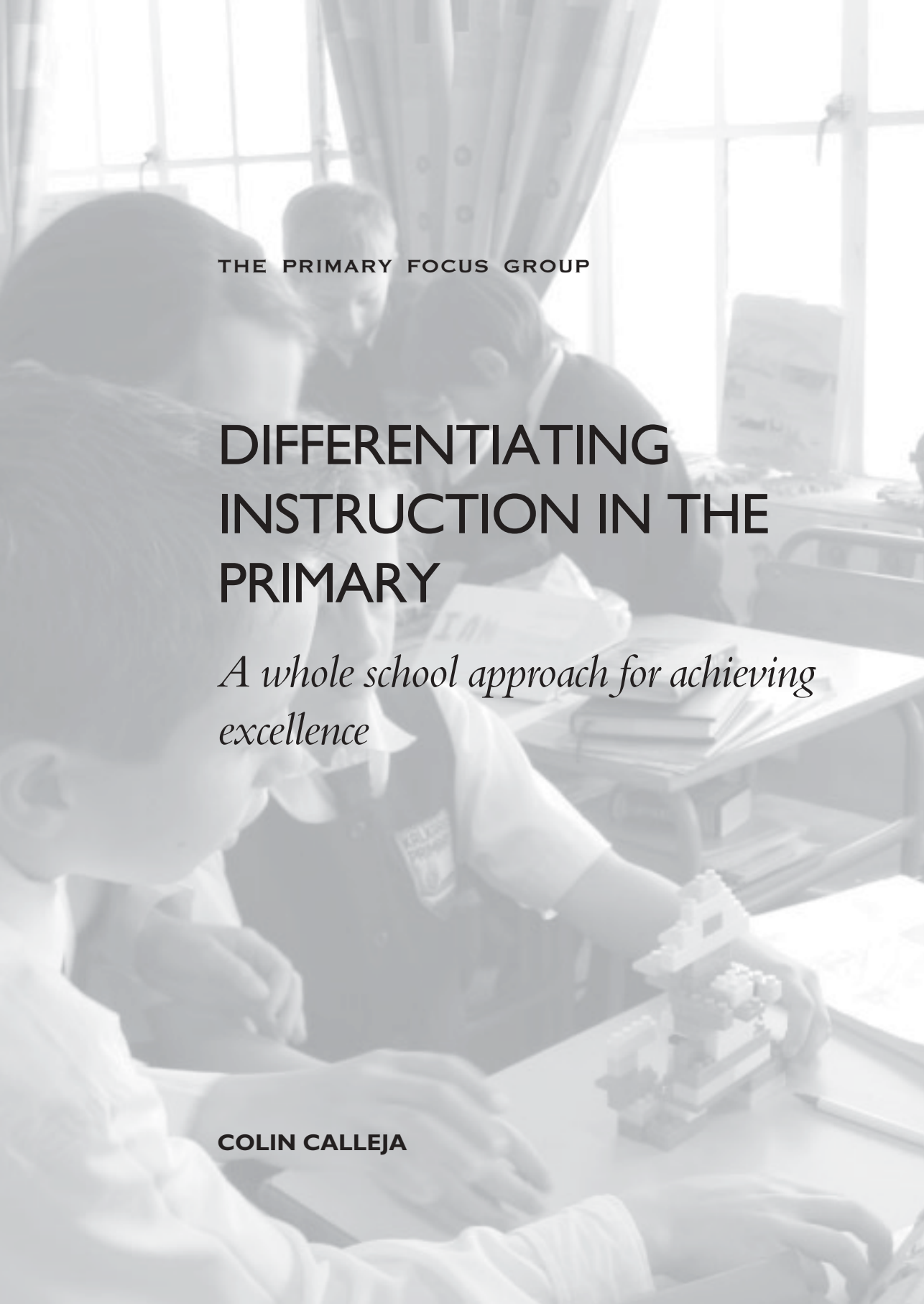

THE PRIMARY FOCUS GROUP

DIFFERENTIATING INSTRUCTION IN THE PRIMARY

A whole school approach for achieving excellence

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Contents

Foreward

Traditionally educators have operated within an atomistic worldview that segments knowledge into subjects. Within the traditional paradigm of curriculum development educators act as if knowledge is a static and fixed product that can be reproduced through generations. Conservative, classroom environments often reflect passive consumption of information transmitted by the fount of knowledge. Too often, traditional teachers act as if there is one answer to every thing, arrived at in a well defined and "right" way.

Research around learning styles, learning patterns and multiple intelligences highlights the fact that learners differ in the ways that they interact with, produce and assimilate knowledge. Empirical research and experiential knowledge also confirm that knowledge production is greatly affected by home, peer and school cultures. The main implication of such a huge corpus of research is that Principle 1 of the National Minimum Curriculum document - Quality Education for All - can only be guaranteed through an education process that is sensitive to the individual educational needs of all children in the classroom.

Colin Calleja takes up this challenge and provides the teaching community with a handbook that promotes strategies that teachers working in a range of educational realities can use with a view of providing relevant learning experiences for all students in their classes. Built around the importance of getting to know students as learners, this work is an excellent hands-on, reference point for genuinely inclusive schooling communities. Teachers willing to differentiate their teaching will find in this handbook a convincing ally.

Calleja's work also constitutes an ideal, reflective tool. This work provides educators with benchmarks for self-evaluation in the area of differentiation. For schooling communities emerging from a history of traditional approaches to teaching and learning, the handbook not only directs but also engages teachers in a critical assessment of their quest to address individual learning needs.

Moving from rote learning to differentiated teaching constitutes a paradigm shift. School cultures and policies, ways of thinking about learning, teaching approaches and assessment procedures are transformed to address the needs, abilities and interests of students. Differentiated teaching is about putting children first. It is a process and not a recipe, one of many alternatives and not the only route to teaching and learning.

The great merit of this handbook lies in the fact that this work focuses mainly on the learning community. This material was developed to facilitate and

support inclusive education within schools and classrooms. It is meant to help teachers become better at teaching all students irrespective of industrial relations, official documents and bureaucracies. Children's lives are too precious to wait for leaded structures to move.

Carmel Borg
Dean
Faculty of Education

Message

Learners will always remain at the centre of all efforts undertaken to improve the quality of education. It is not possible to plan for improvement if the learner is not the essence of the way forward. The latest research is pointing clearly that the learner needs to be supported by professionals in an ordered pleasant atmosphere. The teaching staff is to be prepared to awaken the urge to learning by guiding the class to enquire and discover, not only as a community but as individuals. On the other hand, the teacher requires to exercise self-discipline to overcome the urge to lead the learner too much by the hand, instead of stepping behind and direct him towards the chosen goal by leaving space for discovery. The way ahead in such a learning ambiance is never easy for both teacher and learner. They have both to understand one another and build strong bridges of understanding that lead on the one hand to the discovery of learning and on the other hand to a deeper understanding of one's profession.

The present publication is to be encouraged and the author is to be praised for his study. In an ever changing world, education needs to remain stable in its ideals but not necessarily in its methods to guide the learner. The philosophy supporting teaching has remained constant: namely to give the learner a life-long experience that will help him lead a more meaningful life where the urge for learning is constant and where the quality of life is always improving. The child is the father of man. The importance given to diversity if well developed helps the learner to fulfill himself better not only academically but in the fullness of his personality. Diversity when acknowledged leads to better understanding and collegiality. Diversity when respected avoids negativity and opens up wide the horizons of positive attitudes.

Differentiated teaching might be the answer to giving the learner his entitlement.

Dr. Cecilia Borg
Director General
Education Division

Message

DIFFERENTIATING INSTRUCTION IN THE PRIMARY SCHOOL

The document drawn up by the Focus Group on Primary Education and authored by Mr Colin Calleja is a welcome tool that should facilitate differentiated teaching.

This tool embodies one of the basic principles set out in the National Minimum Curriculum, namely respect for diversity: *Students learn differently: different students learn differently what is being taught. There are those who learn best through concrete experiences; others who learn best through abstract thinking and concepts. Some students prefer didactic methods, others enjoy learning on their own, still others prefer to work in groups* (Creating the future page 31). The response of the Primary Focus group to this demand is this book on differentiation.

The approach used in this book reflects the methodology adopted in the Let Me Learn process where the teacher works closely with the student to reach a better understanding of one's learning patterns.

It is in essence an approach that puts the child at the centre where teachers have to adapt the curriculum to the learner's needs rather than attempt to fit the learner to the curriculum. This is the same philosophy behind the introduction of level descriptors which aim at establishing the level of the learner with a view to pitching teaching at the levels of the learners.

One trusts that teachers will find these tools helpful in the demanding but rewarding role of teaching.

Raymond J Camilleri
Director, Curriculum Management

Message

The origins of this handbook came from an initiative of the Primary Focus Group that, after analysing the National Minimum Curriculum and the related documents, took upon itself as its main task to disseminate the principles of differentiated instruction in Maltese Primary schools. After analysing the present practice in schools and the demands set forth in the National Minimum Curriculum to "provide the context wherein ALL children without any exception" can learn, a draft policy document was written and distributed to all Primary schools for discussion and feedback. The heads of schools were asked to give their written feedback and in November 2002 all Primary Heads of school were convened for an introductory conference on differentiation. Here the Heads of school were presented with the main tenets of differentiated instruction and had the possibility to discuss the implications of adopting the principles set forth in the draft document. After analysing the feedback and the suggestions, both those sent by schools prior to the conference and the discussion minutes taken during the conference, a second draft was written, analysed and discussed both among the Primary Focus Group and with the National Curriculum Council. A copy of the final document is to be found in this handbook.

A suggestion made by many Heads of school was the need to have some support to implement such policy. It was therefore suggested that apart from the planned training, a handbook should be written. The handbook would contain some resources that schools can use to build their own school policy and ideas to implement differentiated teaching.

Mr. Alfred Mifsud
Chairperson
Primary Focus Group

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SECTION I

Differentiation in the Primary
A policy document

PREAMBLE

The purpose of education is to ensure that every child gains access to the knowledge, information, skills and attitudes that give him/her a 'continued capacity for growth' (Dewey 1916). This ethos is upheld by the *National Minimum Curriculum* which invites educators to establish the child, understood as a specific individual and at the same time a member of different groups, as the axis around which educational processes should gravitate. Hence, it promotes policies aimed at the educational development of each learner, both as an individual and as a member of a group. In the light of this, schools should seek to accommodate children who have different interests and abilities, and who come from different backgrounds.

> The National Minimum Curriculum enjoins that schools:
>
> *"should provide the context wherein all children, without any exception, participate in the continuous enhancement of personal and collective knowledge and the development of those attitudes and skills which the community regards as basic and necessary for a person's holistic development."*
>
> *(Principle 1, pp.29-30)*

This entails that a framework be established which enables schools to develop their own strategies and hence be able to meet the different needs of their particular students-cohort. It also advocates the need for different stakeholders to collaborate with one another. This creates an environment wherein responsive teaching may take place and skills may develop continuously.

DEFINITION

> *Differentiation is an ongoing process of classroom intervention that addresses the strengths, needs and knowledge of individual pupils.*

A differentiated learning environment provides students with multiple options and approaches that enable them to process information and understand and interpret knowledge in more than one way. Differentiation also accepts and encourages the legitimacy of different modes through which children may exhibit what they have learnt.

Hence, 'differentiation' necessitates multiple approaches to teaching and learning. These should be proactive, inclusive and constructivist, and require an understanding of the learner's interactive learning patterns.

MAJOR ASSUMPTIONS

Differentiation is based upon the following pre-suppositions:

1. Children belonging to the same age group may differ in their readiness to learn, interests, ways in which they access knowledge, experiences and social and domestic backgrounds

2. These differences are significant enough to make a major impact on the manner in which children learn and the rate at which they do so. This means that the support to enhance their knowledge must also be different.

3. Children will learn better if challenged to undertake tasks that are slightly more complicated than the ones they can already do on their own.

4. Children will learn better if they are able to relate what is taught in class with their interests and familiar experiences.

5. Children learn more effectively if a sense of community is created within the classroom and the school as a whole. In this way, the school shows that it respects and understands its students.

6. Learning should take place within a collaborative environment.

7. The major goal schools ought to uphold is that of maximising the learning potential of each child.

THE PROCESS

A differentiated curriculum entails focusing on each child and considering him/her as an individual member of different groups, rather than an undifferentiated constituent of a collection. It necessitates a learning environment in which practices and exercises are tailor-made to meet the range of needs of the children in the particular class. This involves planning techniques that involve differentiation and three-fold intervention programmes aimed at the entire class, groups and individual students.

This requires differentiation in the content, processes, resources, grouping, pace and products that constitute education. Teachers should be aware of the wide range of teaching strategies they can use when planning instruction. They should also be able to understand the wide range of

children learning modalities and hence determine the standard a particular learner has attained. They should also be able to perceive and discover students' interests and to assess their levels of motivation.

All this influences the amount of work children would be expected to carry out and the homework they would be able to do. It also reveals the learners' ability to develop essential skills, like listening skills, presentation skills, collaborative skills and independent learning skills. Hence it is important to personalise learning in different ways. Teachers ought to be encouraged to use experimental, inductive hands-on and active learning.

> *Differentiation can only be applied successfully if children play a central role in the processes it entails. Hence, children should acquire skills related to self-directed learning and be made to assume responsibility for their own learning. Teachers and schools ought to invest time and energy in teaching skills that empower learners to take control of their own learning.*

ASSESSMENT

In line with the National Minimum Curriculum, we advocate assessment policies that reflect the above principles. Assessment ought to be considered primarily as a learning tool through which learners can themselves measure their progress. It should enable teachers to plan efficient instruction that enables students to progress. Hence, we recommend the use of formative assessment. We encourage schools to issue and promote assessment policies which, apart form summative tests and examinations, include portfolios for each individual student. This would relate to the student's needs, skills and progress.

SCHOOL DUTIES AND RESPONSIBILITIES

Schools ought to promote policies aimed at supporting differentiation and encourage practices that cater for the full range of aptitudes, skills and abilities of learners. Schools should also arrange their physical environment in a manner that is at the same time student-friendly and conducive to learning. As to finances, adequate funds should be allotted to teaching resources that encourage teachers to differentiate instruction. Finally, a flexible administrative structure, which supports differentiation and encourages initiatives that focus upon the learner's diverse needs, is essential to the functioning of any such policy.

TEACHERS' DUTIES

Teachers ought to acknowledge diversity and facilitate learning. Within a differentiated classroom teachers should be competent in:

1. Identifying the needs and learning strengths of individual pupils. They should build a formative profile of each learner and of the class as a whole.

2. Planning instructional and learning experience which cater for the learning needs identified.

3. Supporting pupils in their learning

4. Assessing pupils' learning processes and their output.

Teachers are responsible for creating classrooms in which:

1. Lessons are focused on clear and attainable learning objectives. Tasks are hence considered as means through which a pre-set learning objective can be achieved.

2. Once the children's learning objectives are attained, assessment tasks are identified.

3. Collaborative and co-operative work prevails

4. Different modes through which a task can be carried out are encouraged.

5. Children are encouraged to take control of their own learning.

PARENTS' DUTIES

Parents' should be encouraged to collaborate with school administrators and teachers. The National Minimum Curriculum encourages parents to help and support the implementation of its suggestions in a variety of ways. Parents should:

1. Dialogue with teachers and educational authorities

2. Participate in educational projects and research which enhance educational services and the implementation of the curriculum.

3. Provide the school with information that can help their child develop.

4. Contribute their knowledge and skills and dedicate some of their free time to the school.

(NMC Principle 14 pp 4-5)

Parents are to be considered as important partners through whom the schools can improve qualitatively the educational service they offer.

STRATEGIES FOR MANAGING A DIFFERENTIATED CLASSROOM

Teachers should be encouraged to use classroom management strategies that support the differentiated needs of children. Such strategies include:

- The use of multiple texts and supplementary materials;
- Use of ICT and interactive computer programmes
- Interest centres
- Learning contracts
- Use of tasks and educational products designed with a multiple-intelligences orientation and respectful of the various learning profiles
- Group investigation
- Small group instruction
- Varied work products as a means of assessment

TRAINING AND AWARENESS

For these goals to be attained, an extensive awareness and training programme should be adopted. All schools should be made aware of the benefits of differentiation and the ensuing need to make all stake holders aware of the issue related to it.

The objectives of the training programme should include:

1. The discovery and articulation of the rationale for differentiation. Differentiation should be based on the needs of pupils;

2. The learning and application of strategies for differentiation;

3. The development of appropriate communication techniques related to differentiation, through which children become aware of what is going on around them;

4. The development of appropriate skills to diagnose learning needs;

5. The evaluation of the different learning strategies individual teachers and their colleagues apply;

6. The development of the skills required to:
   a. Identify the learner's mode of learning;
   b. Mentor the student to use his/her combination of learning patterns in order to optimize choices from the repertoire of learning strategies available.

CONCLUSION

Schools ought to consider differentiation and the fair allotment of educational experiences as moral and legal obligations that every educational partner has towards the children that attend our schools. We believe that only those schools that uphold and apply the principles of differentiation can be truly effective.

SECTION II

Approaching Differentiation: Resources and Ideas for Differentiating Instruction

CHAPTER 1

DEVELOPING A SCHOOL BASED POLICY FOR DIFFERENTIATION: SOME STEPS TO CONSIDER

A school based policy built on sound educational principles is of the utmost importance when one is thinking of developing practice to meet the targets set by the National Minimum Curriculum in a particular school with its specific circumstances and culture. It is therefore the responsibility of the Senior Management Team to determine the school's differentiation policy and approach, to establish the appropriate provisions and to mentor differentiated practice within the school. On the other hand, for such an endeavour to be successful, one must keep in mind that the development of a differentiation policy is a collaborative process that should involve all the staff, pupils and parents in its formulation. All the stakeholders should be familiar with the contents of the policy on differentiation and relate its guiding principles to their everyday practice.

It is also of the utmost importance that the school's differentiation policy reflects the provision made for all pupils, from those who are facing academic challenges to the gifted and talented pupils. Below we suggest the stages that one should go through in developing a school policy on differentiated practice.

STAGES IN DEVELOPING A SCHOOL POLICY ON DIFFERENTIATION

The process should start with establishing the current position in relation to culture, policy and practice. A valuable audit tool would be *Creating Inclusive Schools: Guidelines for the Implementation of the National Curriculum Policy on Inclusive Education* (NCC Focus Group for Inclusive Education 2002). You also need to refer to the general principles set by the National Policy on Differentiation found in this same Handbook and identify stages and priorities that need to be targeted in the school development plan. This handbook is also producing a self-audit questionnaire to help you analyse your present position in regard to differentiation.

This policy should also refer to and review other related school policies such as the teaching and learning policy, the policy on behaviour and the assessment policy.

WHAT SHOULD A SCHOOL DIFFERENTIATION POLICY CONTAIN?

The following are the important divisions that a school policy on differentiation should include:

General Rationale or Preamble: how the policy links to the school's general aims, ethos and mission statement and how it relates to the National Policy on Differentiation; Why the policy is necessary.

Aims and objectives: guiding principles for provision of differentiation and objectives employed to achieve differentiated practice.

Definition of differentiation: This will reflect national and local definitions in relation to the school's context.

Coordinating Differentiation: name the responsibilities and roles each stakeholder will have in the implementation and monitoring process of this policy.

Provision and resource allocation: specify strategies and teaching and learning approaches which can be used to support differentiated learning; specify any specialist expertise, equipment, resources that the school has to provide in order to make the curriculum accessible to all pupils. Make an outline of expenditure breakdown.

Assessment procedures: arrangements for assessment, identifying and targeting underachieving groups, groups of pupils who are gifted; monitoring and reviewing procedures to assess pupil's progress.

Professional development: outline of how the school will provide training for teachers and other support staff.

Parent partnership: arrangements for fostering positive parental links and information meetings for parents; outline of how to address parental concerns/ complaints.

Monitoring of progress: The policy should include success criteria that would be used to monitor positive impact upon the school's culture, practice and provision, and as a result, enhancement of curriculum access, leading to a marked improvement in pupil attainment. A strategic plan with time-lines should also follow to make sure that major targets are achieved.

The above divisions should be carefully researched and written in a format that is easily understandable to all stakeholders. When writing such a policy one should make sure that the stages are realistic and take into consideration any culture change that must precede major shifts in the teaching and learning

environment. One should also make sure that proper training of the teaching staff is properly planned. One should also state whether the training is going to be organised in-house or whether teaching staff members will be encouraged to participate in national training courses.

One of the first things that should be done in establishing a school's differentiated learning policy is auditing the present practices in all those areas that will eventually need to undergo changes. What follows is an audit tool that one may use to accomplish the above.

CHAPTER 2

DIFFERENTIATED LEARNING AND TEACHING: WHERE WE STAND CHECKLIST FOR SELF ASSESSMENT

The primary aim of this chapter is to assist the school management team, teachers and other members of the school community in reviewing their own teaching and learning environments, and stimulate discussion towards developing strategies to raise standards for student achievement. These checklists[1] could be used together with other available resources already referred to above to help the school community draw a clear picture of where the school stands in its teaching and learning practices and relate them to what is expected by the National Minimum Curriculum. This self-auditing tool will thus help the school community to identify those areas that need to be targeted to achieve the desired outcomes for the benefit of the pupils and the whole learning community.

[1] These checklists are adapted from Brakeford, B. (1997) *The Whole-School Audit: Development Planning for Primary and Special Schools.* David Fulton Publishers. London. And (Unknown author) *Tools for Schools: Differentiated Instruction - A Tool for All Students*

CHECKLIST 1 RESPONSIVE LEADERSHIP					
		Always	Frequently	Sometimes	Never
1.	Does the school have a school development plan?				
2.	Does the school development plan clearly state the need to differentiate instruction?				
3.	Does the school development plan suggest any strategies and approaches to differentiate instruction?				
4.	Is the school senior management team providing a strong leadership by providing clear educational direction for the work of the school?				
5.	Is the school leadership monitoring, evaluating and supporting the teaching and curriculum development that goes on in the school?				

		Always	Frequently	Sometimes	Never
6.	Does the school have clear policies on teaching, learning and assessment?				
7.	Does the school have a sense of purpose, which is evident in all its work, and the involvement of all the staff?				
8.	Does the school set high expectations for achievement for all pupils in all subject areas and all grade levels?				
9.	Is the school's vision for success of all pupils communicated to all school staff, pupils and parents?				
10.	Does the school have an effective learning environment, good relationships and quality of opportunity for all pupils?				

		Always	Frequently	Sometimes	Never
11.	Is the school aware of the weaknesses, both at school and classroom level?				
12.	Has the school formalised a strategy to overcome its weaknesses?				
13.	Is the teaching staff aware of the diversity of pupils' modes of learning and does it base their instruction on these modalities?				
14.	Are the teaching and learning strategies and approaches to achieving high academic performance collaborative and part of a team effort to meet all pupils' needs?				
15.	Are new teachers and other support staff introduced to the strategies and approaches promoted by the school?				

		Always	Frequently	Sometimes	Never
16.	Are techniques for differentiated instruction used as part of classroom instructional strategies?				

CHECKLIST 2 STAFFING AND STAFF DEVELOPMENT					
		Always	Frequently	Sometimes	Never
1.	Has the school identified the strengths of its teaching and support staff?				
2.	Has the school identified the shortfalls of its teaching and support staff that may affect the standards and quality of education provided?				
3.	Are all the school's teaching staff appropriately trained for the year group they are teaching?				
4.	Is the school benefiting from the services of curriculum support staff?				
5.	Is the support staff experienced and qualified for the type of support they are expected to give?				

		Always	Frequently	Sometimes	Never
6.	Does the curriculum support staff work closely with regular classroom teachers in planning and recording of pupil's progress?				
7.	Are teachers provided with information, materials and training about differentiated teaching strategies?				
8.	Is the expertise of the teachers who use differentiated strategies used as part of the school's staff development efforts?				
9.	Are opportunities provided on a regular basis for teachers to share strategies of differentiated teaching in the their classrooms?				
10.	Do teachers provide input on the staff development they need to meet the diversity of learning needs in their classrooms?				

		Always	Frequently	Sometimes	Never
11.	Do teachers receive training on how to implement differentiated teaching strategies?				
12.	Are the skills of curriculum support staff used to help develop instructional strategies for meeting the needs of pupils in an inclusive classroom?				
13.	Are staff development activities on-going and related to the identified needs of the pupils?				

CHECKLIST 3 CURRICULUM					
		Always	Frequently	Sometimes	Never
1.	Does the school curriculum give due importance to extra-curricular provisions such as sports and creative arts?				
2.	Do teachers plan for understanding and skills apart from knowledge in their curriculum planning?				
3.	Do teachers adequately plan their teaching methods and organisational strategies to achieve curricular goals?				
4.	Does the school promote active involvement of ALL pupils in their learning?				
5.	Are all the pupils continuously challenged to improve their thinking skills in all subject areas?				

		Always	Frequently	Sometimes	Never
6.	Do teachers focus their instructional efforts on individual learners including pupils with disabilities?				
7.	Are all pupils provided with interdisciplinary learning experiences to enable them to make connections across subject areas?				
8.	Are the teachers designing instructional activities that connect pupil learning to real-life experiences?				
9.	Are all pupils provided with challenging work that enables them to strive to reach their full potential?				
10.	Does the school promote cooperative learning experiences to help pupils strengthen both their academic and their social skills?				

		Always	Frequently	Sometimes	Never
11.	Does the school recognise the diversity of students and the different learning modes in the adopted teaching and learning strategies?				

CHECKLIST 4 PLANNING					
		Always	Frequently	Sometimes	Never
1.	Do the school plans focus on pupils' achievement and establish specific goals for the educational improvement of all pupils?				
2.	Does the school planning cover all the areas of learning for the primary years?				
3.	Is the school curriculum planning inspired by the principles and objectives set by the National Minimum Curriculum?				
4.	Do the school plans build on successes and strengths as models for activities that could be used in areas in need of improvement?				
5.	Do the school plans set clear priorities and high expectations for achievement for all pupils and devote resources to meet the priorities?				

		Always	Frequently	Sometimes	Never
6.	Do the school plans include professional development activities to ensure that teachers can address the learning needs of a diverse pupil population?				
7.	Are the school's plans aligned with the national standards?				
8.	Does the school monitor and evaluate plan implementation to determine if the set goals are being achieved?				
9.	Do teachers' plans have clear objectives and summaries of what pupils will do and the resources they will need?				
10.	Do teachers' plans show how knowledge and understanding can be extended and work adapted to suit pupils who learn at different rates?				

		Always	Frequently	Sometimes	Never
11.	Do teachers assess pupils' work thoroughly and constructively and use assessment to inform their planning?				
12.	Do teachers' learning objectives refer to learning in terms of what pupils will know (knowledge) understand (concepts) and be able to do (skills)?				
13.	Do teachers' objectives define learning outcomes for pupils (NOT simply pages from textbooks to be covered)?				
14.	Are learning objectives specific and do they provide for the range of abilities and needs in a class, deriving from the programme of study?				
15.	Are the objectives observable, measurable and assessable (where possible) and frequently begin with 'to' e.g. to know..., to be able to..., to understand...?				

		Always	Frequently	Sometimes	Never
16.	Does the school have a collection of schemes of work aimed at children of different ages and abilities that can be used as guidance for teachers?				

CHECKLIST 5 LEARNING ENVIRONMENT AND USE OF RESOURCES					
		Always	Frequently	Sometimes	Never
1.	Does the school seek ways to ensure that the maximum amount of time during the school day is devoted to teaching and learning?				
2.	Do teachers assign independent projects to pupils that build upon their interests and motivate them to learn more about specific topics?				
3.	Do teachers establish interest centres or interest groups to make learning accessible and appropriately challenging for all learners?				
4.	Do teachers use flexible grouping of pupils to adjust to different preferred learning modes and interests of diverse pupils?				

		Always	Frequently	Sometimes	Never
5.	Does the school provide support programmes to help all pupils achieve the learning standards?				
6.	Does the school seek the services of volunteers, such as parents, to support the pupils in their learning?				
7.	Does the school team up with other community services to provide supportive assistance to all pupils including those with special needs?				
8.	Are the school's learning resources appropriate in range, quality and quantity?				
9.	Is the school library adequately resourced, with age-appropriate materials and books, enabling it to play a central role in supporting learning?				

		Always	Frequently	Sometimes	Never
10.	Does the school's provision of I.T. resources (hardware and software) across the curriculum adequately support learning?				
11.	Does the school effectively utilise resources beyond the school, including museums, galleries, historical sites, etc, to enrich the curriculum?				

CHECKLIST 6 PARENTAL AND COMMUNITY INVOLVEMENT					
		Always	Frequently	Sometimes	Never
1.	Does the school make parents feel welcome in the school?				
2.	Does the school have clear lines of communication with parents?				
3.	Does the school provide information to parents about the instructional strategies used in the classrooms?				
4.	Does the school actively help parents to understand the curriculum and the teaching methodologies?				
5.	Does the school seek input and the insights of parents about their children and the types of learning activities they enjoy?				
6.	Are parents invited to serve on school committees that plan educational programmes?				

		Always	Frequently	Sometimes	Never
7.	Does the school keep parents informed about their child's progress?				
8.	Does the school develop instructional activities that parents can use at home to reinforce learning which takes place in the school?				

		Always	Frequently	Sometimes	Never
9.	Does the school have examples of records of regular home-school contacts, such as reading diaries?				
10.	Does the school encourage the use of reading diaries or logs and other means of maintaining contact with parents over pupils' work?				
11.	Does the school provide professional development activities for teachers that help them work with parents to become more involved in their children's education?				
12.	Does the school consider parents' work schedules and family commitments when scheduling meetings?				
13.	Has the school considered ways of involving community members to help meet the academic needs of diverse learners?				

		Always	Frequently	Sometimes	Never
14.	Are the school's progress reports to parents written in a way that they can understand and get clear help about what they can do in order to support their child?				

CHAPTER 3

INDICATORS OF A QUALITY PRIMARY PROGRAMME

In the preceding chapter a self-audit tool was offered to help us draw a clear picture of where we stand as a school in differentiated learning practice. Such a tool could also highlight certain areas that need to be improved in order to create a learning environment that aims at helping all learners succeed in their quest for learning. As we know there are many facets that one needs to look at and analyse in order to make the school a truly inclusive school. In this section we will be listing indicators[2] which schools should see to and start working towards. This chapter is divided into two main sections, the learning environment, and Curriculum and Instruction. In the first section a list of indicators for the physical and emotional environments will be given. In the second section a list of indicators for teaching and learning will be provided together with a list of indicators for assessment.

[2] Adapted from:
Early Elementary Resource Guide to Integrated Learning.
The University of the State of New York, The State Education Department.

THE LEARNING ENVIRONMENT

Emotional Climate

		Always	Sometimes	Rarely	Never
1.	The atmosphere is free from pressure and constant hurry.				
2.	All pupils feel valued.				
3.	Pupils trust and respect their teachers and other classmates.				
4.	Teacher and other staff respect each other and each pupil.				
5.	Pupils are helped to make friends and share ideas.				
6.	Pupils are encouraged to express themselves through conversation and interaction with others.				
7.	Teachers listen attentively to what pupils have to say and encourage pupils to listen to one another.				
8.	Pupils are given time to talk both with their teacher/s and with each other.				

		Always	Sometimes	Rarely	Never
9.	Parents are welcome as partners in the learning process.				
10.	Teachers acknowledge and reinforce positive pupil behaviour.				
11.	Teachers and school administration appreciate individual differences and they encourage all pupils to respect everyone.				
12.	Pupils are encouraged to negotiate and problem solve with their peers in order to resolve their own conflicts.				

Physical Climate

		Always	Sometimes	Rarely	Never
1.	Pupils' work is attractively displayed in the classroom and throughout the school building.				
2.	Space is arranged to allow pupils to work alone or with other classmates.				

		Always	Sometimes	Rarely	Never
3.	The classroom is organized in a way that facilitates group work and encourages collaboration.				
4.	Interest centers are set up for all curriculum areas (especially in Early Schools)				
5.	Age-appropriate material and equipment are readily accessible to all pupils.				
6.	Sufficient quantities of high quality literature and other materials are readily accessible to all pupils.				
7.	Materials are organized and displayed attractively at the eye level of the pupils.				
8.	The classroom furniture is organized in such a way that encourages and facilitates work with small groups.				

		Always	Sometimes	Rarely	Never
9.	Seating arrangements are flexible and allow every child to hear and see what is being asked and demonstrated.				

CURRICULUM AND INSTRUCTION

Teaching and Learning

		Always	Sometimes	Rarely	Never
1.	A variety of resources are available to support pupil learning at all levels, including adaptive resources for pupils with disabilities.				
2.	The daily time-table is open and flexible and allows time for pupils to work on projects.				
3.	An understanding of how pupils learn, knowledge of their learning patterns and developmental stages are used to shape curriculum and instruction.				

		Always	Sometimes	Rarely	Never
4.	The curriculum has realistic goals and objectives for what pupils should know and be able to do.				
5.	The curriculum allows for creativity and flexibility for pupils and teachers.				
6.	The curriculum is designed to help integrate all content areas.				
7.	Pupil exploration and inquiry are fostered.				
8.	When planning the curriculum, pupils' interests are taken into consideration.				
9.	A balance of "active" and "quiet" learning activities is maintained to stimulate different learning patterns.				
10.	Social interaction among pupils and between teachers and pupils is encouraged.				

		Always	Sometimes	Rarely	Never
11.	Continuity of curriculum, instruction, and assessment is ensured between and across year groups.				
12.	Pupils are given opportunities to apply learning in meaningful contexts.				
13.	Classroom activities and materials allow pupils with diverse needs and interests to experience success.				
14.	The curriculum reflects the diversity of experiences and learning among all groups of pupils.				
15.	Play is viewed positively and supported as an active learning process.				

Assessment

		Always	Sometimes	Rarely	Never
1.	A combination of individual pupil work, pupil projects, and teacher observation is used to assess pupil achievement of the learning standards.				
2.	Assessment data are used to plan curriculum and instruction.				
3.	Teachers use assessment data to monitor pupils' work and progress.				
4.	Assessment data are used to strengthen the teaching and learning process in the classroom.				
5.	Assessment data provide a continuum of knowledge about pupils as they move from class to class and year to year.				
6.	Teachers use assessment data to identify pupils' strengths and areas in need of improvement.				

		Always	Sometimes	Rarely	Never
7.	Pupils use assessment data to evaluate their own learning.				
8.	Parents are included as partners in assessment and receive specific information about their child's progress.				

The indicators above could be used to help one analyze the outcome of the self-reporting audit tool in Chapter 2. Such indicators could help one to discuss, in very specific terms, what areas are already practiced and to what extent. These indicators may also be used as targets for the school to reach its desired aim of including all learners, thus making it a truly welcoming environment, conducive to learning.

CHAPTER 4

UNDERSTANDING DIFFERENTIATION

In order to understand differentiation one needs to have a clear understanding of what we mean by the term. In the first section of this handbook we defined differentiation as " an ongoing process of classroom intervention that addresses the strengths, needs and knowledge of individual pupils". Therefore differentiation cannot be regarded "as a separate approach or strategy, but as a continuous planned process which enables teachers to make the most effective possible use of a range of approaches to ensure effective access to, and progress within, the curriculum on behalf of pupils of all abilities" (Special Educational Needs in the Primary, 1995), learning profiles and interests.

Differentiated instruction is a child-centred approach to teaching that caters for different aptitudes, personalities and individual learner's characteristics such as gender, ability, inclinations, cultural backgrounds, readiness, confidence, motivation, interests (Heacox, 2002), and different mental processes of learning. Differentiation is not an end in itself; "the purpose of differentiation is to promote pupils' success in learning" (Lewis, 1992).

From an ethico-point of view, differentiation imbues the fundamental ethos of modern liberal democracy. For instance, differentiation entails equality of opportunity since it enjoins that, all learners being valuable in their own way, teachers ought to provide multiple options and opportunities whereby each individual learner participates, understands and learns. Each learner ought to achieve agreed targets through effective strategies (Weston, 1992).

Moreover, given the requirement that each individual student be given 'the continued capacity for growth' (Dewey 1916), differentiation demands respect for one's individuality. In practical terms teachers have to adapt the curriculum to the learners' needs, rather than attempt to fit learners into the curriculum (Hart, 1992). Differentiation requires the teacher to understand each learner's individual traits and personal needs, and hence plan her/his lessons in relation to these considerations. This entails using different approaches and avoiding the common habit of force-fitting learners into one standard mould (Tomlinson 1999).

Respect for one's individuality and the need to cater for the individual's needs, need not entail self-centredness or neglect of human beings' social nature (Wittingenstein, 1953). In this regard Weston (1992), notes that differentiation necessitates inclusion whereby a "wide range of strategies and flexibility of timing and approach" are adopted so as to attend to the needs of the learners.

Hence differentiation should avoid both excesses of both extreme individualism, wherein the social nature of the individual is neglected, and extreme communitarianism, which considers the individual merely as a function of a larger whole.

A differentiated teaching approach as understood by the author should cater for the individual's needs within a social dimension. Thus while planning and teaching the class as a social community, individual aptitudes and needs are considered and attended for. The communitarian aspect is also respected by valuing approaches to teaching such as peer tutoring and peer support in learning. In this paradigm learners are conceived as active performers that take control of their own learning while collaborating and interacting with other learners and with the teacher in the class. This model also emphasizes the important role of the teacher who, while developing the skill of empowering the learners to take control of their learning, enhances the role of the teacher as the person whose responsibility is to direct what goes on in the class. Thus the teacher is not divested of his responsibility to teach but in fact he or she has to be a different type of teacher, that is, apart from the delivery of the content he is also expected to impart skills that would eventually empower the learner to continue learning when the teacher is no longer with him/her.

The author also proposes that for effective differentiated teaching to take place teachers should work collaboratively so as to effectively manage their time more fruitfully and cope with the stress entailed by their job (McNamara and Moreton, 2001).

An educational system that does not value differentiation and thus fails to cater for the individual needs within a classroom of children with different learning needs and abilities will most likely produce low self-esteem amongst learners whose intellectual aptitudes and pace is slower than the average learner population and the harbouring of low-expectations by teachers with regards to the potentialities of such learners which will eventually affect the teacher's planning and delivery in class (Borg, 1997). Studies have also shown that in systems where learners are streamed there is no real attempt to break 'the cycle of failure'.

APPROACHES TO DIFFERENTIATION

The possibilities of differentiating classroom methods can be unlimited. Lewis (1992) lists at least eleven elements that one could differentiate (see table below). Others would list other aspects that need to be differentiated. Here we intend to discuss and expound a model which synthesizes the elements that need to be modified.

ELEMENTS TO BE DIFFERENTIATED	DESCRIPTION
Content	What the pupils need to learn and how to get access to the knowledge or skill that is required. This could lead, for example, to a reading programme that stresses auditory training, or emphasizes visual cues.
Interests	Children enjoy playing certain games, follow certain trends and do certain activities, such as sports, which might differ. Differentiation of teaching content may encompass differentiation reflecting children's interests. For example, a class of children may all be working on bar charts but what the children measure may vary. Some might opt to do their bar charts based on which cartoon character is most popular with classmates, others might show graphically the types of food eaten during breakfast etc.
Pace	This occurs when children undertake similar activities over time but work at varying speeds. This is found when a teacher gives a whole-class lesson and all the children then carry out the same follow up activities but working at different speeds and so

	requiring the teacher to have available some sort of supplementary (same or different level) activities.
Level	This occurs when, for example, all children work on the same scheme, say, mathematics scheme, moving at varying levels and paces through a single, invariant sequence of work cards, books or activities. Computer assisted learning has enormous potential for differentiation of level and pace. One computer programme can be used but children using the programme individually or in pairs can respond in their own time and, depending on level of response, the programme can present the children with easier, parallel or more difficult tasks.
Access	Differentiation of access occurs when children carry out similar activities to one another but the ways in which the material is presented are modified for some children.
Response	This could be achieved, for example, by changing the required product from writing to speaking. When asked to describe a square, one might draw it on a paper, another child might describe it orally and another 'draw' the shape in the air. In these examples children are given the same task but the mode of response is different for each child.
Sequence	In this type of differentiation children pursue a common curricular topic but choose for themselves which aspect of the topic to develop. The teacher then maps what each child has done and/or learned. This type of differentiation requires very detailed record keeping if it is to be successful.

Structure	This occurs when teaching is planned so that some children are learning in 'chunks' while others receive 'step by step' curricula. Therefore while a sub-group of children moves through small steps towards a learning goal, classmates work more broadly towards similar goals.
Teacher time	Often this occurs incidentally in classrooms because teachers tend to give more time to certain individual pupils who might have some difficulties in learning or who have behavioural problems than others in the same class.
Teaching style	This is a form of differentiation that often occurs in an unplanned and often intuitive way. Varying the teaching approaches can help different learners learn better. It would be much more beneficial if teaching approaches are chosen intentionally after having a clear class profile which analyses the learning processes of the learners within that classroom.
Grouping	Here children are grouped by established criteria to work together towards a common goal. Considerations can be activity-based, that is, a particular activity requires a certain level of competence or skill, or child-based, that is, a child's choice of partners, such as friendship grouping, can be considered.

Chart 1: Elements to be differentiated *Adapted from Lewis (1992)*

While as shown above many types of elements can be differentiated, teachers need to plan with intention and, while keeping all possibilities available, they need also to learn how to pick and choose those most appropriate in a particular learning situation and for particular learning needs of each learner within their class.

A MODEL OF DIFFERENTIATION

What follows is a model of differentiation that, while encompassing all the above, frames these elements in considerations that a teacher needs to take when deciding the type of differentiation he or she is to apply. The chart below shows that there are at least four classroom elements that could be differentiated (Tomlinson, 2000), namely **the content**, that is, what the pupils are expected to learn; **the process**, that is, how the pupils will get access to this content, the approaches and/or strategies that need to be employed to make sense of the content being presented and **the end product** or the response the child or the group is expected to produce by the end of the assignment. Finally the **classroom organization**, that is, how the pupils are to work in collaboration with each other.

The model shows also the need to consider all the above elements in full consideration of:

- Where each individual learner stands in respect of content and level of skill (**readiness)** (Vygotsky 1986)
- In and out of school **interests** so as to motivate learning and also to use such interests as anchoring thought processes on which to build new understanding and new learning (Csikszentmihalyi, 1997)
- Finally these elements cannot be effectively differentiated without knowledge of and respect for the **processing patterns of learners** (Sternberg, Torff and Grigorenko, 1998; Johnston, 1996, 1998). Simply using strategies indiscreetly, without really knowing the mental processes that individual learners use to learn would do little, if any, good (see next chapter for more details)

When considering all the above components, it is expected that a truly constructive learning environment is created. Such an environment is characterised by care for the learner - the learner's need are the prime mover of any learning action.

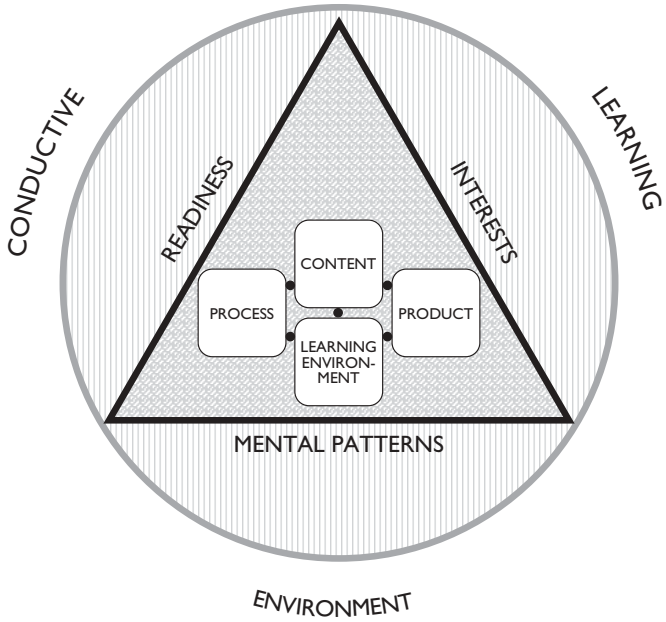


Chart 2: A model of differentiation

A discussion on differentiated instruction needs also to consider alternative learning and assessment strategies that do not necessarily require reading and writing. Verbal exposition could also be a mode of showing what one has learnt or practice a given skill (McNamara and Moreton, 2001). Verbal demonstration of knowledge, understanding and skill can in fact open the doors of learning to many learners who otherwise will be kept back from expressing their learning experience.

McNamara and Moreton (2001) also noticed that contrary to what many teachers feared, children who are not very good at writing and were given the chance to express themselves through talking about their understanding and physically demonstrating their skills have gradually, over a period of time, started to include some writing alongside the more practical methods of recording.

McNamara and Moreton also encourage the use of different media, hence offering a variety of recording mechanisms. These authors also emphasize the need to create healthy collaborative environments where children help each other to set and reach targets and teach each other to improve their work through carefully structured peer tutoring, what they call 'Differentiation by Paired tasks'.

THE ROLE OF ASSESSMENT IN A DIFFERENTIATED CLASSROOM

One needs to point out the need to separate assessment from the learning process. There is a difference between setting a task for learning and setting a task for assessment. When a teacher is setting a task to assess, the focus is on recording and coverage of content, while when the focus is on the learning process the teacher will clearly set the path through clear learning objectives and proposes different learning strategies through which the learners can experience learning. The teacher who is looking at the learning process also feels comfortable to accept different ways of recording understanding, knowledge and skills.

McNamara and Moreton (2001) claim that with teachers who

1. Set clear objectives,
2. Set the criteria for success with the learning activities,
3. State the assessment activities and
4. Clearly set the success criteria for the assessment activities to the children,

the children get better assessment. In Chapter 9 we will discuss modes and activities that can help the teacher to informally gauge the level of understanding and proficiency of skill during a learning episode.

The importance of learning objectives cannot be over-emphasized. The learning objectives will guide both the teacher in his/her planning and selection of teaching strategies and the child who will have clear directions to the learning destination. Once the learning objectives are set the teacher would then have to decide on the type of differentiation to use, that is, whether to differentiate the content, the way the learning and understanding is to be documented (i.e. the product) or/and the process, the strategies to be used in order for a learning episode to be experienced.

In a learning environment such as ours where highly centralized curricula are set and where content is saturated with details and unlimited facts, one cannot but insist that for a true differentiated environment to develop, teaching should be concept-focused and principle-driven. Concepts should be broad based and not focused on minute details or unlimited facts. Teachers must focus on the concepts, principles and skills that students should learn. Thus, in most cases, while the content may vary, the concepts addressed will be common to all pupils but "adjusted by degree of complexity for the diversity of learners in the classroom"(Hall).

Hess (1999) states that when teachers differentiate instruction, they:

- "Keep the focus on concepts, emphasising understanding and sense-making, not retention and regurgitation of fragmented facts";

- "Use ongoing assessments of readiness and interests, and pre-assess to find students needing more support and those who can leap forward. They don't assume all students need a certain task";
- "Make grouping flexible. They let students work alone sometimes and also in groups based on readiness, interests or learning styles. They use whole-group instruction for introducing ideas, planning, or sharing results";
- "See themselves as guides. They help students set goals based on readiness, interests and learning profiles - and assessment based on growth and goal attainment".

Therefore a classroom that caters for the needs of all learners and thus reinforces differentiated practice is a classroom:

- Where learners are given the opportunity to participate in activities or processes through which learners can come to understand and own information and ideas;
- Where learners are given the opportunity to explore the curriculum content in different ways;
- Where learners are given the opportunity to exhibit and demonstrate what they have learned in different ways;
- Where talk is valued;
- In which learners' out-of-school learning experiences are valued;
- Where learning and assessment are clearly defined;
- In which lessons are planned on clear, attainable learning objectives and which respect each child's readiness, interests and learning profile;
- In which tasks are seen as a means to an end;
- In which assessment tasks are identified and take place after children have had the opportunity to reach the learning objectives;
- Where the spirit of collaboration prevails;
- Which practises a blend of whole-class, group, pair, and individual instruction;
- In which the learner is the centre of all activity.

It is therefore understood that when we talk of differentiation we are asking teachers and schools to make a real leap in their understanding of the learning environment. It is not simply adjusting to some superficial changes, or following a recipe or using some "new" strategies, but we are proposing a form of planning that truly caters for the needs of each and every learner as a member of the classroom community. The chapter that follows discusses a tool and a training programme that equip teachers with the means to engage in intentional teaching and learners with a "desire to grow in understanding and responsible ownership of the learning experience." (Osterman and Kottkamp, 2004)

CHAPTER 5

UNDERSTANDING THE LEARNER: THE LET ME LEARN PROCESS

Over the years local and international research (Cachia 1997, Sultana 1989, 1991 and 1992, Darmanin 1991, Ball 1986, 1989, Holt 1969, Mercieca 1991, Douglas 1964) has shown that by simply selecting pupils by ability, schools have not succeeded in supporting and catering for the full range of learners' needs. It is only "when differentiation is understood as a process of understanding, valuing and responding to differences in how people learn (that), it can be a largely positive experience" (Fielding 1996). Johnston in her opening quote for the book *Let Me Learn* (1996) emphasizes the importance of listening to the different voices of the learners and of acting on the needs through their strengths and not through their weakness.

> *"…All we have to do is listen to them. They will guide us if we can get beyond their space and heart and anger. They will tell us who they are and, if we listen, they will guide our learning together-whether we use structure or details or tools or ideas, we are of value. We have a reason to be and so much to contribute. Listen, listen, listen-listen to the pain, and listen for the potential. What a challenge we have-what an opportunity, what a responsibility-we can do it if we use all of who and what we are."*

Teachers often teach the way they learn. We as teachers often find ourselves repeating techniques that we find 'comfortable' and appropriate for us as learners. Little do we realise that every learner has his/her own 'voice', his/her own individual way of learning. Whether we like it or not, in our role as teachers, we are dealing with a whole range of differences, and it is only when we understand and learn to 'listen' to the learner that we succeed in guiding them through the process of learning.

THE LET ME LEARN PROCESS®: AN INTERPRETATION

The Let Me Learn process (LML) is not simply a concept that you either know or you don't. The LML Process is an ongoing exercise of growth in understanding yourself, in understanding others as well as in understanding your multidimensional reality with full knowledge that your reality is something you can work with and eventually change. Ultimately, it is a question of where you are as a learner along a path with insights into learning, both as a concept and as a process.

WHAT IS THE LML PROCESS?

The Let Me Learn Process is an advanced learning system that provides learners with the means to understand and articulate who they are as learners. The LML Process has the Interactive Leaning Model (ILM – Johnston 1996) as its conceptual framework. The ILM is a tripartite model consisting of three interactive mental processes: **cognition**, **conation** and **affectation**.

- **Cognition** is how we attain information. It is the act or process of knowing. Cognitive aptitude includes evidence of Multiple Intelligences (Gardner, 1995) and an array of a person's life experiences.
- **Conation** guides performance. The learner has his/her own pace of performance and a certain degree of autonomy when learning. Conation also includes the learner's degree of efficiency in using his/her own tools of learning, such as strategies for problem-solving and accurate wording.
- Through **Affectation**, learners develop a sense of self when they are engaged in assignments. There is an increasing movement in research maintaining that feelings strongly affect the learning process. While closely related to self-esteem, affectation is a measure of confidence.

Through the dynamics created by the interplay of these three processes, we experience what are commonly termed as thinking, doing and feeling. On the interactions of the three mental processes, Johnston empirically derived four patterned operations: **Sequence and Organisation**; **Specificity and Precision**; **Technical Performance and Reasoning**; **Confluence and Risk Taking**. Through the interaction of these patterns and the operation of mental processes, we make sense of the world around us (Johnston, 2003).

These mental operations function as part of the interface between the brain-mind connection, at which juncture the stimulus that has entered the brain is translated into symbols which the mind can process and store - in other words retain, retrieve - that means LEARN. The act of translating the stimulus into these symbols of language, numeracy, etc, involves the interactive mesh of our mental processes - our patterns. Therefore understanding our patterned mental processes is vital to understanding how each individual learns (Johnston, 2004a; 2004b; 2004c).

The chart below shows how these patterns manifest themselves while we process information, respond to the information by performing an action and how we react affectively in situations that call the use of the particular pattern.

	How I think (Cognitive Domain)	**How I doThings (Conative Domain)**	**How I Feel (Affective Domain)**
Sequence	• I organize information • I mentally analyze data • I break tasks down into steps	• I make lists • I organize • I plan first, then act	• I thrive on consistency and dependability • I need things to be tidy and organized • I feel frustrated when the game plan keeps changing • I feel frustrated when I'm rushed
Precision	• I research information • I ask lots of questions • I always want to know more	• I challenge statements and ideas that I doubt • I prove I am right • I document my research and findings • I write things down • I write long e-mail messages and leave long voice mail messages	• I thrive on knowledge • I feel good when I am correct • I feel frustrated when incorrect information is accepted as valid • I feel frustrated when people do not share information with me
Technical	• I seek concrete relevance - what does this mean in the real world? • I only want as much information as I need- nothing extraneous	• I get my hands on • I tinker • I solve the problem • I do	• I enjoy knowing how things work • I feel good that I am self sufficient • I feel frustrated when the task has no real world relevance • I enjoy knowing things, but I do not feel the need to share that knowledge
Confluence	• I read between the lines • I think outside the box • I brainstorm	• I take risks • I am not afraid to fail • I talk about things - a lot • I might start things and not finish them	• I enjoy energy • I feel comfortable with failure • I do not enjoy having my ideas criticized

	• I brainstorm • I make obscure connections between things that are seemingly unrelated	• I will start a task first - then ask for directions	• I feel frustrated by people who are not open to new ideas • I enjoy a unique challenge • I feel frustrated by repeating a task over and over

Chart 3: *Let Me Learn, Inc 2000*

The above may be observed in young children's behaviour: the students in the local scholastic system. As teachers we often wonder how children play with the same game differently. How is it that when John uses blocks, he tends to use them randomly, build very unusual structures, while when Mary plays with the same blocks she first needs to spend time arranging them by colour and size and then build very symmetrical structures? Or why is it that during a brainstorming session prior to a creative writing exercise, Rachel comes up with so many ideas while Nicole needs to be prompted to say anything? Some children would crave for more information and ask loads of questions for more details while others would need clear instructions on how to go about doing the exercise or activity. A second look at these behaviours would reveal indicators of the four learning patterns mentioned above.

In order to ensure that the individual learner (and his/her teacher) gets an accurate and reliable reading of his/her scores of the use of learning patterns, Dainton and Johnston (1996) developed an instrument, namely the **Learning Connections Inventory (LCI)**. In other words, the individual learner answers the questions in the inventory (28 statements answerable along a 5-point likert type scale and 3 open-ended questions) and subsequently s/he would know to which extent s/he uses the mentioned patterns: usually in three rather broad categories, **Avoidance, Use as needed** and **Use first**. A LML facilitator using internal indicators present in the inventory usually validates the inventory. This stage of the process is crucial, since a wrong reading and interpretation of the scores can lead to a form of labelling and a misguided implementation. The case-study below exemplifies how the correct reading of the LCI scores leads to a deeper understanding of the learner.

Mario has the following scores: **S**equence **29**, **P**recision **15**, **T**echnical **22**, **C**onfluence **34**. Mario's strongest pattern is Confluence. This would probably be observable in Mario's generation of loads of 'different' ideas and high risk-taking. It is by far the pattern he opts for in order to interpret the world around him and to tackle particular jobs. However, labelling Mario as a confluent learner is a gross shortcoming. Mario's score in Sequence is also very high. Thus it is important to understand Mario's need for order, clear directions and consistency as well as Mario's disposition to work in sequential environments.

He uses his technical abilities as needed. Thus he may feel comfortable doing a technical task, yet he wouldn't think about taking the lead, especially if persons with high technical scores are present. It is also important to note that Mario avoids the precise pattern. Precision operates in an environment full of information and specific details. Life at school often demands a high score in precision. Mario may find it easy to generate ideas through his confluence, yet he may find it difficult to write them down. On the other hand, he may not bother very much about committing mistakes.

This conceptual language provides a complex picture that does justice to the complexity of the nature of human beings.

WHAT ARE THE IMPLICATIONS OF THIS KNOWLEDGE?

It is immediately clear that through the knowledge of the learning patterns and the administration of the LCI one may get a better, more insightful picture of oneself and of others as learners. Yet one may soon understand that this knowledge is not a neutral and simple occurrence. If one is aware of and has got the technology to know how students learn in different ways, one cannot teach monolithically any more.

What does this knowledge change? If we look at this change from a rather superficial point of view, a teacher needs to administer the LCI on a yearly basis to get a class profile of the group s/he is working with and plan lessons with the patterns in mind. Yet if change is to be profound and question the *habitus*, the Let Me Learn Process shifts the focus of learning to the learner as the latter becomes the subject, responsible for his/her own learning.

PRACTICE

De facto, it is evident that local educators tend to avoid reflective practice, dismissing it as an academic exercise they were obliged to do during their professional training, with little relevance in their professional practice. This thinking is only the tip of a cultural iceberg that ignores reflection and favours a more pragmatic, utilitarian approach to education. Nevertheless, as research shows us (Osterman and Kottkamp, 2004), it is only through structured

reflection about one's own experiences that learning occurs. A paradigm shift in this regard would not only involve the teachers as professionals but also (and mainly so) having the learners reflect about their own learning. This may sound vague and abstract, especially to persons with a pragmatic view of life: 'What is the use of these mental gymnastics? A professional teacher would automatically ask, especially when a lesson is successful.

In the light of all these considerations, the LML Process not only provides a theoretical framework to reflective practice but also the necessary tools that will facilitate the success of every individual learner. At this point, it is important to qualify the LML Process as a meta-cognitive process, where **meta-cognition** refers to the parallel action that goes on in the human mind (often studied by philosophers such as Socrates) that thinks, acts and feels but also processes these activities at the same time. Why is it that this term, meta-cognition, is so intimately related to the LML Process?

In educational literature (Flavell, 1979; Livingston, 1997) meta-cognition is often defined as knowledge and regulation of cognition. This consists of three parallel processes:

(1) knowledge about oneself and others' thinking processes;
(2) knowledge that different type of tasks exert different types of cognitive demands and
(3) knowledge and taking action about cognitive and meta-cognitive strategies for enhancing learning and performance.

The LML Process is a meta-cognitive process because it gives the learner reflective tools and terminology that help the learner to experience a parallel process, operational and reflective, empowering him/her to take an active role in his/her own learning.

Let us consider the three elements of meta-cognition mentioned above and the translation of its meaning in terms of the LML Process:

Knowledge of Self and Others: This has already been discussed at some length above, when considering the implications of knowledge derived from the LCI regarding the individual use of the four learning patterns. As a teacher I become aware of what I avoid doing and what I use first. At this point a professional teacher problematizes his/her relation with the pupil through this knowledge. Was the methodology I used all along determined by my own specific patterns? Could some pupils with learning combinations different from mine feel left out because of my approach to learning? All of a sudden one starts making intentional connections, questioning what s/he considered as proved methods to teach specific subjects. In addition, the teacher starts having a deeper insight that directs him/her to understand better the pupils s/he is working with. Therefore a teacher who is aware of his/her learning

patterns is also aware that s/he needs to allow, understand and value different behaviours which would help the students to accept themselves as learners and work in a comfortable environment and do things they feel comfortable doing. The following are some examples of teaching strategies:

- **Provide ample tools/materials that can be used to build things that reflect knowledge of material (for students with a high technical score)**
- **Repeat the directions more than once (for students with high sequence)**
- **Provide opportunities for the child to work with others who use patterns reflecting curiosity and diverse delivery assignments (for students with high confluence)**
- **Allow extra time for looking up research and additional information (for students with high precision)**

The linguistic tools provided by the LML Process facilitate the ensuing communication between teacher and learners as the learners vie to engage and participate in their own learning experiences. Over a longer term, this being a process of growth, learner, teacher and the learning community get much deeper insights and get much broader connections with the meaning of 'being learners'.

Task Analysis: This is an important step towards the LML Process's ultimate aim: intentional teaching and learning. Every different task involves or accentuates the use of different patterns. One needs to analyse the objectives of any given task in order to understand the reason behind the task. Thus if the lesson objective is recognizing a particular shape, with the knowledge of the LMLP, we know that the main pattern in demand here is Sequence because it demands mental categorization.

The Word Wall is an important resources developed by LML practitioners to help both the teacher and the learner in analysing tasks and lesson objectives in terms of learning patterns through key words which demand particular patterns.

Sequence - Sekwenza

List - agħmel lista
Plan - ippjana
Organize - organizza
Sequence - qiegħed f'sekwenza
Order - qiegħed f'ordni / wara xulxin / irran!a
Develop - Ωviluppa
Alphabetize - qiegħed f'ordni alfabetika
Arrange - irranġa
Group - għaqqad / agħmel gruppi
Outline - oħroġ il-punti prinċipali / agħmel abbozz
Put in order - qiegħed wara xulxin
In a series - qiegħed f'serje
Show a sample - għati e|empju
Classify - ikklassifika
Show an array - qiegħed f'ordni
Distribute - qassam

Precise - Precizjoni

Detail - dettall
Describe - iddeskrivi
Examine - EΩamina/ifli
Explain - Spjega
Give reasons - agħti raġunijiet
Facts - fatti
Look - ħares
Certainly - ċertament
Paraphrase- ikteb fi kliemek/ fi kliem oħra
Measure - qis
Calibrate - sib il-qies
Identify - identifika
Observe - Osserva
Log - nizzel x'ġara
Document - iddokumenta
Label - niΩΩel l-isem
Specific - speċifiku/a

Technical - Teknika

Construct - ibni
Illustrate - iċċara bi stampi, dijagrammi, eċċ
Experience - esperjenza
Concrete - konkret/a
Tools - għodda
Erect - waqqaf
Move - ċaqlaq / mexxi
Assemble - iġbor / iġma' / għaqqad
Sculpture - skolpixxi / naqqax
Figure out - solvi / ikkalkula
Formulate - ifformola
Build - ibni
Graphically draft - pinġi stampa
Make - agħmel
Perform - aħdem
Demonstrate - uri
Use a technique - uΩa teknika
Form - agħti forma
Reconstruct - erġa' ibni
Mold - immudella
Tell one-to-one - taħdita bejn tnejn
Problem solving - solvi din il-problema

Confluence - Konfluwenza

Imagine - immaġina
Risk - irriskja
Ideas - ideat
Not ordinary – mhux ordinarja / normali
Different - differenti
Dream-up - oħlom
Far-fetched - eΩaġerat
Unique - uniku/a
Carefree - bla inkwiet
Independence - indipendenza
Unusual - mhux tas-soltu
Invent - ivvinta
Incredible - inkredibbli
Create - ikkrea / oħloq

Chart 4: Word Wall *Adapted from Barycki Barbara and Coulter Karen*

The knowledge of others as learners as well as of different patterns demanded by different tasks is a necessary element when a teacher does his/her planning with intention. Intentionality, often referred to as 'power by design', adds an important dimension to teaching and learning. Tasks can demand the use of very specific patterns and exclude others. Lesson planning thus requires the teacher to analyse the objective of the lesson and then, with a sound knowledge of the LML Process, figure out which students would be left out owing to the incongruence of the objectives' patterns with the learners' dominant learning patterns. The figure below is a step-by-step task that we use during our training with teachers to help them plan with intention.

TEACHING (AND LEARNING) WITH INTENTION
Planning a classroom activity using the knowledge and insights provided by the Let Me Learn Process

DESCRIPTION	TEACHER/STUDENTS	DIRECTIONS
TASK	Plan a classroom activity	• Choose a specific topic, learning objective, a specific context (class, number of students, time of day, resources, etc)
TEACHING STRATEGIES	Identify learning Patterns	• Which learning patterns are naturally embedded in this activity and which learning patterns are left out? • From my knowledge of the students in this classroom how many would feel like it to tackle this activity and how many would feel left out, and would opt to avoid doing it?
	Planning for ALL	• Which strategies am I going to use so that all learners 'feel' in a familiar situation?
	Assessment	• Which different Outcomes can I think of to assess the learners' understanding?
	Learning Strategies to Support learning	• Which students need my help and through which pattern may I talk to them? • Which learning strategies should I mention before the whole class starts tackling the planned activity?

Chart 5: Teaching and Learning with Intention *Let Me Learn - Malta 2004*

The desired outcome of this exercise would be that Mario, from the above case study, and all the other learners in a particular class, would tackle a task with confidence notwithstanding the given incongruence between the lesson's objectives and Mario's learning combination. In parallel with this, students whose patterns are congruent with the lessons' may act as facilitators, helping their peers in tackling the task. This means that the teacher should be aware that all patterns should be fairly represented in the kind of lessons from time to time. This also signifies a shift of focus from the teacher to the learner.

Creation of Strategies: Knowing yourself and the task you are required to do creates the necessary basis for an eventual meta-cognitive experience: feeling empowered to tackle any given learning situation, analyzing it on its own and how one relates to it, and creating strategies when the need arises. For Mario, thoughts, feelings and actions may shift from "I'm stuck, I hate writing…I barely managed to write one paragraph" to "I need to stretch my 15 in precision for this job. With my 29 in sequence I feel confident doing a plan for this write- up and then adding the details later. Then I fill in with words." This paradigm shift has far-reaching implications. The learner is much more in contact with his/her learning experience: being able to control the situation and being a subjective player in different learning situations. In the Let Me Learn Process, these dynamics are often termed as intentional learning (and/or teaching). In this context nothing is left to a trial-and-error process but lessons are planned and help is provided within the structural knowledge provided by the LML Process. When planning, the teacher is often faced with an observation: can I tackle and/or assess this objective in different ways (cater for the four patterns) or can this objective only be tackled and/or assessed in a given way? The latter implies helping the students with different learning combinations to cope with the pattern in question.

The use of the strategy card, a resource developed by LML practitioners, embodies all three meta-cognitive stages discussed above. Besides functioning as a comprehensive learner identity card of the individual learner, the strategy card provides the learner with a new position from which s/he may intentionally tackle specific situations.

	Sequence	Precision	Technical	Confluent
My Scores				
Ways in which I would 'naturally' use each of these patterns				
	What is required of this pattern	*What is required of this pattern*	*What is required of this pattern*	*What is required of this pattern*
What does the task require of each of these patterns				
	My personal strategy for using this pattern	*My personal strategy for using this pattern*	*My personal strategy for using this pattern*	*My personal strategyfor using this pattern*
What I will say to myself to make up the difference between how I naturally use a pattern and what this assignment requires of me.				

Chart 6: Sample of a strategy card *Let Me Learn, Inc 2003*

If Mario, a fictional yet somewhat familiar presence in Maltese classrooms, were to make up his own strategy card, he would identify (and in the process, reflect on) how he uses his learning patterns. Mario's main problem in school is that he finds it very difficult to tackle exercises that involve writing and the retrieval of information. His 15 in precision not only explains this situation but also excludes other conclusions which one may come to in an exam-oriented culture which often boils down to 'I am a failure in school'. This is a common occurrence in a typical school environment where precision is very much in demand. In the strategy card, he would write it down in black and white ' I avoid precision'. He would also find it easier to list ways how his scores in the other patterns translate according to HIS reality. A task analysis of an activity requiring writing makes it obvious that Mario, notwithstanding his learning combination, would need to use precision. On the strategy card, Mario registers the incongruence between his patterns and the patterns required by the task. The creation of strategies would require Mario to look at his stronger pattern and identify ways in which he could tackle the task. The 'plus' here would be Mario's intentionality - his tackling the task by design not in a trial and error fashion. A typical strategy would be to look at and converse with one of his peers who uses this pattern first. 'How come you enjoy doing this exercise? Can you help me?' This higher-order thinking not only requires time but also a build-up: a careful plan and constant

communication with the learner in order that s/he identifies the importance and skill of this practice.

The Let Me Learn Process affords us also with a metacognitive "drill" that we could use in order to help us structure our thinking and that of the pupils that we are teaching. This "drill" is made up of these five moments in our thinking, namely: **Mulling, Connecting, Rehearsing, Expressing, Assessing, Reflecting** and **Revisiting** (Let Me Learn Inc. 2000)**.** Different learners might opt to start from different 'moments'. What follows is a description of each moment:

MULLING
Students of all ages need time and permission to mull over, i.e. wallow in, the learning task they are facing. They need time to explore, examine, and most of all get a handle on their thoughts, their actions, and their feelings about the learning task they are facing.

CONNECTING
Next, they need time and opportunity to connect this challenge to a prior one. For example, they need to be able to ask themselves whether they succeeded the last time they attempted a learning task of this nature. If so, how? Did they fail? If so, what were they left with as a result? What is the residual effect of their feelings of failure? In order to avoid failure, students need time to rehearse their performance. This is more than simply practising once or doing a "dry run" in their heads.

REHEARSING
Rehearsing means actually performing the knowledge or the skill through any one of several media - written, spoken, acted out, or represented graphically. Rehearsing includes private time to gain confidence as well as public time to allow others to observe and provide helpful feedback. Students are more likely to succeed if they have connected well, that is, safely and securely with other learners during rehearsing. Informal feedback is as important to students as it is to you when you are learning new knowledge or a new skill. Students need the safety and the benefit of practising their knowledge without fear of failure. Rehearsing allows for practice, correction, improvement, and risk-taking. It involves all four learning processes.

EXPRESSING
Expressing typically follows learners' rehearsing. The student-learner has moved from internal mulling to rehearsing and now to external expressing. Once the knowledge or skills are demonstrated, most students are prepared and eager to receive formal feedback.

ASSESSING
The learner prior to the instructor's feedback does assessing. Think of it as a pair of scales. On one side is the task to be done and the rubrics for completing

the task. On the other side is the student's performance. What is the balance between expected performance and student performance? The learner looks at the crude facts and gauges the outcome before an external source gives an external assessment.

REFLECTING

Reflecting is like holding a mirror in your hand and facing yourself. This is what I did and this is the outcome. If I want a different outcome, then I will need to take responsibility for changing and responding to the task in a different manner. Here is the conscience of metacognition. With feedback in hand students begin reflecting on the preparations that led to the feedback and the learning outcomes. Reflecting requires openness and self-discipline on the part of students. A key aspect of self-discipline is perseverance.

REVISITING

Perseverance is what drives students to revisit their original effort and make adjustments. At this point learners listen to their own self-analysis of what occurred. They identify what they could do differently, more effectively, more successfully, and they determine their personal goals for enhancing their future learning capacity. This is real-time learning.

LEARNING

When internal conversations like this occur, students know they have developed a personalized means of making learning more productive and more meaningful. The literature is clear in indicating that when learners take responsibility for making learning work, they expand their capacity to learn.

TRAINING AND LEARNING

Local educators interested in using the LML process are required to participate in a ten session training programme designed and facilitated by the LML – Malta team. Following are the objectives and the projected outcomes of the two phases of training.

OBJECTIVES FOR PHASE 1

By the end of Phase 1, participants receiving a certification of their awareness level of the Let Me Learn process shall have:

- A sound and basic knowledge of the theoretical foundations of the Let Me Learn Process (LMLP): candidates would be able to explain and contextualise the Interactive Learning Model and describe the characteristics of the four learning patterns;
- A comprehensive understanding of their own learning patterns and their application in real life with the use of anecdotal evidence from their learning experiences;
- Acquired the skill to prepare the class for taking the inventory (LCI), administer it, do basic validation and build a learning class profile with the information derived from the LCI;
- Knowledge of basic concepts and attitudes characterising differentiated teaching and attitudes towards differentiated classrooms.
- Acquired an awareness level of how knowledge of the LMLP impacts lesson preparation;
- Explored the social dimension of learning: how knowledge of the LMLP can be applied to collaborative learning and working in groups.

Chart 7: Objectives for Phase 1 *Let Me Learn - Malta 2004*

OBJECTIVES AND OUTCOMES FOR PHASE 2

1. Successfully completed Phase 1

Outcomes:

Participants should be:
- ➢ Conversant with LML terminology, namely the Interactive Learning Model, the four learning patterns and metacognition.
- ➢ Able to prepare the class for taking the Learning Combination Inventory (LCI); administer the LCI; validate the scores; interpret the resulting learning combination.

2. Acquire the skill of creating appropriate learning materials, which support different learning combinations

Outcomes:
Participants should be:
- ➢ Able to use the template to input the scores and to construct a class profile.
- ➢ Able to generate graphs in order to get a visual representation of the variables:
  - (a) within the class learning profile
  - (b) of the individuals' learning combination.
- ➢ Able to interpret the data and write a report including:
  - (a) the analysis of the class profile
  - (b) the comparison and contrast of the teacher's scores with those of the class
  - (c) the awareness of which patterns need to be tethered and/or stretched in specific situations
- ➢ Able to plan learning strategies and activities that support different learning profiles. This includes analysing learning objectives and given tasks in terms of learning patterns. The teacher needs to explore the possibility whether the planned learning objective may be attained by different means denoting different learning patterns or in one given way that denotes the use of one specific pattern.

3. Acquired the knowledge and skill to enhance students' awareness of their different learning combinations, thus empowering them to take control of their own learning

Outcomes:
Participants should be:
- ➢ Able to create a system of ongoing awareness for pupils in whom the latter would be able to continually refer to. This would entail a process through which the pupils themselves become conversant with the four learning patterns. **E.g.** The display and regular reference to the Word Wall and the regular use of the metacognitive friends.
- ➢ Regularly dedicate time in the lesson to focus on and refer to learning patterns before tackling a learning situation
- ➢ Be able to facilitate the process of creating task-specific strategy cards. When students face a challenging task they would be able to create a strategy which should portray the following three steps:
  - (a) Decode the task in terms of which learning patterns are being demanded.
  - (b) Identify the patterns that need to be stretched or tethered.
  - (c) Create personalized strategies to meet the demands of the task.
- ➢ The students should be aware of their own and their peers' learning patterns and be able to work in a group, using all patterns at play so as to interact and function effectively as a team. Working regularly in teams should help them create a learning community in which they can help and learn from each other.

Chart 8: Objectives and Outcomes for phase 2 *Let Me Learn - Malta 2004*

In order to connect with what the LML Process means to the particular individual the latter has to undergo a particular process of mulling, connecting with previous experiences, sharing, experimenting and reflecting. The LML (Malta) Training Programme translates these activities and considerations into experiential moments; a journey which ultimately should provide both a deeper understanding of learning and the learners as well as a better idea of how the LML process may be implemented in class. Teachers deconstruct the meaning of being a learner, connect with the learners in their class and explore what it means to implement the Let Me Learn Process in a classroom context.

The Let Me Learn (Malta) team have continued to develop resources which would help teachers in their endeavour. This 'arsenal' of resources in practice delves into the complexity of the experience of learning and helps to make sense of them. Some of these resources include the website, the development of various tasks and activities which drive participants towards the achievement of aforementioned outcomes, lesson plans based on let me learn technology (see samples). The students themselves are involved in this learning programme as the LCI is administered to them and they are also exposed to a let me learn awareness session. To help young learners connect with the let me learn process, the let me learn team developed a world of four characters: Geru, Fina, Faru and Zringi, embodied in four soft toys, a set of which is given to the participant teacher to be used in class. These soft toys, besides being very attractive and including a fun element which should be ubiquitous in a learning environment, help children to reflect, specifically to focus on their learning patterns. These soft toys also help them to identify which patterns are needed to tackle a particular learning task. The characters also convey a positive message of differentiation.

As regards support to train the teachers, support meetings are held once every term. Teachers meet to discuss the reality of the LML process vis-à-vis the realities of learning in their particular classroom context. Teachers are also offered further support and mentoring for which let me learn trainers are available to support and sustain energetic initiatives which teachers come up with in order to implement the let me learn process in their classroom and put it on solid foundations.

BY WAY OF CONCLUSION: A READING AT DIFFERENT LEVELS

The Let Me Learn Process may be interpreted as a tool to achieve a better understanding of individual learning processes but also a model of a process in itself, which runs parallel with the nature of individual and social learning and growth.

1. AS A TOOL

In other words, through a rather superficial reading of the Process, one may

enhance one's perception of oneself and of others (pupils, relatives, etc) as learners. This occurs through the knowledge of the learning patterns and the dynamics that are created and may be perceived through them. Thus, for example, through this understanding, a teacher may realize that because s/he avoids sequence, her/his directions may not be as clear and as sequential as the majority of the pupils (who process learning with a use first sequence) demand. The teacher has a number of resources that may help him/her in understanding learning dynamics at play in a given situation. Through the Learning Combination Inventory (LCI - Dainton and Johnston) one may have an accurate and reliable reading of one's own learning patterns and also the learning combination of every individual in the classroom. This helps to create a class profile that replaces the vague picture one gets through the observation of pupils' behaviours. With the help of a conceptual language, one may communicate insights, thoughts and other experiences.

2. AS A MODEL OF A PROCESS OF GROWTH

A more complex reading of the LML process reveals a deeper understanding of the learning process as well as a plan of action that leads towards being a more effective and successful learner. Perceiving one's own understanding of the learning process as a process in itself helps the individual in question to make a more comprehensive sense of what is happening in the process of learning and growth. In addition the dynamics created by the processual nature of this model in parallel with the intimate and processual nature of learning will help the learner to be enfolded in a three dimensional will to learn, unlocked by the interaction of the cognitive, conative and affective aspects of the human mind.

SUMMARY

LML Basic Concepts	**LML Exercises**	**Actions and Insights**	**Metacognitive Innuendos**
The Interactive Learning Model The Four Interactive Learning Patterns	➔ Journal ➔ Me and My students	The tripartite model of the brain involving the thinking, doing and feeling Sequence and Organisation; Specificity and Precision; Technical Performance and Reasoning; Confluence and Risk Taking	Through observation and the administration of the LCI: Knowledge of the self and of others as learners. This illustrates the knowledge that each learner is unique. A specific language helps dialogue among different stakeholders and helps to focus and analyse specific thoughts, feelings and actions.
	The LCI	Administration: a valid and reliable reading of Personal and Class Learning Combinations. Learning Profiles.	
Metacognition	Intentional Planning	Task Analysis: Analysing the specific objectives of the lesson plan: recognizing which are the dominant patterns at play in a particular pedagogic objective or activity	A very focused look at the process of learning both as steps (mulling, connecting, rehearsing, expressing and revisiting) and as patterned operations required by the task itself.
	The Strategy Card	The learner, aware of his own learning patterns and the patterns at play in a particular learning situation, uses the strategy card to mull over which of his strong patterns he needs to use or to tether and which of his lower patterns he needs to forge or enhance	A meta-processing exercise to develop task-specific strategies
	Reflection		Various reflective steps: gathering and connection of information; reconceptualisation; experimentation; reflection is an ultimate, powerful piece in the process of learning

Chart 9: A Summary

CHAPTER 6

THE FLOW OF INSTRUCTION IN A DIFFERENTIATED CLASSROOM

PLANNING INSTRUCTION

Planning for instruction is one of the most important skills that every teacher must possess. In order for a teacher to be truly effective in class, s/he must have the ability to plan good learning experiences for the pupils.

In this chapter we will be discussing a planning cycle that a teacher could follow in order to plan for a differentiated learning experience. This planning journey is intended to help the teacher decide how best to select and organise a learning experience in order to maximize both teacher and learner achievement and satisfaction.

When a teacher takes the time to plan, this will be of benefit both to him/herself and without doubt to the pupils. Teachers, who plan feel confident, tend to be more creative in their choice of learning and teaching strategies and tend to be more in control of the classroom.

Pupils also benefit from good planning, because when a teacher plans her/his instructional strategies s/he tends to take into account the diverse backgrounds, interests, learning profiles and abilities of the pupils in the class. This would in all likelihood increase the pupil's interest and satisfaction. However good planning tends to make better use of instructional time and minimize time wastage.

In planning there are different approaches that one can consider. Cruickshank et al (2001) states that teachers, in their instructional planning, locate themselves along a continuum, with one end being the **Process approach** to instructional planning and the other end being the **Product approach**.

The process approach is that type of planning in which teachers plan the process with as little structure as possible so as to give pupils as much flexibility as possible. On the other hand there is the product approach to planning. This type of planning is highly structured, with very specific objectives and a very strong hold on the content, skills and understanding.

While these two approaches seem to be incompatible, teachers would find that both could be very effective and useful depending on the situation. In

some situations one would favour one approach over the other. Also the way one prefers to learn would without doubt affect the way one prefers to plan for instruction. It is therefore important to know, as a professional teacher, when one type of planning can be more beneficial than the other. Advocates of the process approach propose this approach when planning for higher-order thinking (when aiming for analysis, synthesis and evaluation of information), problem-solving skills and when trying to develop skills to learn how to learn. This type of planning can be very challenging for those who have a combination of learning patterns dominated by sequence. At the same time it can result in a very motivating learning experience for those pupils who are guided by their confluent pattern and thus do not require, or prefer not to be over burdened by, too many instructions and preconceived goals.

On the other hand, the product approach to planning fits well with those of us who need to feel safe and have all stages planned for. Planning using the product approach would require a teaching strategy that follows a very sequential process. This can be very beneficial for disseminating content or very specific skills. Sugden (1989) also suggests that structured learning can prove very beneficial to those pupils who are experiencing learning difficulties.

Whatever approach you tend to choose for your planning, it is important to include variety of strategies that respect the diverse ways in which different pupils take in and process information, such as the multiple ways in which individuals manifest their intelligence (Gardner, 1983), the pupils' unique combination of learning patterns (Johnston 1996.1998) and their varying interests.

In other words it is important to know your class well. Make sure you have a good understanding of the ability level (or readiness level) of individual pupils in your class. Know their strengths and learning patterns, survey their interests and finally know those pupils who might offer you behaviour management problems. All this will help you plan for motivating and engaging instruction. It will help you plan for strategies and activities that keep the class on task up to completion of a given activity.

Once you know the individual pupils in your class you may start your instructional planning. The diagram below suggests a planning cycle in which there are steps or stages that are considered important in order to prepare effective learning experiences which cater for all the learning needs of the pupils in the class.

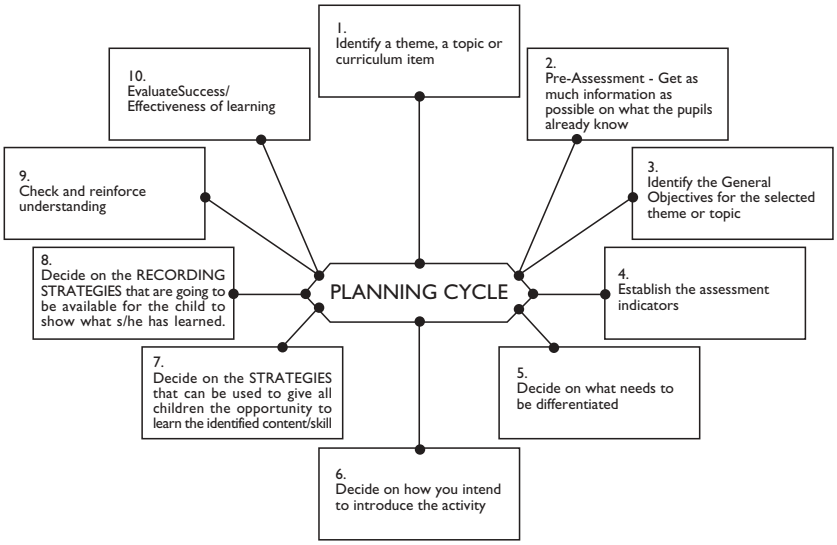


Chart 10: The Planning Cycle

What follows is a set of questions and tips that one can consider for each planning step[3].

STEP 1: Identify a theme/topic or curriculum item

- Do I have enough information about the topic? **Caution**, especially for those who score high in precision, avoid over doing it with information and detail.
- Is the material/information age-appropriate and content relevant?
- What are the different aspects of the topic? Make sure you have them clearly mapped.
- Decide whether you intend to have all children produce the same end product or whether you will leave it up to the group or individual to decide on the end product.
- Decide whether you will want the class to share a common experience or to allow different children to experience different stimuli for the same main topic.

STEP 2: Pre-Assessment - Get as much information as possible on what the pupils already know.

- Has this topic been covered in previous years?
- To what extent has this topic been covered?

- Decide how best to assess knowledge, understanding and skills related to in this topic. You might want to give a formal test or use some of the suggestions in Chapter 9 for a less formal understanding of the pupils mastery of the topic.
- Does the child already have the conceptual understanding that the topic demands?
- If not, what experiences/activities can be planned to extend the child's understanding prior to the main activities?
- What are the resource implications to this?
- Does the activity require
    - The presence of a facilitator?
    - Additional materials/resources?
- What are the implications for group composition to facilitate this?
- Will the child be able to follow instructions, written or verbal?

STEP 3: Identify the General Objectives for the selected theme or topic and write them in 'child language'.

- Are your objectives, thus your expectations, realistic and achievable?
- How will they be communicated to the child?
- Are your objectives and accompanying content appropriate for all the pupils?
- If not, how do you intend to modify your planning to meet the needs of those pupils in your class who might need support?
- How do you intend to extend the work for those who can achieve deeper understanding?
- Do you intend to introduce new content or skills?
- If it is not new, will the activity include reinforcement of earlier work?
- What process skills and attitudes do you intend to encourage the child to use and develop?
- Will the activity involve the child in curriculum area-specific skills, or will they be cross-curricular?
- Are your objectives written in a language that the pupils in your class can understand?

STEP 4: Establish the assessment indicators

- Indicate how you would be assessing the child's performance; would it be through:
    - Your observation of a specific activity?
    - Listening prompts?
    - The child's finished product?
    - The process skills used?
- How will this be communicated to the child?
- How will the child's success be celebrated?

STEP 5: Decide on what needs to be differentiated

- Is it the
    - Product?
    - task/activity/ies?
    - classroom organisation and management?
- Are the teaching and learning strategies and activities varied enough and appropriately balanced?
- Are you planning for pace and variety?

STEP 6: Decide on how you intend to introduce the activity

- Decide on how best to introduce the lesson. Would it be best to use
    - The whole class approach?
    - Small groups?
    - Individual?
    - Pairs?
- If linked to a previous activity, how can the link be made apparent?
    - Through a quick revision of the main concepts?
    - Asking leading questions?
    - Giving a revision written exercise?
    - Giving a hands-on application activity?
    - A combination of the above?
- Can you give the class a first hand experience?
- Is the activity open-ended, allowing for success at all levels?
- What needs to be organised and prepared for this activity?
- Is the activity going to be done in groups, pairs or individually?
- Is the duration of the activity reasonable?
- Is it clear how this introduction is going to lead you to the main development of the lesson?

STEP 7: Decide on the strategies that can be used to give all children the opportunity to learn the identified content/skill

- What is the classroom organisation that you will be using?
    - Independent work?
    - Cooperative groupings?
    - Pair work?
    - A combination of all the above?
- What instructional strategies are available for you?
    - Look at the Checklist of Instructional Choice and decide on which strategies best serve the delivery of the identified content and skills.
    - Which learning patterns would be mostly needed for the chosen instructional strategies?

  - How can you support those whose learning patterns do not fit the instructional strategies/requirements?
- Are the content or/and skills appropriate to all the pupils?
- If not, how do you intend to modify the content to the appropriate level of the child?

STEP 8: Decide on the Recording Strategies that are going to be available for the child to show what s/he has learned.

- Before you decide on the recording strategies that you would allow, revisit your learning objectives and then decide what it is that you want to see as a product.
- The following are some available strategies that you can make available to the child:
  - **Written:**
    - ❑ Independent handwritten work
    - ❑ Collaborative writing with peer(s)
    - ❑ An adult (e.g. facilitator) acting as a scribe
    - ❑ Word processor
    - ❑ Fill-in the blanks exercises
    - ❑ Worksheets with picture clues
    - ❑ Spellchecker
    - ❑ Use of an appropriate dictionary
    - ❑ Matching exercises
    - ❑ Underlining the right answers
  - **Visual:**
    - ❑ Taking photographs
    - ❑ Drawing diagrams
    - ❑ Model
    - ❑ Drama
    - ❑ Dance
    - ❑ Video
    - ❑ Using graphs or charts
  - **Oral:**
    - ❑ Tape the whole activity or a sequence of actions or the final findings
    - ❑ Reporting to the teacher or to a peer or to a small group or to the whole class
    - ❑ Drama / role play

- What are the resource implications of the recording strategies to be offered?
- What are the organisational implications for the recording strategies to be offered?

STEP 9: Check and reinforce understanding

- How is this to be done?
  - Discussion
    - ❑ Child within pair?
    - ❑ Child within a group?
    - ❑ Child within whole class?
  - Re-reading the main text
  - Sharing child's own writing
  - Use of games
  - A written exercise (text book/worksheet)

- Does the child require additional small-scale experiences to reinforce the content learned?
- If so how is this to be organised?
  - Does it require peer group support?
  - Does it require the support of the facilitator or an additional adult?
- What are the implications of this for
  - Resources?
  - Classroom management?
  - Time?

STEP 10: Evaluate Success/Effectiveness of learning

With the class:

- Has the group achieved the set objectives, both social and academic?
- What evidence of success is available?
- How was it or how could it be recorded?
- What were the stages leading to the finished product?
- Was the group size and organisation appropriate?
- Did the group function well?
- Did everyone in the group participate?
- Were there any conflicts? How were they resolved?
- How was support given within the group?

On your own:

- Were the pre-set objectives achieved? How do you know?
- Were the objectives appropriate for the individual child?
- What evidence of success is available?
- How did you record your observations?
- Do they inform future planning?
- Do the samples of work give evidence of attainment?
- Was the learning environment conducive to learning?

- Did the group function well? Were the group dynamics good?
- Was your support to individuals and groups appropriate?
- Was your support empowering to the individual child?
- Was there a mismatch between the linguistic/conceptual demands of the activity and the child's current ability/level of development?
- How did you remedy for this mismatch?
- Was there a mismatch between the activities and the learning profiles of individual pupils?
- How did you support these pupils?
- Did the activity present the child with failure?
    - How?
    - Why?
- What adaptations of approach might be required in the future?
- Was the form of recording appropriate?
- Where you able to record small increments of learning at the child's own level?
- How would you communicate this information
    - To the child?
    - To parents?
    - To your colleagues in school?

(For more questions to help you evaluate your planning and teaching read **Reflective Questions** by Mr. Anton Cardona in the Planning Kit **- C.D. 2**nd edition. Edited and coordinated by Colin Calleja)

[3] Adapted from
Special Educational Needs in Primary Schools: Differentiation and the Code of Practice, Sheffield Hallam University Press, 1995.

CHAPTER 7

WRITING LEARNING OBJECTIVES

Writing learning objectives is one of the most important skills teachers should possess. The professional teacher needs to have certain expectations based on evidence of past and current achievement, the level indicators expected of the relevant age group, and the range and content of work expected of that age range. These expectations must be used to set clear and focused learning objectives.

How can we define learning objectives? Learning Objectives are short term, immediate and readily assessable statements that answer the question:

> *At the end of this lesson/session, what do I want my students to* ***Know, to do*** *or* ***to understand*** *which will take their learning on from where it is now?*

It is therefore a way through which a teacher makes clear his or her intention of what she intends the pupils to learn.

As stated above, teachers would normally need to plan, and thus write, objectives for five main domains of learning. These domains are the following:

- The knowledge domain
- The skills domain
- The domain of understanding
- The attitudinal domain and finally
- The affective domain

The Knowledge Domain

The objectives that target ***knowledge*** answer the question:

- **What do I want the pupils to know that they didn't know before?**

  Example: *By the end of the lesson we would have learned the main reasons why the Knights of Malta came to Malta.*

  By the end of the lesson we would have learned the life cycle of a butterfly.

  By the end of the lesson we would have learned the 2 times tables.

But, as we know, while the knowledge domain is an important aspect of the primary syllabus, it is not the only domain that a learning experience should target. Teachers should also target the particular skills embedded in the subject being taught. This will help pupils translate their knowledge into performance.

The Skill Domain

The objectives that target ***skill*** answer the question:

- **What do I want the pupils to be able to do that they were not able to do before?**

  Example: *By the end of the lesson we would be able to use accurately the full stop and the commas when writing sentences.*

  By the end of the lesson we would be able to draw a map of the school playground.

  By the end of the lesson we would be able to add two quantities together.

The Domain of Understanding

The third domain that teachers need to plan and target learning for is ***understanding***. The objectives that target ***understanding*** answer the question:

- **What do I want the pupils to be able to understand that they did not understand before?**

Here the teacher wants the pupil not only to acquire some facts about a specific topic, but to manipulate those facts into an appreciation of how a certain thing developed to meet specific requirements. For instance, it would not be enough for a group of children to learn the Ten Commandments and the biblical story that surrounds this important event, but one would expect that the pupils understand what each of the Ten Commandments demands of us. Real learning consists of acquiring, making sense of, relating and synthesizing (further on in this chapter, a discussion of Bloom's taxonomy will help us understand how this can be achieved).

Example: *By the end of the lesson we would be able to understand why, when we drop an object, it always falls down.*

By the end of the lesson we would be able to understand that multiplication is repeated addition.

Another helpful way of developing cognitive objectives is by using Bloom's Taxonomy. Bloom classifies the cognitive functions into a hierarchy of six levels, namely:

LEVEL	EXPLANATION	EXAMPLE
KNOWLEDGE	Learners have knowledge of and the ability to recall or recognise information	The learner can recite the 2 times multiplication table
COMPREHENSION	Learners understand and can explain knowledge in their own words	The learner can explain why 2 eights and 8 twos are equivalent
APPLICATION	Learners can apply knowledge, that is they are able to use it in practical situations	The learner can calculate the cost of buying two pencils costing 8c each
ANALYSIS	Learners are able to break down complex concepts or information into simpler, related parts	The learner can break the numeric statement 2x8 into subparts or possible combinations (2x2x4 or 2x2x2x2)
SYNTHESIS	Learners are able to combine elements to form a new, related entity	The learner can hypothesize that if 2 eights are 16, then 3 eights can be determined by adding another 8 to 16.
EVALUATION	Learners are able to make judgements.	The learner can devise a strategy for evaluating the accuracy of solutions to multiplication problems with 8 as one integer.

Chart 11: Bloom's taxonomy of the cognitive domain with examples

The chart below can help us write objectives that target a particular level of attainment. The verbs are also tentatively classified under the four learning patterns. This is aimed:

- At helping the teacher target, as much as possible, all four patterns in preparing for a learning episode, and
- At having a clear understanding of what patterns are at play when teaching for a particular objective, thus what type of support would be needed by those who avoid such pattern/s.

Article I. Verbs in Use

Level	Sequential	Precise	Technical	Confluent
Knowledge (to know about)	list; identify; locate; match; outline; recognise; follow directions; organise; sequence; classify; plan; order; arrange; reproduce.	define; label; describe; name; tell; state; recognise.		
Comprehension (to understand)	convert; apprehend; comprehend; summarize; model; demonstrate.	explain; interpret; describe; expand; measure; prove; paraphrase; rewrite; look for; summarize; apprehend; comprehend; defend.	illustrate; apprehend; comprehend.	interpret; imagine; apprehend; comprehend.
Application (to use knowledge and understanding)	choose appropriate procedures; prepare.	produce (written); modify.	apply; use; solve; erect; operate; produce; construct; assemble; build; perform; demonstrate.	invent; dramatize.
Analysis (to break down)	organize; break down; separate; subdivide; categorize; diagram.	analyze; dissect; conclude; differentiate; debate; diagram.	diagram.	generalize; relate.
Synthesis (to combine; to create)	plan; organize; rearrange.	compile; modify.	produce; formulate; reconstruct.	create; combine; design; compose; devise.
Evaluation (to judge)	decide.	judge; evaluate; develop criteria; appraise; criticize; support; observe; examine; compare; contrast; conclude.		improvize.

Chart 12: Verbs in use according to Blooms Cognitive domains classified under the four learning patterns

THE ATTITUDINAL DOMAIN

The next domain worth considering is the **attitudinal domain**. Not all learning is related to the above discussed domains. It is equally important to formulate learning objectives about the way in which such learning is acquired. McBer (2000) in his report identifies five levels of activity that illustrate and exemplify this teaching skill:

- Creating a learning environment that is attractive, comfortable and stimulating.
- Showing how, by giving clear explanation and demonstration
- Supporting practice, by engaging pupils through use of questions
- Driving for understanding, by making pupils work things out for themselves, and finally
- Motivating pupils to learn independently by providing opportunities to show that self-learning is enjoyable.

Such objectives could be written by answering to the question

- **What would the pupils 'feel' about the subject under study?**

  Example: *By the end of this topic we would discover the fun of engaging in scientific inquiry through exploring different types of leaves.*

  By the end of the lesson we would be able to appreciate different regular shapes used in the school buildings.

THE AFFECTIVE DOMAIN

The final domain that we would be discussing here is the **affective domain**. This important but often ignored domain refers to the social relations, communications and conversations between teacher and student and between student and student. As we all know from our own teaching experience, good relations help to promote the learning that takes place. Classroom organization that promotes collaboration would surely enrich the learning environment and help in creating a low risk classroom environment that in turn facilitates learning.

This principle can once again be applied to the formulation of learning objectives. Thus for instance a learning objective in the affective domain would read something like this:

> *By the end of the lesson we would have succeeded in collecting data on floating and sinking objects and through working collaboratively in groups in turning this data into a bar chart .*

CONCLUSION

In the above examples an effort was made to write objectives in such a way that fits the particular domain. Often one finds that in formulating learning objectives one often needs to use more then one domain. For instance in a science lesson a teacher might ask the class to experiment with a number of objects and test whether they float or sink in water. The teacher would then ask the class to turn their findings into a bar chart. Such an objective would require a mix of abilities from the pupils. They must have knowledge of how to construct a bar chart; and an understanding of how the data is to be organised and displayed. If they are further asked to use the computers to generate the chart they may need keyboarding and IT skills.

Finally many teachers ask "What should come first: the lesson or the learning objective?" While there is no right or wrong answer to this question, the learning cycle in the previous chapter summarizes what I consider the most helpful way of going about planning a learning episode. In my opinion, first the teacher must identify the content/topic that needs to be taught and the level of knowledge, skill and understanding that the kids already have. Once this is established, the teacher must ask what his/her intentions for teaching that part of the content are and what her/his aims are for the pupils to know, do and/or understand. In other words, what learning outcomes are the pupils intended to gain? In writing such objectives the teacher must consider that the curriculum is more than the knowledge base that is prescribed by the syllabus and thus, in writing one's learning objectives, care needs to be taken in order to develop and advance all the other learning domains.

CHAPTER 8

SOME INSTRUCTIONAL AND CLASSROOM MANAGEMENT STRATEGIES

Once the learning objectives and the general planning has been done, teachers must have a very clear idea of what needs to be altered in order to facilitate learning for all pupils. In this chapter we will explore ways how we can help pupils learn by:

- Varying the **CONTENT**
- Varying the **PROCESS**
- Varying the **PRODUCT** and
- Varying the **CLASSROOM ORGANIZATION**

In differentiating the content the teacher would be procuring different activities to provide for different abilities or/and aptitudes. Yet another way of responding to the needs of the learner is by presenting the same content while varying the process through which the content is delivered so that pupils will be able to make sense of the knowledge being presented and practise the skills in their own way. The process can also consider different classroom and group arrangements that can be organized so as to support learning.

Differentiating the product is yet another approach by which a teacher expects different responses to the same activity from different children and proposes different approaches to show their understanding and acquisition of knowledge. In such an approach children are given the opportunity to explore knowledge through different activities and record their work in a variety of ways.

IDEAS FOR VARYING THE CONTENT

The traditional view of this approach to differentiation was to have ability groupings and each would be given different handouts or worksheets graded according to ability. Research has been clear about the repercussions that such arrangements can have on the learners' self-esteem and motivation and on tracking learners through teachers' procedures that in effect reproduce existing patterns of inequality (Burns 1982; Lawrence 1987; Abraham 1995; Jackson 1964; Coard 1971; Rist 1971).

It is therefore important to tread with caution. Hart (1996) documents the shift from categories of ability to individual needs. The Department of

Education and Science (DES) in London clarifies that 'difference' other than that of attainment or ability in a particular area also needs to be acknowledged and provided for. In its document the DES calls for assignments and individual work that "allow for different interests, capabilities and work rates so long as this does not isolate pupils or deprive them of necessary contact with other pupils or the teacher". The document also emphasizes the need to differentiate the approaches by stating that "some pupils need to proceed slowly, some need a predominantly practical approach and many concrete examples if they are to understand abstractions; some move quickly and require more demanding work which provides greater intellectual challenge; many have a variety of needs which cannot be neatly categorised." (DES 1995 p.47, cited in Hart, 1996)

In a differentiated task, while the core work may be the same, different pupils may require different extensions. There will be those individuals that in a particular subject/topic would need support, reinforcement and practice of the same skills or tasks so as to learn it. Others might, on the other, hand need extension work which challenges them further.

McNamara and Moreton (1998) propose that the healthiest way of allowing for such an approach without incurring the repercussions highlighted in the literature would be by providing opportunities for peer tutoring or what they term as differentiation by paired task. In their words "Differentiation by paired task is based upon the premise that children, because they have different strengths and different ways of learning as well as different weaknesses, can help each other both with their weaknesses and their strengths so that all children are working to improvement" (p.55)

Some important tips for peer tutoring/paired task approach

- Make sure you set clear targets
- Allow everyone to help one another (use team building activities)
- Encourage everyone to learn about how each of them learns best (see chapter 5)
- Make sure you emphasize success and create an atmosphere in which learners praise each other's effort

When using peer tutoring the teacher needs to make sure that children learn to collaborate, learn to give and receive help, on tasks and targets that have been identified.

Thus children need to learn

- ***How to give feed back*** - here children are made aware of the importance of positive feedback. The teacher can use brainstorming

to draw out terms that should not be used, like "that's rubbish", "stupid" etc. They can then brainstorm words that they can use instead. Feedback, to be effective, needs to be specific, pointing to aspects of the work which are good followed by something specific that can be improved. Therefore it is not enough to say 'that's good' but you need to specify what is good and what needs to be improved. Teachers themselves need to model this giving of specific feedback.

- ***How to work on set targets in pairs*** - the child who needs support needs to realise for him/herself what his/her difficulty is. The teacher initially needs to model by asking open questions. For example, a child might be having problems in adding numbers with two digits. The teacher asks:
  T: What is your problem?
  C: I cannot do this sum
  T: What is it that you cannot do?
  C: I don't know how to start - should I start from this column or from this?
  T: Okay. Who do you think can help you with this problem? John, Filippa and Jacob seem to be doing well in these sums. Would you like anyone of them to help you? Who would you like to ask?
  C: Filippa
  T: O.k. Can you ask her whether she would like to help you?

Then the teacher needs to help the pupils to verbalize the difficulty and to make sure that the *tutor* explains the steps and not simply gives the answer to the problem. Once the *tutor* explains the steps of adding two digit numbers - the tutee needs to work out some examples under the supervision of the *tutor*. During this stage the role of the *tutor* is to encourage and support the tutee.

Once the pupils get used to these procedures the pupils would be encouraged to ask for help autonomously. What follows are some ideas and skills that the teacher, seeking to create a supportive environment, should foster:

- ***To talk about their strengths and weaknesses*** - Children need to be given the opportunity to talk in pairs about what they feel to be their strengths and weaknesses. This pair sharing should then be followed by a whole-class circle where strengths and weaknesses can be declared so that children would get to know each other better and thus will be able to match themselves with someone who can support them and help them. In such sharing exercises children should also be encouraged to share their learning patterns, what patterns they prefer to use when learning and what patterns they normally avoid. This will help them internalize their learning patterns and use this self-knowledge

to ask for help from the appropriate person and give support in a way that is most appropriate for the tutee. By reflecting on the ways in which they go about learning and sharing it with others, they would learn about how they learn and not just what they learn.

- ***To use verbal and non-verbal skills needed for helping others*** - There are a number of skills that children need to learn to be effective in helping each other. The most important include:
    - ❑ *Taking turns*
    - ❑ *Non-verbal skills such as nodding and smiling*
    - ❑ *Speaking and listening skills such as paraphrasing and summarising*
    - ❑ *Linking ideas*
    - ❑ *Encouraging each other*
    - ❑ *Acknowledging the worth of other persons' contributions by making references to each other e.g. John was right in stating that…etc.*

Some of these skills come natural to some but, for most, these skills need to be taught and practiced. Teachers must realise that they are not wasting time when they dedicate time to teach and practise such skills. Once children acquire these skills they are able to talk together on tasks, listen to one another, share out the task and contribute to the product of the task more efficiently.

One way one might teach such skills is by organising the children in groups of three, one taking the role of observer. Using an observation schedule such as the one below one would be able to give feedback on how well the tutor and tutee have carried out the skill or skills they have been practising.

	OFTEN	RARELY
Looking at each other		
Smile at each other		
Listen to each other		
Take turns		
Encourage each other		
Work things out		
Remember what was said		
Say thank you		

Sample 1: Observation Schedule

- ***The skills of teaching*** - teachers have been trained to teach and therefore one cannot expect pupils to teach something without being taught how to go about helping colleagues in their area of difficulty. McNamara and Moreton identify five levels of helping. These are:
    1. Demonstrating
    2. Doing it with them
    3. Prompting as they do it
    4. Encouraging and prompting when necessary
    5. Praising

The following example taken from McNamara and Moreton's book *Understanding Differentiation* illustrates how these five levels can be used:

Example: Writing the letter "a" correctly

1. *Demonstrating* - the tutor writes the letter several times and uses verbal instruction to themselves, 'start in the middle, all the way round, up to the top, down the stick and round and flick' with the tutee watching.
2. *Doing it with them* - the tutor holds the hand of the tutee whilst they write the letter and both say the verbal instruction.
3. *Prompting as they do it* - tutee holds the pencil alone and both say the verbal instruction and gradually the tutor lowers their voice so the tutee is saying and doing it alone.
4. *Encouraging and prompting when necessary* - tutee writes alone and tutor says 'well done, that's right' and only gives instructional prompts when needed.
5. *Praising* - tutee writes several letters and the tutor praises their effort and their result, pointing out the correct formation of the letter without referring to any that are not correctly formed.

IDEAS FOR VARYING THE PROCESS

What follows are some general ideas for differentiating both **the process.** Teachers can think of many other ways of differentiating the process and thus they should not limit themselves to the examples given below. It is important to note here that differentiating the task would require the teacher to pre-assess the class. Normally this is done a few days before the teacher introduces the new topic or area of study. For further details see the chapter on assessment.

- ***Using reading materials at varying readability levels***
  Class/school libraries are a must in today's world. The books should be carefully chosen to meet the diverse needs of all learners within that particular class or school. Books should meet the interests as well as the age level of the pupils. A cheap way of providing the class with

multiple books for them to choose from is the Internet. On the Internet there are sites such as, ***http://www.readinga-z.com*** that provide cheap but very good downloadable books which are age-and-level appropriate and other resources that teachers can use to support learning.

- ***Putting text materials on tape***
  Some children might have problems in the area of reading and comprehension of the written word; this might affect their comprehension in all subject areas. It is therefore important that while such problems are to be tackled specifically, the pupil's learning in other areas is not hindered. Also through such a simple technique a child can practise reading by listening to the recorded passage while attempting to read the words/sentences from the book.

- ***Using spelling or vocabulary lists at readiness level of pupils***
  Age-and-level appropriate reading material would have vocabulary lists that are at the readiness level of the pupil.

- ***Presenting ideas through both auditory and visual means***
  Multi-sensory approaches are surely a very effective way of exposing children to different types of knowledge. Research in learning styles emphasizes the fact that different individuals have different ways of encoding and decoding knowledge. Some might need to visualise, others might have a refined auditory approach to learning while others might need to experience tactile approaches.

- ***Presenting ideas through emphasising different learning patterns***
  By consciously adapting the content and material to be learned to the four learning patterns, children with predominance in any one of the learning patterns can better comprehend the learning task. Some children might need very specific instructions, with step-by-step directions; others might need to be allowed to ask for more information, while others would need to explore various methods and yet others might need some sort of hands-on, real life experience.

- ***Using reading peers***
  This approach is different from the recorded texts approach in that this time you have a human relationship. The pupil is reading to someone and this reading peer is reacting to what is being read. It is important that pupils are trained to listen to each other, encourage and support each other and correct the reader where necessary.

- ***Meeting small groups to re-teach an idea or skill for struggling learners, or to extend the thinking or skills of advanced learners.***
  Here the teacher or/and the facilitator can guide their growth in a specific area. Struggling learners might need focused re-teaching of an

idea or concept or skill. Therefore it is important for the teacher to be clear in his/her mind and specific about the objectives of the particular re-teaching. Make sure you use different approaches to teaching. Sometimes children simply did not follow the approach you previously used, and simply varying the approach would make it easier for the pupil to understand. Therefore once again knowing the pupils' preferred learning patterns is crucial in re-teaching.

You may also differentiate the process or the activities by using the following ideas:

- ***Graded activities for pair work***
  The teacher prepares varied levels of activities to ensure that pupils explore ideas at a level that builds on their prior knowledge and prompts continued growth. The learning materials should also respect the different learning modalities. The instructions need to be clear. Allow time for practice and for both learners to take turns to be the tutor and the tutee. Pupils need to be taught how to demonstrate and explain clearly and orally before moving to represent it in written form. Where appropriate, provide answer sheets so as to self-assess their work.

- ***Interest centres***
  Interest centres are collections of materials (worksheets, activity packs, educational toys, etc) which learners can use to explore, reinforce, or extend a particular skill or concept. Thus a teacher might have a *writing centre, a science centre or a math centre.* Such centres preferably have tasks that are adjusted to readiness level and learning pattern preference. Remember that the idea here is not to have all pupils do all the activities but to offer different avenues to practise or explore a topic.

- ***Stations***
  Stations are different places in the classroom where students work on various tasks simultaneously. Stations work in concert with one another and are linked to one another. They can be used with students of every age and in all subjects. Stations normally require flexible grouping because not all pupils would need to go to all stations all the time and not all students would need the same amount of time in each station. These stations are normally set up after the teacher has pre-assessed the pupils on the specific topic or area of learning and then stations are set with activities that are either at the **teaching level** (here pupils receive direct instruction from the teacher. Pupils work at the board or in pairs on the floor or at the table perform a number of activities), or **Proofing level** (here pupils are asked to work out a series of activities in a folder with their name; once they finish they would be asked to discuss their work with their partners, explaining the process by which they completed the activities and preferably using other ways of representing their understanding to their partner); yet

another station would be working on the **practice level** (here pupils will be working on practice exercises for which they need additional experience. Worksheets, computer programs, and textbooks are used. Pupils would typically complete a self-evaluation and leave signed and dated work at the station). Another level would be the **Application level** (this is normally a station in which pupils who have reached a good level of understanding of a particular skill would be asked to apply their understanding in solving a applied problem). Finally another station would be the **Project station** (here pupils work alone, in pairs or in small groups to complete long term projects that would require the use of the acquired skill or knowledge).

- ***Personal learning contracts***
  Contracts are written agreements between the teacher and the pupil. This contract outlines:

  - What students will learn
  - How they will learn it
  - In what period of time
  - How they will be evaluated.

  Learning contracts can blend skill and content based learning matched to pupil's needs, readiness, interests and learning preference. Tomlinson (1999) sets some assumptions for a contract. A contract:
- Assumes it is the teacher's responsibility to specify important learning and make sure pupils acquire them
- Assumes pupils can take on some of the responsibility for learning themselves

  She also specifies the ingredients that a learning contract should have, namely, a contract should:
- Clearly delineate the skills that need to be practised and mastered
- Specifies working conditions to which pupils must adhere during the contract time, such as time constraints, homework and class work involvement.
- Sets positive consequences when pupils adhere to working conditions. It also sets negative consequences if pupils do not adhere to working conditions.
- Establishes criteria for successful completion and quality of work
- Finally it should include signatures of agreement to terms of the contract by both teacher and student.

  Thus, make sure you

- Start small (1 or 2 day) contracts.
- Explain the role & function of contracts.

- Negotiate contracts with students whenever possible.
- Help set realistic deadlines.
- Renegotiate the contract if it isn't working.
- Solicit student feedback.
- Gradually involve students in contract development.
- Don't expect all students to be able to use contracts effectively immediately.
- Don't expect all students to like contracts.
- Don't assume contracts can take the place of regular instruction.
- Don't use contracts without a good management system.

- ***Manipulative games***
  Manipulative games can be powerful learning strategies. However, they should only be used if they have a sound educational purpose related to whatever is being learned. Avoid games that build on competition and end up having only one winner. Make sure to design games that require the use of academic skills, rather than luck. Partin (1995) insist on the following criteria:

- A game should be fun, challenging, have a clear purpose
- The teacher is clear about how this game will further the learning objectives, and what skills are being developed through this game
- Make sure that the game is age-appropriate, rules are relatively simple and a clear scoring system is determined.

- ***Varying the length of time a pupil takes to complete a task***
  From our observations of classroom practice it is evident that teachers often mix good time management with an over emphasis on having all the class finish a particular activity at the same time. Many teachers argue that this is important on two counts (1) so as to have an ordered class and pace (2) so that children learn to finish in time - a skill for when they have to sit for an exam. In my opinion such arguments misplace the emphasis from the value of learning to performance during an exam. Some children might need more time to finish a task than others, not because they are less intelligent but simply because they need more time to organise and look for more details. Therefore one simple but important consideration should be that of varying the length of time a pupil takes to complete a task.

- ***Compacting***
  Compacting is a strategy that provides for the student who is very capable and knowledgeable in a particular topic in a subject area. "This strategy can be used on occasion in order to enrich their curriculum, enhance and stretch their thinking, and help them develop into more self-directed learners" (Chapman & Gregory, 2002). This strategy can be developed in a three-stage process in which a teacher

1 Assesses what a pupil knows about the material to be studied and what the pupil still needs to master;
2 Plans for learning what is not known and excuses the pupil from that material that is known;
3 plans for freed-up time to be spent in enriched or accelerated study.

- ***Varying questions***
  In class discussions and on tests, the teacher varies the sort of questions posed to learners according to their readiness and interests. The teacher needs to prepare questions that require different levels of engagement. The teacher needs to avoid labelling pupils and provide all pupils with questions that are challenging but not too difficult for their level. Pupils should also be given time to think before answering. A good strategy for achieving this is to give everyone a minute to think (think time) before giving an answer.

IDEAS FOR VARYING THE PRODUCT

Through the recognition that children, as well as adults, have different ways of processing and demonstrating knowledge and skills, we are able to entertain the idea that one can have learning objectives reached in different ways and by producing different products.

In Chapter 5 it was argued that some children might be able to demonstrate their knowledge and understanding through practical, hands-on activities and by orally explaining their acquired knowledge. Such individuals might find it hard to express themselves in written tasks. Therefore the main principle is that through varying the stimuli or the tasks and through providing such pupils with alternative ways of recording their learning, all learners would be able to succeed and demonstrate their knowledge, understanding and skills.

Ideas for varying the Stimuli

McNamara and Moreton (1997) suggest the following ideas:

- Provide a mixture of information sources such as different artefacts or multiple handouts with information about the topic being covered or a library of reference books that provide the class with a variety of reading levels.
- Give a variety of different inputs to the whole class such as video, presentation by outside speaker, teachers or children with knowledge or expertise in the field.

Other ideas would be to

- Provide the class with real objects and situations to handle and 'play' with

- Provide materials and instructions in both Maltese and English
- Draw upon multiple intelligences in a real world way
- Provide materials that are learning pattern friendly e.g. materials that give detailed instructions and emphasizes order and sequence, others that provide for more detailed information and use of research skills, yet other materials should emphasize a problem-solving situation that might require a hands-on activity. Finally, for those who use their confluent pattern to a great extent, you may have materials that, while allowing them to freely explore the topic, allow them also to experiment with different possibilities.

One way of varying the end product is by providing children with a common, open-ended task. In such an activity the task is the same, e.g. to learn about plants and animals that live on Malta - but the way in which the task is undertaken is not prescribed and all possible ways of gaining such knowledge are equally valid and so is the method that they choose to record their findings and knowledge gained.

Ideas for varying the recording

Recording what one has learned is one of the important stages in the learning cycle. The ability of learners to provide evidence of what they have learned is undoubtedly a very important aspect of their cognitive growth. An important teacher's role is to assess a learner's growth so as to plan for successive learning experiences and one way a teacher can assess such growth is by assessing the pupil's recorded information. What is unacceptable in a differentiated classroom is that only one method of recording, namely the written method, is accepted. Children should be encouraged to use as many ways of recording information as possible. Below one can find some ideas of recording knowledge and understanding which do not necessarily require elaborate writing skills:

- ***Flow diagrams and mind maps***
  This technique can help learners display what they know about a subject and show them where they are and where they might go next in their explorations. These graphic representations of knowledge help pupils who might have a strong sequential pattern and not so strong precise pattern, thus finding it hard to explain his/her understanding using a lot of words. Obviously this strategy can also be used to develop the students' ability to think systematically (thus it can be used with those that avoid or use as needed the sequential pattern to help them stretch such pattern). It may also be used to help students connect details to broader ideas and concepts. This strategy is well suited to the emerging literacy of young children who can use a combination of pictures and labels to represent what they know about a topic. In the beginning,

with young learners these mind maps look very much like murals- it takes time and practice for young learners to start organising their ideas in a particular structure. For more details and ideas on how to use such strategies refer to ***Blueprints For A Collaborative Classroom*** pages 32-50**.**

- ***Cartoons, Drawings and collages***
  Using such activities could help pupils organise, clarify and express their thoughts on a wide range of learning experiences. This could be a chance for those who communicate visually more adeptly than verbally. Such activities, that could also be used to encourage collaboration, may be employed to help pupils consolidate and represent shared knowledge and experiences, help them in communicating knowledge and ideas with others and add variety to the ways that students convey academic learning.

- ***Models***
  Children in general enjoy creating models. Many simple, multipurpose activity games such as *building blocks, Lego, Meccano* or materials such as clay, Play Dow, etc can be used by children to create objects that demonstrate their understanding and exploration of the world around them. In building a model children would be representing something they have learned in geography, history or science. Model building can also be used to help technical learners who would need to first experience hands on, in order to express and articulate their knowledge and understanding. Models can thus help pupils make abstract ideas more concrete. For young learners, whose fine motor skills and knowledge of how things work are still developing, one needs to use materials that are large and easy to handle and manipulate. You might need to dedicate time to teach and practise some basic skills such as holding and using a pair of scissors, gluing and so on.

- ***Role Playing***
  Role playing should be used with children, especially young learners, to apply and extend what they know and believe to new situations. Such an activity can help children express what they know and have understood in a very natural way. It also deepens their understanding and helps them consider alternative ways to solve problems in a safe environment. Role playing offers confluent processors the opportunity to improvise. Sequential processors might be inhibited by this activity because it requires spontaneity. Moreover, technical processors might be inhibited by the fact that they have to speak in front of the class. However, if the role play is given before, it can be a way for the learner that starts his learning with the technical pattern to bring the learning experience to a real-world relevance.

- ***Dance and movement***
  Both these activities can be used as yet another way of expressing their thoughts and feelings. This mode of expression can broaden pupils' opportunities to contribute as learners in classroom life. To express knowledge and understanding of a particular idea one needs to encourage improvisation and creativity. In drama roles are much more defined than in role play. Each character is given instructions as to the role they are to demonstrate and suggestions as to the behaviours and techniques to be included. Thus, this method might be ideal for sequential processors. Those learners with a leading score in confluence might find this strategy a little too constraining.

  Some other strategies and/or activities that can be used are: Note taking, key word lists, tracing, charts, video recording, audio tapes (to record their voice), digital photography.

Example

The learning objective for a social studies lesson is for the children to become familiar with the events that build up to Malta becoming an Independent State. The children may choose to demonstrate such knowledge through cartoons, drawings, drama, tape, video of the drama, posters or writing a factual account, album with pictures of the events with short descriptions, interviews with parents or grandparents or other adults who lived at that time. This variety of recording will produce a variety of products but the learning objective would remain the same for all the class, namely, that of demonstrating knowledge of the events leading to Malta obtaining its Independence in 1964.

IDEAS FOR VARYING CLASSROOM ORGANIZATION

In order to vary, adapt and differentiate learning one also needs to create classroom organisations that facilitate such attempts. The way children are grouped to work together is an important factor to be kept in mind when planning differentiated instruction. The structures should offer a low-risk learning environment in which pupils would feel safe to participate in the learning experience.

Teachers should start by introducing pupils to pair work. "Pair work", suggest McNamara and Morton, "can go some way towards building confidence and reducing risk". At the same time they caution us that pair work fails to "give any practice in performing in a larger arena". McNamara and Moreton 2001 thus suggest the following small group structures:

- The **snowball structure** which start with pairs to "collect'" information and then shared in fours.

- The **Jigsaw structure** can be very useful in dealing with the content aspect of some subjects such as Social Studies and Science. The way it works is for some children to become 'experts' in one aspect of the topic and to instruct the rest of their group in their area of expertise.

- The **Carousel structure** here the whole group is organised into two circles one sitting opposite the other. The children are then asked to take turns to speak.They can then either change over roles with their present partner or change partners first then change roles. Such a structure can be used at the beginning of a lesson to review or recall what we were doing last time, what our learning objectives are or it can be used at the end of a lesson to review learning.

For whole-class structures one can explore the following structures:

- The **Learning Circle** - here the whole class sits in a circle and each child takes it in turn to say 'What I learned today'. This can take place after a carousel or a pairs or group activity.
- The **Reviewing Circle** -The children share what they have learned about a topic so far, in relation to the learning objectives, and what their new targets are. Alternatively they may say what they feel to be their strengths and weaknesses in relation to the learning objectives.
- The **Reporting Back Circle** - This can be employed after using one of the above small group structures to make reporting back both more controlled and manageable. Some resources such as word-cards with questions such as: who? What? Where? When? How? Why? could help pupils devise questions that would then be answered.

CONCLUSION

The above ideas and suggestions might give the impression that teachers would be involved in a great deal of hard work. It does, but no one is expecting any teacher to do everything at one go. Remember what we have stated earlier in this publication that we are and we would remain in this learning route throughout our teaching life and thus while we would encourage teachers to use as many strategies and classroom organisations as possible we emphasise that one needs to do so in a manageable way. The only requirement is to believe in oneself and in the children who can all learn.

CHAPTER 9

ASSESSMENT IN A DIFFERENTIATED CLASSROOM

Assessment is a necessary aspect of the learning process. Through assessment one can gauge the progress a learner has made. It informs the teacher how to adjust instruction during the teaching process. Assessment should also provide ongoing documentation of a student's ability relative to specific attainment standards.

Therefore while learning and assessment should be considered as two separate activities, they should be planned simultaneously. As much as planning learning episodes is important, carefully identifying learning activities to meet the readiness level, interests and patterned learning profile of the pupils, so should assessment tasks be identified to facilitate "ongoing feedback for students that will increase their chances to continue to grow and improve their learning." (Gregory and Chapman 2002)

In this chapter we will delineate our understanding of assessment and explore ways of differentiating assessment. We will also suggest game-like assessment activities that can help you and the learners assess growth in learning. Finally ideas for organizing Portfolio assessment will be given.

UNDERSTANDING ASSESSMENT

Over the years we have used assessment to filter and select students. Often, assessment has been administered at the end of a study phase to compare pupils' performance with each other and use it as a basis for streaming.

Assessment as understood by the author is a tool for ongoing feedback that will help pupils grow in their acquisition of knowledge, understanding and skill. Thus, assessment should:

- Assess pupils' full potential
- Compare pupils' performance with established criteria, rather then comparing students amongst themselves
- Be participatory, thus viewing pupils as active participants in the assessment process
- Be respectful of individual differentiated ways of showing what they have learned
- Be aligned with curriculum and instruction rather then treating assessment as independent of curriculum and instruction
- Be continuous and recursive.

(Adapted from the National Council of Teachers of Mathematics (1995) Assessment Standards for School Mathematics Reston, VA NCTM)

The role of pupils in the assessment process is emphasised in McNamara and Moreton (1997). They claim that assessment would yield better results when learners are aware of:

- ❑ The learning objectives
- ❑ The criteria for success coupled with the learning objectives
- ❑ The assessment activities
- ❑ The criteria for success for the assessment activities

Once such criteria are clear, pupils can participate in their own assessment by responding to topic-specific statements such as the example presented below:

I CAN…

	Yes	No
I can multiply two digit numbers by one digit numbers e.g. 23 x 2	☐	☐
I can multiply two digit numbers by two digit numbers e.g. 23 x 12	☐	☐
Etc…		

Sample 2

Another example of such a sheet would be the following:

Assessment form for the pupils

Name ——————

1. What were the learning objectives of this topic?

2. Were you clear about what you had to do ? Yes ☐ No ☐

If not, why not?

3. Did you have all the things you needed? Yes ☐ No ☐

If not, why not?

Think about what you did.

4. Could you have done this better? Yes No

How?

5. What was the best part of the activity/session?

6. What do you think you need to learn next?

Taken from Differentiation : An Approach to Teaching by Sylvia McNamara 1999

Sample 3: Assessment form for the pupils

Such forms help the student reflect on his/her own learning and give the teacher feedback that can be used to plan for successive learning.

Therefore, teachers should define assessment as yet another tool for success - a tool to help learners gauge their own knowledge, understanding and level of skill and a means for informing the next set of learning goals for the next stage.

As stated above, assessment should accompany the learning process. Therefore before initiating a learning episode that requires acquisition of new knowledge, understanding and/or skills, it would be a worthwhile exercise to assess the level of understanding and/or proficiency of skill that each learner has in the content you intend to teach. Such pre-assessment would help you assess what the pupils already know and can do.

PRE - ASSESSMENT

According to Gregory and Chapman (2002), pre-assessment should be used to find out:

- "What the student already knows about the unit being planned
- What standards, objectives, concepts and skills the individual student understands
- What further instruction and opportunities for mastery are needed
- What requires re-teaching or enhancement
- What areas of interests and feelings are in the different areas of study
- How to set up flexible groups…" (p.38)

Pre-assessment would therefore need to be administered at least a week or two before, so it will give you ample time to plan to meet the specific needs of the learners in your classroom.

The pre-assessment can either be a formal test or you may use some less formal strategies that will give you the required information for your planning. Below you will find some informal strategies that involve the pupils in giving you feedback on their knowledge:

Squaring Off (Involving the whole group)	1. Place a card in each corner of the room with one of the following words or phrases that are effective ways to group according to learner knowledge *I don't know Anything* *I know very little* *I know quite a lot* *I have it!* 2. Tell the students to go to the corner of the room that matches their place in the learning journey of the particular topic 3. Participants go to the corner of the room that most closely matches their own learning status and discuss what they know about the topic or event and why they chose to go there.
Yes/NO cards	Students make each set of cards. They write YES on one and NO on the other. When a question is asked the students hold up YES or NO 1. Ask the students if they know the following vocabulary words and what they mean. 2. Call out a word. Ask someone who has a YES card showing to check it out to make the students realise what you will be asking if they say YES. Another example would be to ask a question from the unit that they will be studying. If they know it they hold up YES, if not, the NO card.
Graffiti Fact	Create a "Graffiti Board of Facts". Post all the things the class knows about the topic of study into three sections: What we know - What we learned - What we want to learn next Suggestions: 1. Let students answer the questions alone at first and jot down their answer. This gives processing and thinking time. Also everyone is engaged in answering the question.

	2. Allow students to write their own responses to be posted. This will create ownership to the answer.

Chart 13: Ideas for Pre-Assessment Taken from Gregory and Chapman (2002)

ASSESSMENT AS FEEDBACK

As stated earlier, teachers and learners themselves need to give continuous feedback: "as teachers we need to offer opportunities for feedback from teachers, from peers and through self-reflection" (Gregory and Chapman, 2002). Below are some strategies that Gregory and Chapman suggest to facilitate such feedback (obviously these are meant to give quick feedback so the teacher can react immediately to those who might be finding the activity challenging):

Thumb it	Have students respond with the position of their thumb whether they are understanding and learning. e.g. Where am I now in my understanding of fractions? Know a lot About fractions  Know some  Know very little 
Fist of Five	Show the number of fingers on a scale of five, 1 being the lowest and 5 the highest e.g. How well do I know this? 1 2 3 4 5 5. I know it so well I could explain it to anyone 4. I can do it alone 3. I need some help 2. I could use more practice 1. I'm only beginning
Face the fact	Happy  Straight  Sad 

	1. State a fact related to the topic that can be answered with an emotion 2. Draw a happy face, a straight face and a sad face on individual cards 3. Hold up the card that matches the emotion 4. Make motions with your hands to imitate the facial emotions 5. Curve up the happy face, flat for the straight face, or curve down for the sad face
Reaching For the top	1. Tell the students to extend one arm straight up in the air 2. Move the opposite hand up that arm as if it were a gauge marked with a 1-to-5 scale. Number 1 is at the shoulder, number 3 is at the elbow, and number 5 is where the fingers are pointed to the ceiling. As the student positions his hand against the upraised arm, the teacher can do a quick scan of the class to check for understanding.

Chart 14: Ideas for getting quick feedback

REFLECTIONS AFTER THE LEARNING

After a learning episode it is important to encourage pupils to reflect on their learning. What follows are some ways to facilitate such reflection.

Wraparounds	1. Participants form a circle 2. Each individual takes a turn telling…. c. Something he will use from information or activity learned today. d. Something he will remember from today e. A significant new idea/concept learned from this session.
Talking Topic	1. Form A/B partners 2. **A** tells a fact to **B**

	3. **B** gives another fact back 4. Partners keep swapping facts back and forth
Conversation Circles	Form a conversation circle with a group of three students. The following is a way to use circles to improve communication. 1. Individuals assume A, B or C names 2. "A" starts talking and continues until given signal 3. "B" continues with the topic 4. Then "C" picks up the topic 5. Continue until there are no more facts or ideas to add to the topic
Rotation Reflection	1. Post charts around the room with a related topic written on each sheet 2. Small groups gather at each location to give ideas and views on the chart topic 3. A recorder fills in the charts with great ideas generated 4. A signal is given for the groups to move to the next chart and respond to the topic 5. Groups continue around the room, visiting each chart in turn and adding ideas 6. The last group remains at the chart, consolidates information and reports it to the large group.

Chart 15: Ideas for encouraging pupils to reflect Taken from Gregory and Chapman (2002)

THE PORTFOLIO - ANOTHER AVAILABLE TOOL FOR ON-GOING ASSESSMENT

A portfolio is a purposeful collection of student work that exhibits the student's efforts, progress, and achievements in one or more areas. The collection

> *must include student participation in selecting contents, the criteria for selection, the criteria for judging merit, and evidence of student self-reflection.*
>
> (Northwest Evaluation Association Definition)

The strength of this assessment tool is its ability to capture a more holistic picture of the pupils' progress. It offers opportunities to document supportive evidence to substantiate the feedback and /or grade awarded. Portfolios are also very much in keeping with differentiated teaching as defined here, since it offers opportunities for ongoing dialogue about quality and criteria that occurs between and among the teacher, students, and peers. They enable pupils to reflect on their work and to analyze quality and set goals.

Why do we use them?

Mainly portfolios are used to:

- Show and document progress over a period of time (through inclusion of initial samples of work and periodic inclusion of other pieces)
- Give a more complete picture of individual growth and abilities
- Encourage pupil ownership (by encouraging pupils to participate in the selection of materials to be included and through their writing of comments and reflections. A portfolio should also reflect a pupil's personality and creativity.)
- Encourage dialogue focused on tasks.
- Supplement (not replace) other assessment methods
- Convey to pupils that development matters
- Help students see their own strengths and weaknesses.

How to start

Introducing the portfolio to the students is crucial. They need to feel that this is something that they own and it will reflect what they have learned during the course of the year. Children need to feel proud of their portfolio. Thus:

- Ask the pupils to cover and design their file (preferably an arch file that would be kept in class).
- Make sure you dedicate time in class to
    - Explain the function of the file/portfolio
    - Suggest the sections that each portfolio includes (you might need to decide whether to have a general portfolio with no subject barrier or to have a section per subject being taught.)
    - Tell the students about the importance of keeping it updated with materials that show progress. These materials are going to help us celebrate progress
    - Explain the procedure of collecting materials for inclusion.

What it could include

Evidence in the portfolio may be varied depending on the subject area. The following are some of the materials that one could include in the portfolio:

- Examples of written work (classwork, homework, projects, etc)
- Journals (here students write periodically summarising the major content they have been studying; write what they feel about the subject or topic at hand; and/ or write their thoughts responding to prompts and open-ended questions that the teacher might ask during a lesson.). Below you may find three samples of standard forms which the pupil attaches to work that is put in his/her portfolio.
- Standardized inventories (such as the Learning Connections Inventory)
- Lists of books read
- Other samples of work of the student's choosing
- Pictures
- Drawings and Creative artifacts
- Samples of work product done on own or with others
- Video/audio tapes of performances or presentations (these can help a child realise the progress made in an area such as reading)
- Pre- and post- tests

Make sure that each item is dated to facilitate the evaluation of progress through the year.

How to select

The selection process of what to include in a portfolio should be done in partnership between teacher and pupil. The teacher can help the child to select samples of work to include by giving clear guidelines. Such guidelines (Gregory and Chapman 2002) may include

- Best piece/something I'm proud of
- Work in progress
- Student/teacher selection
- Most improved/difficult piece

Kathleen and James Strickland (2000) caution us that, for children, making choices can be overwhelming. Children might find it difficult to choose pieces from their work to include in their portfolio. Even when they do, they might not be what the teacher would have chosen. For this reason, teachers should feel free to collect samples of student work that they feel are important in to include the child's portfolio.

While saying this, I need to put in a word of caution: the portfolio belongs to the child and thus we need to avoid turning this collection of works into a

collection of materials such as standardized tests, teacher check-lists, graded report cards and other teacher- dictated materials.

Children should be encouraged to reflect on their choices and they should include a reason for the inclusion of pieces in their portfolios.

It is important also to give the children a sense of audience. Children enjoy sharing their work with others and the portfolio could be a vehicle for this purpose. Below I am reproducing a model of a portfolio response page from Strickland et al (2000). Significant others, in this case parents, can be invited to spend time with the child and go through the collection. The response sheet will then guide parents as they respond to the materials shown. The response sheet also includes the child's response.

Parent-Child
Portfolio Response Page

Dear Parents,
Please spend a few special minutes sharing the writings found in your child's portfolio. We are all very proud of our accomplishments in writing. We also realize the value of having an audience to respond to our work. Please answer the questions together with your child and . . . enjoy!

Student's Name_____ Date _____

(Parent) Which writing sample do you like best?

_____

_____

_____

Tell what you liked most about this piece.

_____

_____

_____

(Child) Which writing sample do you like best?

_____

_____

_____

Tell what you liked most about this piece.

_____

_____

(Parent) Any advice for future writing?

_____

_____

Sample 4: Model of portfolio response page (Kathleen& James Strickland (2002) Making Assessment Elementary)

Student's name:

Date: **Subject:**

This Sample of my work shows my ability to

_____

_____

The steps that I took to produce this work were:

_____

_____

I think that this piece illustrates my ability to do the following things well:

_____

_____

If I had more time to work on this, I would have…

_____

_____

I could use a little more practice or help in the following areas:

_____

_____

Sample 5: A sample of a cover page which the students may use to guide their reflection about a specific piece of work.

Student's name:

Date: **Subject:**

As I examine samples of my work, I have noticed improvement in these areas:

_____

_____

I need more time to practise and/or master these things:

_____

_____

When I look at my work, I find the following things to be most interesting:

_____

_____

Sample 6: A sample of a periodic portfolio reflection sheet

Student's name:

Date: **Subject:**

What I have accomplished in English (reading)

❑ I can use a dictionary to find the meaning of new words

1 → 10

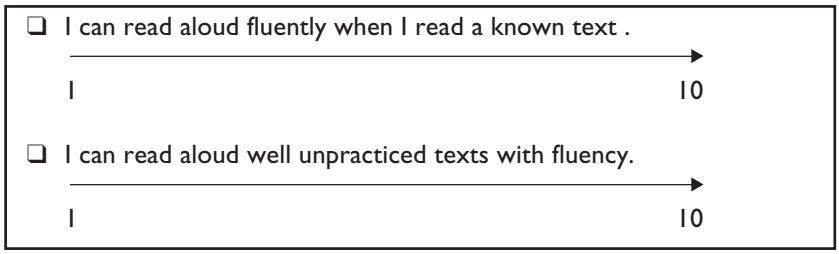
❑ I can use word origins to determine the meanings of unknown words.

1 → 10

❑ I sometimes derive the meaning of the word by getting clues from the context

❑ I can identify words that have different meaning in different contexts and determine the meaning from the context (e.g. their and there, property (as used in science) and property (as used in social studies).

1 → 10

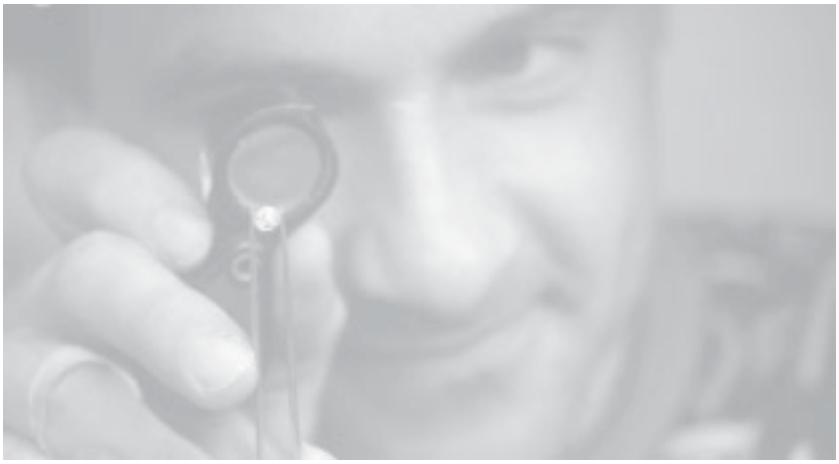


Sample 7: A sample of a self assessment sheet which can be used to assess a period of learning in a specific area.

CONCLUSION

This chapter proposes a variety of assessment strategies that a teacher can use to identify particular learning needs and design appropriate teaching strategies. Assessment should not be seen solely as a measure of acquisition of content, but should be seen as a tool for motivating learners to learn and help teachers observe, analyse and make decisions on the way forward for children in their classroom learning (NCCA 1998).

CONCLUDING METAPHOR



A LEARNER IS LIKE AN UNPOLISHED PRECIOUS STONE. FOR THE UNTRAINED EYE IT'S NOTHING BUT A COMMON STONE. IN THE HANDS OF A SKILLED AND PROFESSIONAL CUTTER, WITH THE RIGHT INSTRUMENTS, WITH GREAT CARE AND PATIENCE, THE STONE TURNS INTO A BRILLIANT, LIGHT-CATCHING PRECIOUS STONE, PRIDE OF ITS OWNER.

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Weston, P. (1992). 'A Decade for Differentiation'. *British Journal of Special Education*. March 1992. Vol. 10, No.1

Weston, P., Taylor,M., Lewis, G., MacDonald, A. (1998). *Learning From Differentiation: A Review of Practice in Primary and Secondary Schools*. National Foundation for Educational Research (nfer).

A SELECTION OF AVAILABLE RESOURCES

All the books and resources listed in this Section (and many of the references listed above) can be found at the Let Me Learn - Malta library housed at the National Curriculum Centre, Hamrun. You may search for these books on the website: www.letmelearnmalta.com

Ginnis, Paul (2002). *The Teacher's ToolKit: Raise Classroom Achievement with Strategies for Every Learner*. Crown House Publishing, UK.

A book full of excellent, practical ideas and classroom strategies that will stimulate your creativity. This book provides you with:

- An overview of recent thinking about learning
- Fifty varied learning techniques for all sorts of subjects and situations
- Practical ideas for managing group work, managing behaviour and promoting personal responsibility
- Six essential ways of operating in the classroom
- Tools for checking your practice - from lesson planning to performance management.

Partin, Ronald L. (1995). *Classroom Teacher's Survival Guide: Practical Strategies, Management Techniques, and Reproducibles for New and Experienced Teachers*. The Centre for Applied Research in Education. NY.

A book with a repertoire of ready-to-use tips and strategies for solving the everyday problems you, as a teacher, face in organizing and managing the classroom, working with students and maintaining classroom control, interacting with parents and other adults in the school community, and coping with the daily stresses of teaching.

Included are tested suggestions, techniques and reproducibles to help you save time and handle problems in specific areas such as classroom routines, motivation, supplies, parent conferences, lesson plans, grading, conflict resolution, testing , team teaching, cooperative learning, homework, and many more.

Tomlinson, Carol Anne and Cunningham Eidson, Caroline (2003). *Differentiation in Practice: A Resource Guide for Differentiating Curriculum* Grade 5-9. Association for Supervision and Curriculum Development (ASCD). VA USA.

This book explores how real teachers incorporate differentiation principles

and strategies throughout an instructional unit. These plans are set for the upper classes of the primary school and the first years of secondary. But the strategies explored here would be applicable to all levels. In this book one would find:

- Annotated lesson plans for differentiated units in social studies, language arts, science, mathematics, and world/foreign language.
- Samples of differentiated worksheets, product assignments, rubrics, and homework handouts.
- An overview of the essential elements of differentiated instruction and guidelines for using the book as a learning tool.
- An extended glossary and recommended readings for further exploration of key ideas and strategies.

Gregory, Gayle H. and Chapman, Carolyn (2002). *Differentiated Instructional Strategies: One Size doesn't Fit All*. Corwin Press, Inc. Thousand Oaks, California.

A book full of ideas on the following aspects of differentiated learning:

- Creating a climate for learning
- Getting to know the learner
- Assessing the Learner
- Ideas for adjusting, compacting the curriculum for advanced learners and grouping
- Other instructional strategies and approaches to the curriculum

Heacox, Diane (2002). *Differentiating Instruction in the Regular Classroom: How to Reach and Teach All Learners, Grades 3-12*. Free Spirit Publishing, Minneapolis. USA.

This book presents a menu of strategies any teacher can use to reach and teach all learners. It explores ideas and strategies to help teachers

- Develop challenging and engaging tasks for every learner
- How to provide flexible instructional grouping
- How to create tiered assignments- the instructional component of flexible grouping
- How to grade differentiated tasks fairly
- How to manage your classroom when students are doing different things at different times
- How to differentiate for special populations, including gifted and talented students and those with special needs.
- How to meet curriculum standards and requirements for every learner and much more.

Witherell, Nancy L. and McMackin, Mary C. (2002) *Graphic Organizers and Activities for Differentiated Instruction in Reading*. Scholastic Professional Books.

This book has over 50 great graphic organizers and activity sheets for differentiating reading instruction . Each skill lesson is paired with three student pages designed to support individual learning needs at three levels: Introductory, intermediate, and challenging. Lessons target critical reading skills including making predictions, identifying main ideas, using context cues, analysing cause and effect, and more.

Developmental Studies Center (1998). *Blueprints for a Collaborative Classroom* (2nd Edition). Oakland, CA.

A collection of more than 250 concrete activities suggestion to help the teacher to create a collaborative classroom. For each strategy the book gives a short description on what it is and then suggests why , when and how to use the particular strategy. It also suggests adaptations of the strategy for younger and older students. It discusses grouping considerations and what needs to be done to get students ready to use a particular strategy. Another section is ways to use… here suggestions are offered to indicate possible uses of the particular strategy. Some of the strategies found in this book are: brainstorming, interviewing, sorting and classifying, messing about, problem solving, playing games, dance and movement, editing, readers theatre, and more.

Johnston, Christine (2000). *A Personal Guide to the Implementation of the Let Me Learn Process* (2nd Edition). Let Me Learn Inc. NJ.

This handbook is full of ideas generated by practitioners in implementing the let me learn process effectively in classrooms. These activities include intentional teaching, intentional learning, and metacognitive practice. Here you would find ideas for varying your lesson plans to accommodate different learning pattern preferences.

Strickland, Kathleen and Strickland, James (2000) *Making Assessment Elementary*. Heinemann, Portsmouth, NH.

A book filled with classroom suggestions and reproducible forms that can be used to help you keep assessments authentic and meaningful. The accompanying CD-ROM features all of these classroom assessment forms as well as numerous variations for different grade levels.

Tomlinson, Carol Ann (1999). *The Differentiated Classroom: Responding to the Needs of All Learners*. ASCD. VA.

Tomlinson draws on her experience and of many teachers to describe ways

of going about differentiating the curriculum. These pages are full of real-life examples of teachers and students using-and benefiting from-differentiated instruction.

Marzano, Robert J., Pickering, Debra J., and Pollock, Jane E. (2001) *Classroom Instruction that Works: Research-Based Strategies for Increasing Student Achievement*. ASCD. VA.

In this book you find many researched strategies that have positive effects on student learning. The book is divided into nine broad teaching strategies:

- Identifying similarities and differences
- Summarizing and note taking
- Reinforcing effort and providing recognition
- Homework and practice
- Non-linguistic representations
- Cooperative learning
- Setting objectives and providing feedback
- Generating and testing hypotheses
- Questions, cues, and advance organizers.

Calleja, Colin (Ed) (2003 2nd Edition). *Planning Kit: Teaching Resources for the Primary*. Department of Primary Education, Faculty of Education, University of Malta.

This CD-ROM which was developed for student-teachers provides those who take teaching seriously with lesson plan templates, schemes of work templates and good samples for each subject area taught in the Primary Curriculum, a set of Reflective Questions to help the practitioner reflect on his/her practice and finally an electronic Learner Progress Profile.

SAMPLE PLANS FOR ENGLISH AND HISTORY

ENGLISH LESSON PLAN

ADJECTIVES

Class: Year 4

THEME: THE COLOURS OF NATURE

Concepts:

- ➢ Describing objects
- ➢ Describing people
- ➢ Vocabulary – texture, colour, size, shape and movement.

Skills:

- ❑ Experiencing and describing the environment.
- ❑ Using the five senses to describe objects from the outside world.
- ❑ Comprehension of text materials.
- ❑ Sentence painting.
- ❑ Reading given texts.
- ❑ Creative writing.

Prerequisites:

- ➢ The learners should already know vocabulary related to colours and shapes.
- ➢ The learners should already know some basic vocabulary especially nouns.

DAY 1:

Objectives:

a. Experience nature.
b. Orally practice vocabulary related to the countryside.
c. Orally describe nouns from the outside world using adjectives describing colour, sound, shape, size, movement and texture.
d. Collect objects from the outside world.
e. Capture the outside world using diverse media.

Pre-requisites:

a. The students are prepared beforehand for an outing in the countryside.
b. They are asked to bring colours and drawing book.
c. The teacher brings a digital camera and/or a video camera.

The pattern which is naturally embedded in this lesson is Precision. However, along the course of the lesson, the other learning patterns will be catered for.

By experiencing the environment, the students will get the relevance of the subject. This will benefit mostly students with a high Technical score, but all students will gain from it.

Using the five senses also helps to make the subject more practical. Students with a high Confluence will enjoy the creative writing as long as the teacher allows them the space they need to be creative. Creativity can also be displayed during the various activities to be carried out in the course of the lesson.

The writing is only introduced at a later stage during the lesson.

It is important for the students to see the relevance of adjectives by looking at objects from real life, from the outside world. In this particular lesson, the theme chosen has been nature, but the lesson can be adapted to any other theme.

Step 2
The teacher can prepare questions beforehand which include the adjectives that the students need to learn.

Step 5
The teacher collects things to use later in classroom activities, since these will certainly be helpful for students who need to see tangible objects to describe. This will help to keep the relevance in the classroom.

Step 7
Some students may wish to bring their own camera from home.

Step 1: The teacher organises an outing for the students to the countryside, a nearby park, a public garden or a valley.

Step 2: The teacher gives some time for the students to have a look around and then they all sit in a circle. The students take turns to say what they can see.

Example: the sky, the soil, a tree, an ant or a snail, a stone.

The teacher asks questions that describe the nouns in terms of size, shape colour and movement.

Example:

What colour is the sky? Is it cloudy or sunny today?
What colour is the soil? Is it dry or is it wet?
What colour is the tree trunk? Is it straight or crooked? Is it big or small?
How is the ant/snail moving? Fast or slowly? What shape is the stone? Is it round?
Is the grass long or short?

Step 3: The students are then asked to close their eyes and say what they can hear.

Example: birds, wind, bees.

The teacher asks questions that describe the sounds.

Example: Is the chirping of the bird loud or soft?

Step 4: The students are then asked to touch different objects and say what they can feel.

Example: stones, grass, flowers.

The teacher asks questions regarding texture and feel.

Example:

Are the stones hard or soft? Rough or smooth?
Is the grass wet or dry? Cold or warm?
Is the tree trunk rough or smooth?

Step 5: The students/teacher collect/s some objects like grass, small stones, leaves, some soil, sticks etc… and put/s them in separate bags.

Step 6: The students are asked to draw a picture of what they can see with their colours.

Step 7: The teacher can take pictures of and /or film the surroundings, which he/she will later use with the students in class.

DAY 2:

Objectives:

a. Writing down vocabulary in a list.
b. Writing adjectives in phrases and sentences, using diverse
c. sentence structures.
d. Making a collage representing a scene from the countryside.
e. Creative writing.

Students work in groups and have to complete four activities. The activities need to build up gradually, thus, they cannot be carried out simultaneously, with groups carrying out different activities at the same time.

Activity 1:

Dominant Patterns: Sequence and Precision

Resources:

- ❑ Pictures of the students which they painted on the previous day.
- ❑ Pictures taken by the teacher.

Step 1: The teacher asks the students to look at the pictures which they themselves have drawn and the photos that he/she has taken and make a list of all the things they can see.

Example: Soil
Grass
Clouds

Activity 2:

(a) Dominant pattern: Precision

Resources:

- ❑ Video

Step 2: The teacher asks the students to watch the video. Students are encouraged to pay attention to details and use their imagination to help them. They are then asked to write words, which describe the objects on their list.

Example: Brown soil
Wet grass
Small clouds

The writing of the previous day's experience will start taking place gradually. Students who have low precision and high sequence will benefit mostly from this step-by-step approach.

Students need to work in groups. It is important that all patterns used at first level are represented in each group if possible.

The teacher needs to discuss each activity with the students regarding the patterns involved in each activity.

Depending on the students' knowledge of LML and their level of metacognition, students can either work on a task which is congruent with their patterns, or they can work on a task in which they need to stretch a pattern. Ideally, this should be discussed and negotiated with the students.

It is recommended that students use their strategy cards in these activities, especially when they are dealing with a pattern which they need to stretch or tether. The learning strategies should be discussed between the teacher and the students.

During these activities, it is important to give more instructions to students with high sequence. However, give only basic instructions for students with high technical and high confluent patterns.

It is also important to give some space to students with high confluence, especially in activities in which they can use their creativity. The teacher may wish to allow them to start working on an idea and ask questions later as they go along.

Activity 4

This is a creative writing activity in which the students need to empathise, thus, students with high confluence should be allowed to use their creativity as long as they still use the adjectives required.

Activity 3:

(b) Dominant Pattern: Technical, Confluence and Precision

Resources:

- ❑ The bags with objects collected on the previous day.
- ❑ Glue
- ❑ Scissors
- ❑ Chart

Step 3: Each group is given a bag with objects collected on the previous day. Students are asked to look at and touch the contents. Then students can add some more describing words to their list.

Step 4: Each group is then given a chart, some glue and a pair of scissors. They are asked to use the tools given to make a collage picture with the objects provided. They can also draw on the chart to make their picture complete.

Step 5: Students are asked to look at the teacher's list of words and rewrite the sentences like this:

Example:
The soil is brown.
The grass is wet.
The clouds are small

Activity 4:

(c) Dominant Pattern: Confluence and Precision

Teacher gives a different situation to each group:

Situation A: Close your eyes. Imagine you are a small bird flying in the countryside. What do you see? Hear? Feel? Write 10 sentences. Use the collage you have made and the sentences you have written to help you. Remember to use describing words.

Situation B: Close your eyes. Imagine you are a tiny ant crawling in the countryside. What do you see? Hear? Feel? Write 10 sentences. Use the collage you have made and the sentences you have written to help you.

Remember to use describing words.

Situation C: Close your eyes. Imagine you are an old tree in the countryside. What do you see? Hear? Feel? Write 10

sentences. Use the collage you have made and the sentences you have written to help you. Remember to use describing words.

Situation D: Close your eyes. Imagine you are a small stone lying on the ground in the countryside. What do you see? Hear? Feel? Write 10 sentences. Use the collage you have made and the sentences you have written to help you. Remember to use describing words.

Each group is allowed some time to show the collage to the rest of the class and to read the sentences they have written.

DAY 3:

Objectives:

a. Eliciting of grammar rule – sentence structure using adjectives.
b. Practice – using adjectives.

Step 1

Mind map:

The whole class draws a mind map together with the teacher so students can refresh what they have learnt about describing words. During this activity, the teacher can assess what the students know and don't know so he/she can then consolidate during the following activities.

Students who avoid confluence may use the pictures, photos, videos and most of all the real life experience to help them come up with ideas.

Students with low precision may need to use the words listed and the sentences written in the previous activities in order to help them come up with complete sentences.

It is of utmost importance that when the teacher assesses the above activities, he/she doesn't assess only the written work, but also the hands-on tasks, the creativity level used and/or any other effort needed in order to complete the activity.

Grammar point

It is suggested that the teacher elicits the grammar rule from the students rather than explaining it to them. This may be easier for them if they look at the activities which they have just carried out. This may also be presented in a problem-solving manner or embedded within another activity.

The grammar point should be easily understood by students with high sequence and precision. The teacher has to pay particular attention to students with low precision, perhaps using pictures together with the words. Teacher also has to pay attention to students with high technical and confluence who might be distracted during this stage. It would be a good idea for the teacher to call on the students often to see that they are following. It is also suggested that real life examples, and examples placed in a context, are given to the students.

Grammar point

The teacher explains to the students that we use describing words to make our sentences more beautiful and enjoyable to read. Teacher explains that these describing words are called **adjectives**. The teacher tries to elicit from the students the function of adjectives (i.e. that they are used to describe nouns).

The teacher asks the students to highlight the adjectives they have written on the list in activity 2, the adjectives in the sentences they have written in activity 3 and the adjectives in the sentences in activity 4. Then the teacher elicits that sometimes the adjectives come immediately before the noun:

Example: a **green** leaf, wet grass.

and sometimes after a verb:
Example: The leaf is **green**.
The grass is **wet**.

The teacher can use flashcards with pictures to show to the students.

Practice

Once the learning has been accomplished, practice can take several forms that the teacher and the students desire. The students should now feel that they have made the learning experience their own, so they should feel more willing to go through the practice and assessment stages.

One example is for the teacher and/or the students to prepare flashcards depicting different objects, or get some real objects from home. The teacher then asks questions (or the students ask each other) questions regarding colour, size, texture, shape etc. During this exercise, the students can practice different structures in which adjectives can be used.

The same concept can also be explained through poetry. For example, the teacher can choose a poem in which several adjectives are present and create activities by using the poem. One example is to give the poem with missing adjectives to the students and let them try to come up with different adjectives themselves. The teacher can help the students by giving them flashcards which can be used instead of/together with the adjectives. One poem which lends itself to such practice is **Found in a pocket**, by Virginia S. Brown:

A knotted string
A paper ring
Some pennies bright and new.

A crusty rock,
A tiny lock.
Some buttons faded blue.

A broken bead,
A pumpkin seed,
Some bubble gum to chew.

A rubber band,
A pinch of sand
All in my pocket, too.

Virginia S. Brown

Another possibility is to practice adjectives through prose. **The Mixed-Up Chameleon**, by **Eric Carle** is one example which exposes the students to several adjectives. The following is one idea for using **The Mixed-Up Chameleon** in the classroom:

After reading the book, students can create their own mixed-upchameleon or any other animal by using various types of papers having different colours, textures, patterns etc. Students can use different papers ranging from tissue paper to foil paper and papers with different textures and thicknesses. The textures and combinations of paper allow the students to be more creative. Students are then asked to write a description of their animal, including adjectives in their description of each different body part.

*The activity of **The Mixed-Up Chameleon** caters for students with different learning patterns. The teacher could also use this activity, or a similar one during the 'learning stage' of the lesson.*

Home activity:

Home activities are not specified in the course of the lesson, however, the teacher can assign various home activities as he/she deems fit throughout the course of the topic.

One example for a home activity is for the students to find a number of different objects from around the house or which they can collect from outside and/or draw pictures. The students then write a number of sentences about the objects collected, or pictures drawn using adjectives to describe them.

Subject: Maltese History (Social Studies)
Class: Year 5
Topic from Syllabus: ***The feudal era and the Monroy uprising***

Topic Objectives: By the end of the topic the students would have:

Historical Skills:
- used different historical sources (p/t/k)
- Empathized with persons who lived in the feudal era (k)
- Observed historical contexts and annotated them (p)

Concepts:
- explored the feudal system (p)
- Built a picture of what Malta looked like in the 13th century (s/t/k)
- Discussed different roles people had in society (p/k)
- Experienced a living environment (t)
- Explored the Monroy events (p)

Initiating this topic with an outing seems to be a very effective way in which to tackle the technical pattern in a subject which is predominantly precise. All students would have an experience in common to which they can relate throughout the topic.

At some point during the topic presentation, the general aims are to be discussed with the students and which patterns would be used more than others.

DAY 1 - INTRODUCTION

- ***Observe contexts and annotate observation (t/p)***
- ***Experience different historical primary sources(t)***

An Observation Experience
An outing to the historical core of our/nearby village/city

City (Mdina, Valletta, Birgu)

- Noble palaces
- Bastions
- Peasants' house
- sea or land?

} What to observe…

Old villages
- Organisation of fields
- Visit an old village house: how did the peasants live?
- Any particular village character

} What to observe…

Particular tools:
A digital camera to shoot particular scenes. A handout would guide and structure the thoughts of the students.

DAY 2

- ***Connect with observation experience (t/c)***
- ***research the feudal system from a 'familiar' perspective (t)***
- ***use their experiences and text books as sources of information (t/p)***

Activity
Working in groups of four
Students go through historical books (Denfil, Leġġendi Maltin, etc) to identify people who featured prominently in the daily lives/thoughts of the Maltese: Who were they? How were they called?

Identify the titles of people who ruled the Maltese in the past
e.g Count Roger (konti (count), sultan/re (king), nobbli (noble), sid fewdatarju (feudal lord)

Exploring the research
List on Whiteboard of names, titles and flags (optional)
Why were there different titles? What would have been different if you were a king and not (say) a count? Who was the most powerful? Where did they reside? Who were their subjects?

(THINK - PAIR – SQUARE) exploring their ideas from their experiences and available books

At this point the answers are discussed on a classroom level. The teacher at this point guides the discussion with historical information, and the digital images shot during the outing. This leads to the first steps to the building and the understanding of the feudal pyramid: king – nobles – peasants (ref. figure 1)

Homework
Volunteers – at home they prepare an extract from the historical novel *Żmien l-Ispanjoli* by GuΩe Galea (pg 3 – 5; and 5 – 7) others would take care of finding pictures of castles, knights, peasants, etc to set the scene. These would be guided by sample pictures (fig. 2). Others might opt to build the feudal pyramid in 3-D.

DAY 3/4

- ***Empathise with common people living in feudal times (c)***
- ***Elaborate on their initial fantastic picture of feudalism (c/p)***
- ***Discuss the role of different social 'classes' (p)***

Introduction

The prepared extracts are read out in class
The prepared artefacts are presented and put in context

Students watch part of the film ***Lord of the Rings: The Two Towers*** depicting a fortified town and link it with previous history topic on cities.

The research of the subject, usually an exercise requiring precision, is tackled from the familiar to the unknown direction. This allows some space for the learners to connect with the subject through creativity.

The group work has to be very well organized and the students ought to be familiar with skills that would help them work well within the group. Ideally the groups would be made up of students with different learning combinations. Also they should be aware of each others' learning patterns.

In this case, the objective i.e. familiarization may be tackled in different ways: thus different tasks can be offered.

This activity is meant to develop the meaning of empathy through play. Empathy is predominantly a confluent activity and thus, learners who avoid confluence might find it difficult to connect with these bygone characters. Models/Soft Toys might help to bridge the gap.

The groups might facilitate this process, nevertheless the learners should be made aware that this activity primarily requires the use of confluence.

Mini-lesson shouldn't last more than 10-12 minutes. The students should be aware of the precise nature of the contents of this lesson.

Activity (Think – Square)

The class is divided in reigns made up of four students. Every student is assigned a character from the historical novel (Żmien l-Ispanjoli) and/or the film – much better if these characters are not just names but they would be represented by soft toys and/or models. Everyone has to empathize with the assigned character and answer particular key questions: Where does s/he come from? What does he like/dislike? What is it like to be him? Then they discuss the character with the group.

Example: noble, soldier, common man/woman, priest (every character should be represented in the reign – refer to Fig. 3)

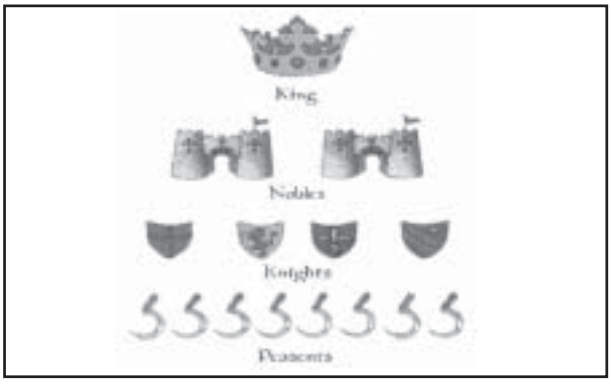
Every reign has to choose a name and create an official *coat of arms* with the help of a template (Fig. 4)

Other Key Questions:

What do I do in everyday life?
What is the most important aim in my life?

Whole Class: the teacher facilitates the discussion
Every group would represent a daily life picture of their reign. At this point fantastic pictures should be accepted and encouraged. It's important that every student would know how s/he conceived that idea…

Lesson
The teacher selects particular highlights from the group's presentation and tries to supplement them with historical facts (with reference to the feudal pyramid). The concept that has to be explored here is 'where were the Maltese common people': how could they obtain self-administration? What were their rights?



Conclusion
Drawing up a chart with these points:

What I know | What I would like to know | What I need to know
With reference to materials made up by the students.

Homework
Volunteers would look up information on the internet:

http://www.learner.org/exhibits/middleages/feudal.html
http://www.mnsu.edu/emuseum/history/middleages/contents.html

and collect presentable materials.

All students go through the Monroy experience from textbook.

DAY 5

- ***Have a holistic picture of feudal Malta (c)***
- ***Put the Cardona-Monroy happenings in this context (s/p/c)***

The teacher helps the students to gather and organize according to the feudal pyramid (social classes) the different sources they worked on during the mentioned four days:

- The **What I know | What I would like to know | What I need to know** chart
- Books and other sources 'Ġrajjiet Malta (?)', 'Żmien l-Ispanjoli', Lord of the Rings film, photos from outing
- Research from internet sites
- Models and context pictures
- Artefacts from the 'reigns'

The students evaluate the best historical sources as well as the contextual picture they are now seeing.

A 20 minute lesson: 'Understanding the event'

Recounting of the Monroy uprising. A handout with key information to be given to students (chronological event). This event is to be discussed in terms of the context set up above and explored through key questions:

Key Questions:
In the feudal pyramid model, where were Monroy and the Maltese people? What could they aspire for from there? Who was the king?
Do you think Cardona and Monroy behaved like they did because they were evil?

The setting up and the perception of the whole context requires confluence. The building up of the context sequentially (s) and with familiar artifacts (t) helps students with different learning combinations to cope with this exercise.

The Monroy mini-lesson is highly sequential and precise and thus any presentation of the events has to be tied with the whole topic experience.

The assessment is to be made up of the products of the different activities (classwork and volunteer home activities). In this case the various assessment tasks target all different learning patterns.

Assessment

- Organisation and the inclusion of further illustrations of notes, handouts and other materials.
- Volunteering to contribute materials and research along the five days.
- Publishing of an artefact/writing supplied with a few points on what this meant to them as an experience.

Fig. 1

Fig. 2

Fig. 3

Nobbli

Suldat

Qassis

Bidwi

Fig. 4

CHECKLIST

INSTRUCTIONAL ALTERNATIVES

Instructional Alternatives					
Academic games					
Brainstorming					
Benefits and Burdens					
Cartoons, drawings and collages					
Compacting					
Computer-assisted instruction					
Cooperative learning					
Dance and movement					
Debates					
Demonstrations					
Direct instruction					
Discovery learning					
Discussion					
Drill and practice					
Editing					
Field trips					
Flow charts					
Games					
Graphic Arts					
Independent study					
Individualized instruction					
Interest Centres					
Interviewing					
Interviewing a guest					
Investigating					
Learning circle					
Learning contracts					
Manipulative games					
Model building					
Oral reports					
Partner Reading					
Peer tutoring					
Presentations by the teacher					

Problem solving					
Project work					
Questioning					
Readers' Theatre					
Rehearsing					
Reporting back circle					
Reviewing circle					
Role playing					
Simulation games					
Singing					
Stations					
Sorting and Classifying					
Venn diagrams					
Writing Poetry					
Writing Narrative					
Writing Expository					

checklist: Instructional Alternatives

ABOUT THIS BOOK

The author has undertaken an extensive and thorough review of the international literature on metacognitive processes enabling individual students to acquire knowledge of their mental processes and use it during the learning process. He also underlines the drawbacks of traditional approaches to learning and emphasizes on recent trends and developments in the field.

The presentation of the content has been excellently organized and presented in a way that is clearly understood by academics, teachers already in service and student teachers.

Dr Eleni Didaskalou
Lecturer in Special-Inclusive Education in the Department of Special Education, University of Thessaly

The references to the literature on teaching, learning, and differentiation are extensive and very current. Having had one other researcher and one practitioner review this manuscript, we were all in agreement that it provides a thorough review of the literature including its richest and deepest threads.

This manuscript is user friendly. It provides all of the bells and whistles that educators appreciate as they venture into developing their skills and developing their knowledge base. There is nothing threatening or unforeseen. Instead the manuscript leads the reader very skillfully and subtlety into a new awareness of differentiation and its powerful impact within the classroom.

Professor Christine Johnston
Director of the Centre for The Advancement of Learning
Rowan University

The author has undertaken an extensive and thorough review of the international literature on the area of individual students' awareness of their mental processes and the ways that such processes can be incorporated as a part of the teaching process.

It is clearly and precisely presented and organized, attracting the reader's interest and motivation in engaging with the content of the publication.

Professor Anastasia Vlachou
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