# COLAISTE NAISIUNTA EALAINE IS DEARTHA NATIONAL COLLEGE OF ART AND DESIGN FACULTY OF EDUCATION

## B.A. DEGREE IN ART AND DESIGN EDUCATION

### **DISSERTATION ABSTRACT**

## STUDENT: KATHRYN MC FADDEN

## TITLE: 'THE PROMOTION OF CREATIVITY IN THE ART ROOM'

### **DESCRIPTION:**

To promote student's creativity has to be one of the core objectives of art education, therefore it is all the more surprising that creativity can be neglected in main stream art. Narrow definitions of creativity exist that focus on the finished product rather than on the creative process. This dissertation explores definitions of creativity and its place in art education. I aim to examine our ability as art educators to promote our student's creative potential and in turn the effect this has on the quality of life of the individual.

#FM0054418NC

NC 0021150 8

# COLAISTE NAISIUNTA EALAINE IS DEARTHA NATIONAL COLLEGE OF ART AND DESIGN FACULTY OF EDUCATION

'THE PROMOTION OF CREATIVITY IN THE ART ROOM'

# A DISSERTATION SUBMITTED TO THE FACULTY OF EDUCATION IN CANDIDACY FOR THE B.A. DEGREE IN ART AND DESIGN EDUCATION

ΒY

KATHRYN MC FADDEN

**JUNE 1998** 



# TABLE OF CONTENTS

ACKNOWLEDGEMENTS	(i)
LIST OF ILLUSTRATIONS	(ii)
INTRODUCTION	(iii)
CHAPTER 1 DEFINING CREATIVITY	1
Defining creativity	
Lateral & Divergent thinking	
Implications for the individual	
Implications for society as a whole	
CHAPTER 2 JUNIOR CERTIFICATE CURRICULUM	7
Creativity in the Junior Certificate Curriculum	
CHAPTER 3 METHODS FOR PROMOTING CREATIVITY	12
Facilitators of creativity	
Promoting creativity in the art room	
CHAPTER 4 PRESENTATION OF SCHEME OF WORK	21
School profile	
Reasons for choice of scheme	
Scheme description	
Methodology	
Assessment of scheme	
CONCLUSION	48
APPENDIX	50
FOOTNOTES	51
BIBLIOGRAPHY	53

### REMEMBER OF STREET

tions of the second of the s A second of the second of the

## ACKNOWLEDGEMENTS

Throughout the whole process of this dissertation I received much guidance help and support. I would like to thank Professor Iseult McCarthy and my tutor Eileen Doyle, for their time, direction and confidence.

I would like to thank my parents, my friends especially Fergal, without their unending help, patience and support I would be lost.

#### : '자희 성영 화장 것 것 것 같아! 아파 ^ \_ \_

and the state of the second state of the second state of the second second second second second second second s

## LIST OF ILLUSTRATIONS

	Page
Figure 1. Student brainstorming exercise	25
Figure 2. Students recording individual features	26
Figure 3. Support study - Rachel Howis	27
Figure 4. Student study recording the planes of the face	29
Figure 5. Student study recording the tones of the face	30
Figure 6. Visual aid - my own self portrait	31
Figure 7. Students' loose charcoal portrait drawings	33
Figure 8. Support study - Maggi Hambling	34
Figure 9. Students observational line drawings of thematic objects	s 35
Figure 10. Students' view found areas from observational drawings	s 36
Figure 11. Support study - Freda Kahlo	37
Figure 12. Students' thumbnail designs for self-portrait	39
Figure 13. Students painting the backdrop of their portraits	40
Figure 14. Students' completed self-portraits	42
Figure 15 Support study - Tom Philips	43

#### 승규는 배가 전하지 않는 데 집에 집에 있는

े छन्

### INTRODUCTION

The capacity to develop student's creative potential, to broaden their perception and appreciation of themselves and their environment and simply to compel students to think, is the fundamental aim of art education. It is therefore all the more surprising that creativity is generally neglected in main stream art education. Narrow definitions of creativity exist that focus primarily on the finished product rather than on the creative process.

This dissertation explores definitions of creativity and its place in art education. It addresses the effect that creativity has on the quality of life of the individual and later on society as a whole. Essentially the dissertation examines our ability as art educators to develop creative potential within our students.

In chapter 1 definitions of creativity are addressed, exploring the involvement of lateral and divergent thinking. This chapter also deals with the effects creativity has on the life of the individual and in turn society as a whole. Chapter 2 addresses creativity within the Junior Curriculum. The qualities of good facilitators of creativity are discussed in chapter 3 along with methods of promoting creativity in the art room and suggestions for its measurement. The final chapter describes how the above theory was applied to the classroom. It includes a description of a 5th year scheme of work, employing the promotional methods of creativity discussed in chapter 3. This chapter also gives a detailed assessment of the scheme including the results from a creativity test.



The onus for the development of creativity naturally falls on the art teacher, therefore it is necessary that we are equipped for this challenge. Through the exploration of this dissertation topic, I hope to get a greater insight into how creativity can be nurtured and promoted.



### CHAPTER 1

### DEFINING CREATIVITY

While definitions of creativity vary, it is possible to establish as a common denominator, the idea that the development of creative thinking is very important for individuals and society.

Creativity is a familiar yet oddly elusive concept. Most of us are capable of advancing an acceptable definition. Indeed the term creativity may have become too familiar in everyday usage. It is used as a universal modifier, 'creative financing', 'creative cookery', 'new and improved' products. Often the definition of creativity is too narrow, focusing on the product rather than on the process, thus limiting the understanding of creativity as an essential part of education as inherent in the teaching of maths and science as it is in art and drama. Traditional perceptions present creativity as a rare gift. In this dissertation I will pose and evaluate the question whether it is a rare gift or a rare opportunity to be creative.

Fontana discusses creativity in terms of a "special kind of thinking that involves originality and fluency, that breaks away from existing patterns and introduces something new".<sup>1</sup> Lowenfeld sees creativity as being, "constructive, productive behaviour that can be seen in action or accomplishment, it does not have to be a unique phenomenon in the world, but it does have to be basically a contribution from the individual".<sup>2</sup> From reading these two definitions Fontana and Lowenfeld, in their definitions of creativity, seem to be leaning more towards an assessment of the individual's contribution during the creative process rather than the end product. Issues such as original and fluent thinking and constructive productive behaviour come into play.

The teachers who took part in the interview study, Project 1000 (Fryer



1996), were asked for their spontaneous definitions of creativity.

"Creativity is being original, being able to take an idea forward and develop it in your own way" said one primary teacher.<sup>3</sup> A lecturer in electronics believes that "Creativity is what one person produces and is interested in. Anyone can be creative, but not everyone is." <sup>4</sup> One primary school head saw "Creativity as the ability to look at things in a different way, to find satisfaction in making or creating something and persevering with it until the end product. It involves hard work, it's not airy-fairy." <sup>5</sup> These definitions reinforce Lowenfeld's and Fontana's views of creativity, focusing on the creative act or process rather than on the created product. One concludes from reading these definitions that there is the possibility of promoting or enhancing creative growth in a student, "anyone can be creative but not everyone is".<sup>6</sup>

The promotion of creative growth in students raises such problematic issues as how original does something have to be to be regarded as creative? Does there have to be an end product or does an idea count as creative? What kind of environments are most suitable for the development of creativity? Holloway describes the concept as 'fuzzy' because not all of the distinguishing features above are evident in every instance. He believes that when discussing creativity it is possible to focus on either the person creating, the created product or idea, the process of being creative or the environment in which this occurs. However Rogers argues that it would be artificial to envisage any of the four categories, person, product, process or environment as independent of the rest, he defines the creative process as:

"The emergence in action of a novel relational product, growing out of the uniqueness of the individual on the one hand and the materials, events, people or circumstances of his life on the other."<sup>7</sup> From reading this definition, one concludes that it is important when defining creativity,

to take all factors into consideration. One must not focus solely on the creative process or the finished product. It is important to look at the overall picture, taking factors such as the contribution of the individual during the creative process, the thinking pattern of the individual while planning and creating, the end product and the environment in which the creative process has taken place.

Creativity is often regarded as a difficult concept to handle or define. A common way of making creativity a more manageable concept to deal with is to focus on the person, on the creative process, on the product, or on the environment or any combination of these. In chapter 3 I will explore these factors in detail as a means of further understanding the concept of creativity and methods of its promotion.

### LATERAL AND DIVERGENT THINKING:

What is clear from the definitions already cited, is that creativity must involve a different form of thinking. Edward de Bono sees this different form of thinking as lateral thinking. Lateral thinking involves the ability to generate a range of possible solutions to a given problem to which there is no single right answer. This type of thinking is contrasted with vertical thinking, where a single acceptable answer is seen for the problem. De Bono argues that both vertical and lateral thinking have their places in education, but that all too often people tend to use the first where the second is more appropriate. De Bono believes that educators should encourage children to see that at the point where a sequence of vertical thinking breaks down, they need to employ lateral thinking, and to consider different possible solutions to the given problem rather than focussing on a single answer:



"Lateral thinking therefore allows the juxtaposition of ideas which have no apparent logical or sequential connection. Such juxtaposition does not necessarily make sense in itself at first sight, but it triggers off something else that will do so."<sup>8</sup>

According to Guilford this different mode of thinking could be described as "Divergent thinking" <sup>9</sup> This form of thinking stands in direct contrast to Convergent thinking, where a single acceptable answer is seen for the problem or question. Divergent thinking according to Guilford is the ability to generate a range of possible solutions to a given problem. To fully understand what Guilford means by divergent thinking he breaks this way of thinking into the following headings, word fluency, ideational fluency, adaptive flexibility and originality. Word fluency concentrates on how facile one is with words, for example ask a student to name as many words as possible that contain the letter z. Ideational fluency require students to name words for example that belong to a particular class. One could ask students to name as many objects as they can that weigh less than one pound. Adaptive flexibility requires the student to vary their ideas widely when it is called for. Originality requires the student to be unique in their thinking, for example asking the student to name some unique ways to use an object.

Considering the definitions of creativity, one concludes that creativity involves numerous factors. When defining creativity one must consider the contribution of the individual during the creative process, the mode of thinking of the individual while creating, that is divergent and lateral thinking, the end product and the environment in which this is all achieved. It is important to understand all the different facets of creativity in order to know what to look out for and promote in the art room.

### **INDIVIDUAL QUALITY OF LIFE:**

The development of creativity can have a major influence on the quality of life of the individual. Fryer reminds us that the ability to be creative in an artistic sense can also be a source of personal satisfaction. Artistic creativity can have therapeutic effects for the student, particularly for those with low self esteem :

"being in touch with ones creativity is important for mental health. Being able to be creative does create peace and I think there is nothing better at the end of the day than feeling that you have achieved something. Students sometimes say they feel they have done something good and it has an important effect on them as people. (FE art and design lecturer working with young people of low self esteem )".<sup>10</sup> The promotion of creativity should be seen as a means of helping everyone, regardless of their speciality, to develop their creative thinking skills. Creative teaching gives the opportunity for learning to be exciting and challenging. Students who enjoy learning are more likely to be effective learners, so teaching also becomes more rewarding. Encouraging a child to employ divergent and lateral thinking is equipping this child with creative and innovative skills to tackle real life problems.

# THE PROMOTION OF CREATIVITY AND ITS EFFECT ON SOCIETY AS A WHOLE:

The capacity to be creative is largely linked up with what it means to be human. Creativity affects personal well being and quality of life. It affects how people cope with the quickening pace of society. People will need to be both flexible and resourceful to adjust to the "*rapid multidimensional transformation of social, political, economic, demographic and cultural* 



*aspects of life*."<sup>11</sup> At the 1993 Presidents Convocation of the Creative Education Foundation, U.S.A., Dr. Iraj Ayman stressed that "*the key role that education has to play is enabling young people to deal with this transformation effectively and in ethnically sound ways*".<sup>12</sup> As life becomes more complex one must become skilled in recognising alternative courses of action. Training in creative problem solving that encourages the practice of lateral and divergent thinking will foster and promote the skills of flexibility and ingenuity. This training can enrich the individual in other ways. It can help the person to see things from differing perspectives :

"The ability to appreciate other peoples points of view is especially valuable in times of social upheaval, (Ayman 1993)".<sup>13</sup> Those educators who regard the development of creativity as crucially important do so because they realise that ultimately children will have to think for themselves. To cope with the demands of the future, people have to be quick thinking, flexible and imaginative. They will have to be confident in producing solutions to unfamiliar problems in unclear situations.

Educators can offer valuable insights into teaching and learning. They have a major contribution to make to the development of creative skills. Art educators in particular can play a vital role in developing student's divergent and lateral thinking. The challenge is to future art teachers to discover and foster methods to enable students to develop ways of reflection and critical analysis.



### CHAPTER 2

# CREATIVITY IN THE JUNIOR CERTIFICATE CURRICULUM

Before one can look for creativity and its promotion within the Junior Certificate Curriculum, it is first necessary to establish criteria for creativity. Teachers can monitor what their pupils have to say, observe their behaviour, examine the work they produce, give creativity tests or use any combination of these and other approaches. However to get a complete picture of a student's capabilities and creativity, it is also beneficial to assess student's behaviour and work in relation to given criteria.

In a review of publications, Besemer and Treffinger (1981) categorised their criteria for creativity into the three groups of novelty, resolution, elaboration and synthesis. The criteria by which novelty might be assessed are the newness of a product in terms of process, techniques and concepts. Besemer and Treffinger also include criteria relating to a product's capacity to suggest additional creative products. The resolution criterion refers to the extent to which a product fits or meets the need of a problematic situation. The elaboration and synthesis criterion includes criteria such as the attractiveness, complexity, elegance and completeness of the finished work.

While Besemer and Treffinger's review of criteria include important aspects of creativity, such as the newness of a product and its potential to suggest additional products, and the consideration as to whether the product is suitable to the given problem, these criteria, in my opinion

#### 이는 것은 말했는 말 것을 해야 한다.

# PESA BARDA BALTARIA LO RECERLA EN CELEVO ATEN COLEMPTO DE LO RECORDERAN

a da segura da cara da mana da servicia da servicia da servicia da servicia da servicia da segura da servicia d A servicio da servicia da se A servicio da servicia da s negate the creative process and focus primarily on the finished product. When one recalls Fontana's definition which discussed creativity in terms of a "special kind of thinking that involves originality and fluency, that breaks away from existing patterns and introduces something new"<sup>4</sup> along with Lowenfeld's description of creativity as being "constructive, productive behaviour that can be seen in action or accomplishment"<sup>15</sup>, one concludes that creativity is very much about the creative process rather than about the end product. Therefore to establish criteria for creativity it is necessary to focus on the student's contribution through the creative process. One must focus on factors such as the thought process a student uses to arrive at a novel solution. Taking these factors into consideration and referring back to the outlined definitions of Fontana and Lowenfeld discussed in chapter 1, focusing on the created act rather than on the created product, I have arrived my own criteria for creativity, which I will apply to my study of creativity in the Junior Certificate Curriculum. The criteria are, Lateral thinking, Novelty and Appropriateness. The lateral thinking criterion includes evidence of the use of lateral and divergent thinking. Students should show the ability to generate as many possible solutions to a given problem. This criterion also incorporates the progression and resolution of an idea. The novelty criterion relates to the originality or unusualness of student's work. Here evidence is required that an individual student has shown initiative and has fully explored the process of creativity, i.e. idea generation, progression, resolution. This category ensures that a student has ultimately been successful in reaching a novel solution to a given problem. It also relates to the capacity of students finished work to suggest additional creative products.

Under appropriateness students are required to arrive at a unique or original solution to a given problem. However originality alone is not a sufficient criterion. As Best (1982), argues simply being divergent or

different is not necessarily creative, but being divergent or different in a way that is appropriate is more likely to be. Appropriateness is the extent to which a suitable original solution is found to a given problem, however the solution is appropriate to its context.

When studying the Junior Certificate Curriculum I was concerned with the promotion of creativity within the curriculum. To recognise the promotion of creativity I kept in mind my criteria, lateral thinking, novelty and appropriateness. The first aim and principle of the Junior Certificate Curriculum outlines that the general aim of education is to "contribute towards the development of all aspects of the individual, including aesthetic, creative, critical, cultural, emotional, intellectual, moral ..... "<sup>16</sup> As one can see creativity is recognised as an element that contributes to the development of the student as a whole person. The curriculum outlines further aims such as "to prepare the young person for the requirements of further programmes of study, of employment or of life outside full time education" to "prepare the young person for the responsibilities of citizenship in the national context and in the context of the wider European community".<sup>17</sup> These aims require skills in decision making and the ability to display complex modes of thinking. The promotion of creative thinking and the promotion of lateral and divergent thinking should be stressed, therefore fulfilling my criterion of lateral thinking. Creativity is not solely concerned with art the subject, it should be promoted throughout the curriculum. Creative thinking, lateral and divergent thinking, should be included as a specific aim in the curriculum. Within the Art Craft syllabus the curriculum recognises that Art Craft and Design involves a different way of thinking, for example Design "emphasises planning, problem solving and completion, using drawing as a means of thinking",<sup>18</sup> however they neglect to mention that this form of different thinking involves lateral and divergent thinking. This is also



touched upon again under the aims of Art Craft and Design at Junior Cycle. One of the aims outlines "*to promote in the student a practical understanding of and competence in the principles and skills underlying visual and constructional design and problem solving*".<sup>19</sup> Again I feel that the curriculum should have stressed the creative process and creative thinking at this point. The criterion of novelty is portrayed under another aim of Art Craft and Design at Junior Cycle:

"To develop through structural practical work the student's aesthetic sensibilities and powers of critical appraisal, appreciation and evaluation and to enhance the student's qualities of imagination, creativity, originality and ingenuity".<sup>20</sup> The novelty or originality aspect of this aim could have been reinforced further through the inclusion of the promotion of lateral thinking. The promotion of creativity is an essential part in the development of a student as a whole person. It should be classified as a principal aim , under the aims of Art Craft and Design at Junior Cycle.

The criteria of lateral thinking and appropriateness are touched upon under the Design category:

"Students should be taught how to analyse design problems, to plan and research, to use design processes appropriate to the task in hand, to clarify ideas through the use of working drawings, to carry work to completion and to evaluate the finished work".<sup>21</sup>

The inclusion of lateral and divergent thinking would enhance the student's ability to analyse design problems, to plan and to research and to carry work to completion.

In conclusion creativity is inferred in the Junior Certificate Curriculum. However I believe it deserves greater recognition. Fundamentally education is about encouraging students to think. The promotion of creativity and the promotion of lateral thinking is an avenue for achieving this goal. Therefore I believe that creativity should be treated as one of the



prime aims of the Junior Cycle in particular the Art Craft and Design Junior Cycle.


# CHAPTER 3 METHODS OF PROMOTING CREATIVITY

### FACILITATORS OF CREATIVITY:

Teachers have a key role to play in the development of pupil's creativity. In this chapter I aim to discuss the role the educator may play in facilitating a child's creativity, by outlining and evaluating suggested teaching styles that promote creative work. Before discussing these key activities in detail, it is first necessary to identify the qualities and skills which facilitators of creativity need. Parnes 1985, the co-founder of the Creative Education Foundation, outlines skills and qualities pertaining to good teachers. These may be categorised into three main areas, skills which are appropriate to group work, personal qualities which make a good facilitator and cognitive skills which maximise the likelihood of creative outcomes.

The group work skills category involves qualities such as being positive and accepting, respecting everyone's potential for creativity, having the ability to draw out ideas from people and also being tactful. It involves being good at encouraging a productive group being able to recognise and monitor the group's non-verbal signals and managing the process within time constraints while maintaining flexibility within these. A good facilitator must not force their own ideas on the group. I find that the group work skill category outlines essential qualities necessary for teaching. From my experience in teaching practice, the difficulty in monitoring and motivating individual student input in a group situation, became apparent. I identify with the encouraging and positive qualities that Parnes suggests that a teacher should have in order to draw out ideas and responses from a group. The skills of being able to monitor the group's non-verbal signals is particularly relevant. Again from my



experience in teaching it was obvious that students respond in different ways in a group situation, some more vocal than others, therefore a teacher must have the skill of being able to recognise different patterns of response.

Within the personal qualities category, Parnes states that facilitators should be *"sincerely enthusiastic, dedicated, optimistic, flexible and spontaneous"*.<sup>22</sup> They should not take themselves too seriously and avoid putting themselves in the limelight. Through my own experience it became evident that Parnes theory on the personal qualities of a facilitator are essential qualities for a teacher. In order to draw the most creative potential from a student it was necessary to convey a positive and enthusiastic presence. A teacher must be completely dedicated, optimistic and encouraging about a project in order to be successful in terms of student's creativity. If these qualities are lacking in an educator, it is inevitable that the students will pick these negative vibes and in turn give a half hearted and weak performance.

Under the cognitive characteristics category, Parnes stresses that facilitators need to be wide categorisers and open to ideas. They should encourage ambiguity but have the balance necessary to bring a greater order from the disorder of ambiguity and be ready to take calculated risks. I identify with the qualities outlined within this category. Parnes here has portrayed and reinforced my belief in the criteria for creativity, lateral thinking, novelty and appropriateness, previously established in chapter 2. Parnes stresses that facilitators should encourage ambiguity, Parnes here is saying that students should embark on a more divergent and lateral mode of thinking, for example when a student is faced with a given problem, the student should be encouraged to generate as many possible solutions to the problem before progressing to a resolution. In doing this the student will arrive at the most novel solution. Parnes also stresses that



a facilitator should have the skill of drawing order from the disorder of ambiguity. Here my appropriateness criterion for assessing creativity comes into play, I believe that an educator should encourage a student to arrive at the most novel solution to a problem, however the teacher should be skilled in ensuring that the student understands that the solution must be appropriate to the given problem. It is true that a teacher should have the quality of being wide categorisers, open to ideas and ready to take calculated risks. From my experience it is apparent that one needs to be flexible when unplanned situations arise. A teacher should be prepared to listen and learn from a student, have the ability to look at the wider spectrum and be open and welcome to opinions.

These qualities and skills outlined by Parnes are essential characteristics for a teacher. These qualities, group work skills, personal qualities and cognitive skills act as the foundation for the promotion of creativity in the art room. I will discuss the activities and teaching styles that may be used to promote creativity, but before doing this it is beneficial to keep in mind that Parnes outlined qualities and skills are in my opinion essential to put the following activities into play.

### PROMOTING CREATIVITY IN THE ART ROOM:

Creativity in children does not merely happen, teachers have a central role to play in the development of children's creativity. Teachers who took part in Project1000 1989 made interesting analogies between the development of creativity and gardening:

"In teaching, I think you have to sow the seeds and watch them grow. Your give the children as many opportunities as possible to be creative, it takes a stimulating environment, a good teacher, a friendly atmosphere, a chance to mix with peers, to discuss and do things".<sup>23</sup> Another teacher



recognised that creativity does not just happen;

"Children's creativity has to spring from somewhere. You have to till the ground and prepare it."<sup>24</sup> There are many approaches outlined by educationalists for the promotion of creativity in the class room. Various conditions, teaching styles and strategies have been suggested that stimulate or promote more creative thinking. At this point I will discuss these styles and strategies relating to my own personal experience of teaching.

#### ATMOSPHERE AND GOOD ENVIRONMENT:

The first factor to be taken into consideration is the atmosphere or environment of an art room. There are differing views as to whether an informal or formal approach to teaching promotes creativity. Torrance and Myers 1970 regard the idea of an unstructured or laissez - faire approach to teaching as unhelpful in the development of creativity. They argue that much more is needed than a permissive environment. They maintain that teaching creativity "demands commitment and involvement, guidance and direction which is both sensitive and aware, intent listening, protecting pupils against disparagement and ridicule and recognising real effort as sufficiently worthwhile to encourage further effort".<sup>25</sup> There is the argument that children should be allowed to find things out for themselves. A high school drama teacher interviewed in Project 1000 (Fryer1996) recommends that more staff should move away from the "didactic chalk and talk approach".<sup>26</sup> She states that some teachers rely too exclusively on formal teaching. She is not advocating children running riot but rather negotiated learning, where it is not just the teacher who generates ideas. A constrained environment cannot be flexible enough to meet every child's learning needs. On the other side there is the argument that informal teaching might hinder creativity



because it can be lacking in guidance and stimulation.

The teacher should strive for a balance between the two approaches. If one is working towards creativity, organisation is essential. An informal atmosphere both helps and hinders creativity. One needs to find a happy medium. If one gives some freedom and self responsibility to a student you can get a situation where creativity will occur. However it is the teacher's responsibility to monitor this freedom and to prevent things from getting out of hand. If the group is totally free, some members will dominate others and prevent them expressing their view point. Presently I am teaching in Our Lady of Mercy Convent Beaumont and with a 5th year project, a project that I will outline in detail in chapter 4, I have put this balance of informal and formal teaching into practice. Throughout the project I have encouraged the students to express their view points and ideas together in a group situation and to participate in group evaluations.

#### <u>SETTING INTERESTING TASKS:</u>

"Teachers can act as catalysts devising tasks which fire children's enthusiasm".<sup>27</sup>

It is very important that teachers set interesting and motivating projects that capture the initial interest of the student. This I believe is the first step on the road to creativity. In order to create interesting and motivating tasks a teacher must have personal qualities, as outlined by Parnes previously in this chapter. The teacher must be dedicated and enthusiastic about a project as this enthusiasm is in turn reflected upon the student's performance.

### THE TEACHING OF SKILLS:

Mock 1970, maintains that teachers should not be afraid to teach skills.

# egerterritationer och af att gan fog arbeiden fördatt sat

n diampin'ny kaodina minina

She believes that many young children receive no guidance about how to use materials, due to the faulty belief that this will in some way hinder or damage the spontaneous imagination of a student. Sometimes the way art is taught may negate creativity or on the other hand teaching for creativity can sometimes negate art. Art projects can be designed to give students a great variety of experiences with many materials, whereas others prefer to have students concentrate on few materials that are explored more fully. According to Lowenfeld, those who favour the 'breath ' approach feel that "the variety of materials accommodates the different interests of students and keep their attention",<sup>28</sup> while the 'depth' approach, "concentrating on few materials leads to sequential learning".<sup>29</sup> According to Brittain 1969, the vast majority of art programmes taught in schools are basically breath programmes, with one project following another week by week. The danger is that students may begin to feel that art is nothing more than a series of little projects or a series of experiments with materials, bearing little relationship to expression or creativity.

My view is that the depth approach must be the correct one. Students have to know how to use materials and have experience in an area of art in order that they can be creative. Students have to have guidance in the use of materials in order that they can be sensitive with this particular medium or area of art and in turn be creative. Kern 1978 believes that "*learning in the arts involves the mastery of complex skills., none can be learned in an hour, a day or a week and real mastery requires a lifetime*".<sup>30</sup>

As I have already stated in chapter 1 the creative act involves divergent and lateral thinking. Fontana states that the creative act typically involves four stages, preparation, incubation, inspiration and verification. The preparation stages concerned with the recognition that a particular problem is worthy of study. This reinforces the point that teachers should set interesting and motivating tasks to capture the interest of the student.



The incubation stage is where the problem or theme is mulled over often at an unconscious level. The inspiration stage is when the possible solution or a flood of ideas come abruptly into the conscious mind. The verification stage is when the solution is put to the test or ideas are tried out on paper.

One possible technique that is effective in stimulating creativity, and I believe reinforces the incubation and inspiration stages of the creative act, is the technique of Brainstorming. Parnes 1967 states that "*participants in a brainstorming session,work as a group and are encouraged to generate ideas in response to a particular problem. Nothing is regarded as too wild or inappropriate and no criticisms of any kind are offered"*.<sup>31</sup> J.W. Santrock agrees that the exercise of brainstorming is particularly useful in fostering creativity with the students, he goes further to suggest that sessions may be tape recorded and played back to stimulate further inspiration:

"Participants should be encouraged to combine ideas that have been already recorded".<sup>32</sup> During my teaching practice and with all my schemes of work, I have used the technique of group brainstorming, as it is a very effective exercise in developing student's creative thinking. It gives each student the opportunity in a relaxed environment to express their view point. The non judgemental atmosphere allows each student to let her thoughts on the problem come without criticism. This, as much as the solution of the problem itself has educational value. Using the exercise of group brainstorming promotes my criteria for creativity established in chapter 2, namely depth of thinking and novelty. Students use more divergent and lateral thinking and employ a mode of thinking that involves originality and fluency, inevitably arriving at the most novel solution.

An exercise that I have used that proceeds the brainstorming exercise, and

fulfils Fontans's verification stage in the creative act, is the exercise of thumb nail designs. After coming up with numerous ideas during the brainstorming session, students put these ideas into practice on paper. I always give the student a given number of thumb nail sketches to do, giving the students some choice. This continues to push the student's creative thinking and avoids working on a single plan. Choice is a very important factor in the creative process. Fryer 1996 states that "if children are given choice their attitude to a piece of work will be more creative, choice gives children a sense of ownership of their work, which increases their involvement in it".<sup>33</sup> Here my criterion of appropriateness established in chapter 2 comes into play. While it is important that judgement is withdrawn from the brainstorming exercise during the incubation and inspiration stages, here at the verification stage, using thumb nail designs for the finished project, the skill of appropriateness must be applied. Students must ensure that their novel solutions are appropriate to the given problem. This highlights the correct perception that creativity is not 'airy fairy' but is hard work.

### <u>THE MEASUREMENT OF CREATIVITY:</u>

Considering the conditions, styles and strategies previously discussed, that promote creativity, one comes to the conclusion that creativity can be developed or increased. Therefore it would be useful to have some sort of measure available to check any increase in a students creative growth. For this some sort of creativity test would be necessary. One of the most commonly agreed upon components of creative thinking is the ability to produce a large number of ideas, this is usually referred to as the fluency factor. Lowenfeld states that a simple way to test this is to ask *"how many uses can you think of for a brick? . The more ideas one can put down on paper, apparently the more fluent one is*".<sup>34</sup> Another factor usually



considered is the ability to shift easily from one type of thinking to another or to be flexible in ones thinking patterns. An additional factor often considered part of creative thinking is the ability to come up with unusual or novel ideas, which is often referred to as the originality factor. A number of other factors are often looked for in a testing situation, seeing relationships where others might miss them, being able to elaborate on an idea, being sensitive to problems or seeing ways of improving or changing a situation or object.

Creativity tests do not have to be verbal. An example of a non verbal test is Guilford's Circles test. This is where students are confronted by a sheet of small uniformly sized blank circles and are asked to use a pencil to turn as many of them into recognisable objects within a given time. This year before beginning my lesson schemes I did the Guilford Circles test with my students. I also did the test again towards the close of their projects when the teaching styles and strategies as outlined previously in this chapter had been used. In chapter 4 I intend to compare the results to evaluate whether there was an increase or growth in students creativity.

There have been some criticisms about the use of creativity tests in the art room. Do we want to burden the child with another score to carry around. Schools may feel it wise to locate the most creative children and give them special treatment. My view is that it would be an advantage to use these tests to find the least creative child in the class so one can use strategies and methods, as outlined previously, to encourage him or her to explore his environment, to become more flexible in his or her thinking and to be more fluent in his or her thoughts.



## CHAPTER 4 CLASSROOM APPLICATION

### SCHOOL PROFILE

This year I conducted my teaching experience in Our Lady of Mercy, Beaumont, an all girls convent school run by the Mercy Order. The school is situated on the north side of Dublin and its catchment area includes Beaumont, Collins Ave., Whitehall and Artane. Due to the school's location, the student body is comprised of girls from mixed backgrounds with few discipline problems.

The school is well run with a positive atmosphere and a good teacher/pupil relationship. Past student teachers along with myself have found a good support system within the school, particularly from Mary Byrne, the art teacher.Art as a subject seems to have a prominent presence within the school, as work is displayed along the corridors, There is also a strong evidence of cross curriculum activity between the art room and other subjects for example set design for fashion shows and school drama. The art room itself is well equipped for practical activity, the room has two kilns, a good supply of paints, brushes paper and other tools. The room is flooded with natural light from windows along one wall and skylights. This natural light gave the room a positive working atmosphere, however was a hindrance for the showing of slides during art history.

My teaching practice experience comprised of 25 weeks. During this time I took 2nd.and 5th year classes for practical work and a 6th year group for art history. The scheme of work which I will present concerns my 5th year group.



### SCHEME DESCRIPTION

The 5th year project that I will present lasted for a period of 13 weeks. During this time we completed an A2 painted self portrait exploring the theme of self identity. Students began the project with observational drawings of themselves and thematic objects. Here we covered the art elements line, shape, tone, form, colour and texture. Students also learned about the design principles while designing and scaling up the composition for their portraits, these included composition, balance, rhythm, variety and symmetry.

This project created a perfect opportunity to enhance student's creative thinking. Students previous to this had a preconceived perception of portraiture as a means of purely capturing the physical likeness of the person. One of my core objectives during this project was to broaden this narrow perception of portraiture and to encourage students to exercise their creative minds and to simply think. I hope to encourage students to view self portraiture not merely as a physical record of themselves but as an expansive medium that could give an insight into their personalities, lives and interests. The exercise of group discussion played a crucial role during this scheme. Students were encouraged to participate in group evaluations discussing and presenting their work and ideas. Exposing the group to interesting and inspiring support studies also played an important role. Again the important objective of broadening student's perception of portraiture came into play. Students were encouraged to employ creative thinking not solely with their own portraits but in the reading and appreciation of others. I also thought it very important to expose students to my own work, sharing and discussing the ideas and feelings expressed through my own self portraits. What follows is a description of the scheme.



<u>Aim</u>: To introduce students to the exploration of portraiture, with a view to completing a creative self portrait, using observational drawing as a starting point and self identity as a theme.

Duration: 13 weeks.

Theme: self identity.

Source: observational drawings of students and thematic objects.

**Objectives:** 

\* To broaden student's perception of self portraiture through the exercise of brainstorming on the theme of self identity.

\* To introduce the art elements line and shape through observational line drawing focusing on individual features of the face.

\* To introduce the art element of form, by exploring and recording the planes of the face.

\* To introduce the art element of tone and to reinforce the art element of form by exploring and recording the various tones of the face.

\* To introduce the art element of colour, by exploring and recording the various colour tones of the face.

\* To promote creative thinking when selecting thematic objects for the backdrop of the portrait.

\* To develop the student's understanding of composition and colour, through colour thumb

nail designs.

\* To reinforce the art elements of form tone and colour through the technique of paint mixing and application while painting the portrait.



### <u>METHODOLOGY</u>

### LESSON 1

During lesson 1 the students were introduced to the project. At this time in a teenagers life it is important to develop a sense of self identity. However this topic can be difficult for a teenager to vocalise. In order to overcome this difficulty the class conducted a brainstorming exercise where they explore the theme of self-identity to give ideas for their selfportrait (fig. 1).

Resulting from my previous research during this dissertation, I have found that students in order to be creative in a particular area, they have to have confidence and experience in this area. I decided that in order for this 5th year group to produce creative self-portraits, they would have to become familiar and confident in the area of portraiture. Therefore I dedicated a number of classes to the drawing and recording of the face, in order that they would become sensitive in the area of portraiture and in turn be creative with it. With this class we started from the very beginning studying individual features of the face in line and shape (fig.2).

As a means of measuring creative growth I used Guilford's Circle test (appendix 1). The students completed a circle test at the beginning of lesson1. This was to measure student's creativity before employing methods for its promotion such as brainstorming, thumbnail designs and group discussion etc. This test was repeated at the end of the project to determine if creative growth did occur.

SUPPORT STUDIES: Rachael Howis (fig. 3), Albrecht Durer.

<u>VISUAL AIDS</u>: Studies of individual features of the face, the proportions of the face and my own self portrait.



private pessonale pessonale Teddy bears soft CD'S warm perfume Oasis cueldly make - up The verve flome belts sofe jeveller Pulp Bedroom familian Me La. Quilt teenagers Dressing table ornaments Fashion Combats Spiders scarey Water dark black runners black Adidas sea waves self Drowning Parents Gentity - mam English - Dad Ciara Music the Louise Drama Granny BOOKS Art Min Clothes Friends Mary mat Interests Mc Donalds Future brown hair "ne shopping Café s Journalism English Literature blue eyes Dublin Maere Binchy Happy, warm, safe Our lady of Mercy Beaumont 5rr year Deirdre Purcell

Figure 1 - Student brainstorming exercise.

25





Figure 2 – Students recording individual features.







### LESSON 2

In order to break the transition from the study of the face in line into tone, students completed a detailed study of the various planes of the face (fig. 4). This exercise would continue to build student's confidence in the area of portraiture.

### SUPPORT STUDIES: Lev T. Mills.

VISUAL AIDS: Diagrams showing the planes of the face.

### LESSON 3

Students completed tonal studies of their faces, referring to their past plane study of the faces to reinforce this task (fig.5). Students as with all observational classes complete the exercise with the aid of a mirror.

#### SUPPORT STUDIES: Raphael.

<u>VISUAL AIDS</u>: Diagrams showing the study of the various tones of the face.

### LESSON 4

During this class students while observing their face in the mirror mix up and record the varying colour tones of the face. Students create a spider chart recording the various tones and this chart will act as a palette for the pending classes. The students are gradually developing a confidence in the area of portraiture.

#### SUPPORT STUDIES: Jane Corsellis.

VISUAL AID: A visual aid showing the various colour tones of the face and my own self portrait (fig. 6).





Figure 4 – Student study, recording the planes of the face.




Figure 5 - Student study, recording the tones of the face.





Constant and Constant

in property of the property of the second party of the

#### LESSON 5

Students while modeling for each other produce more sensitive and loose sketch work using the medium of charcoal (fig. 7). Students continually participate in group discussions focusing on further examples of support studies showing creative thematic self portraits.

SUPPORT STUDIES: Maggi Hambling (fig. 8), Tom Philips.

VISUAL AIDS: Visual aids showing loose observational drawings of people.

#### LESSON 6-7

Students while observing individual thematic objects, firstly produce line drawings (fig. 9), secondly use a view finder to focus in on interesting areas of line and shape. These view found areas will act as the backdrop for the portrait (fig. 10). Students thirdly scale up and enlarge this area to A2 size using the grid system. Resulting from the research on the topic of creativity I understood the importance of giving the students choice while designing. Students had to view find and record at least 4 separate areas on their observational drawings, in order that they would have a choice for the backdrop of their portrait.

SUPPORT STUDIES: Freda Kahlo (fig. 11), Diego Rivera, Gustav Klint.

<u>VISUAL AIDS:</u> Visual aid showing a view found area on an observational drawing.











Figure 8 – **Maggi Hambling**, 'Irina Ratushinska' c.1987.





Figure 9 – Students' observational line drawings of thematic objects.





Figure 10 – Students' view found areas from observational drawings.





Figure 11 – **Freda Kahlo**, Self Portrait, c. 1940.

· \*\* \*

#### LESSON 8

Students design a composition for their portraits using thumbnail sketches, exploring the element of colour and its effect on the mood of the portrait (fig. 12). Again the factor of choice came into play with this class. Students had to do at least 4 thumbnail designs for the composition of their portraits rather than focusing on one single design. The exercise of thumbnail designs develops the students creative thinking.

SUPPORT STUDIES: Pablo Piccaso, Jesus Guerrero Galvan..

<u>VISUAL AIDS</u>: Colour wheel showing primary, secondary, tertiary and complementary colours.

### LESSON 9-11

Students firstly scale up the composition to A2 size and paint the backdrop of the composition (fig. 13). Students again could recall on their previous colour studies of thematic objects to reinforce this task. Students could also refer to the primary source.

<u>SUPPORT STUDIES:</u> Jack Pakenham, Desmond Carrick. <u>VISUAL AIDS:</u> Visual aid showing paint application.





39

Figure 12 - Students' thumbnail designs for self-portrait.





Figure 13 – Students painting the backdrop of their portraits.





#### LESSON 12-13

Students while observing their face in the mirror and referring to their previous colour tone exercise paint the face of their portrait to complete it (fig. 14). Students previous to this had built a confidence in portraiture and in turn had become more sensitive in their expression. Their painting techniques had become more advanced and resulted in a very successful finish to the portrait. Students were encouraged to participate in a group evaluation presenting and discussing their portrait.

Students completed a second circle test to measure if creative growth had occurred (Appendix 2).

<u>SUPPORT STUDIES:</u> Tim Goulding, Tom Philips (fig. 15), Jane Corsellis, Denis H. Osborne. <u>VISUAL AIDS:</u> My own self portrait.







Figure 14 – Students' completed self-portraits.





Figure 15 – **Tom Philips**, Adrian Mitchell, c. 1987.

## 그 집에는 제 방법을 위해 도 위험을 위한 것을 맞았다.

# ASSESSMENT OF SCHEME

#### PUPILS PERFORMANCE

Overall the scheme proved to be very successful. The students responded very well to the project. I addressed the project as an advanced scheme of art work and this in turn resulted in drawing a sense of maturity from the group. The group appreciated the opportunity to address the topic of self identity and enthusiastically participated in the brainstorming and group discussion sessions.

In order that the group could be creative in the area of self portraiture, I felt it was very important firstly to develop the student's skills in observational drawing and paint application. Students mastered the observation of their own faces, starting with the study of individual features, proportions of the face, various planes of the face and moving on to tonal studies. This preliminary drawing enabled the students to develop a sense of the art elements line, shape tone and form. This practice of observing the face also helped to combat the student's anxiety in the area of portraiture.

Within the brainstorming group discussion sessions students were required to select and present thematic objects to be included in their portrait. These group discussions spurred student's creative thinking and broadened their perception of portraiture. Also with these group discussions there was a growth in student's idea and opinion development. Initially the students were reluctant to share opinions within the group and found the topic of self identity a difficult issue to elaborate on. However as the scheme progressed I found the students became more forthcoming and articulate. 그렇는 가지지 않다. 그는 것 않았지만 않는

### 이 지수는 아님은 말했던 것 같아요.

The practice of thumbnail designs within the design process proved very effective in promoting the student's creative thinking. Previous to this students would settle for a single solution to the problem and limit their creative thinking. By encouraging the students to explore at least 4 thumbnail designs for the portrait they were urged to employ more lateral and divergent modes of thinking and therefore arriving at the ultimate solution.

Again during the painting stages of the project I focused on the important role that the teaching of skills plays in the promotion of creativity. Students developed a good understanding of paint mixing and application prior to completing the portrait. They grasped the art elements colour tone and form which resulted in very successful finished painted portraits.

As previously discussed in Chapter 3 under the measurement of creativity it is useful to have some sort of measure available to check any increase in a student's creative growth. To achieve this measurement I decided to use Guilford's Circle Test. Commonly agreed upon components of creative thinking are the fluency factor, the ability to produce a large number of ideas, the flexibility factor that is the ability to shift easily from one type of thinking to another and the originality factor, being able to come up with unusual or novel ideas. I found Guilford's Circle test particularly useful in measuring the development of these three components of creative thinking.

As I have stated students did the circle test before the project commenced and we repeated the circle test at the close of the project after promotional methods of creativity, such as brainstorming, thumbnail designs and group discussions had been employed. If one compares the results of the



earlier circle tests (Appendix 1) and the later circle tests (Appendix 2), there is a notable improvement in the components of fluency, flexibility and originality.

Students developed in the area of fluency completing more circles in the second test than on the first. Students also developed in the areas of flexibility and originality. With the first test students tended to settle for basic circular solutions to the problem such as a ball, sun or wheel etc. However with the second test students became more flexible and original with their solutions. Students now joined circles together to make objects and changed the circular format of the circle to make cameras, traffic lights etc.

As these tests prove useful in measuring creative growth one has to take into account that this test was done over a short space of time, To achieve an accurate gauge of student's creative growth an assessment would have to be made over a longer period of time. The circle tests completed with the 5th years indicated that creative growth did occur, suggesting that promotional methods such as a good atmosphere and environment, setting interesting tasks, teaching skills, brainstorming, thumbnail designs and group discussions are effective in developing student's creativity. One cannot take these results as concrete but should view them as an indicator of growth.

#### PERSONAL PERFORMANCE

I approached the project in a logical step by step manner beginning with observational drawing and taking the students through the relevant skills. I felt that I pitched the project at a suitable level for the age of the group.



Initially I was dubious about the lengthy nature of the scheme and considered deleting areas of the project. However upon completing the scheme and seeing the results I see now that every class was necessary. Students were nervous about the area of portraiture and needed all the time allocated to observational studies to develop a sense of confidence. Upon reflection I would like to have dedicated more time to class discussion, as students responded very well to this exercise. The informal atmosphere of these discussions seemed to give courage to less vocal students in the group. It is important to understand that some students are more vocal than others and not to place precedence on verbal assessment. As a teacher it is important to be aware of non verbal signs that students can give in showing interest or understanding concepts.

Ideally if I was to teach the project again I would like to increase the scale of the painted portrait from A2 to A1 as this would give greater freedom in the scale, expression and paint application of the student's portrait. This could also be achieved by using large mirrors for observation. Students would be able to record more of themselves and give greater expression to their pose. Due to the tight time constraints within the standard art time table, the desire for extra group discussion time and a larger format for the portraits is made virtually impossible. On the standard time table art is given only 4 periods in comparison to the 5/6 period time slot allocated to more academic subjects. Perhaps the need for extra discussion time and more advanced art projects could be addressed through the expansion of art class time in the curriculum.


## CONCLUSION

Creativity is a precious commodity, and creative people are generally more content, holding the ability to express their feelings and emotions. They are the people who make the great advances in our society, whether in art or literature, medicine or science, moving our civilization forward.

We as art teachers play an extremely important role in the development not only of art but of students themselves through the promotion of their creative potential. One must understand that it is not the finished product that solely concerns us, it is not the picture or the properly executed clay piece that displays the full development of the student. Rather it is the value of these experiences to the student that is important. If the student has increased an awareness of their environment, has broadened their minds and has had the opportunity to express feelings and emotions, then we as educators have succeeded.

When one is analysing the subject of creativity one must focus primarily on the creative process and the mode of thinking that the student adapts while creating. When attempting to promote students creative potential one must take certain promotional factors into consideration, such as atmosphere and environment, setting interesting tasks that capture student's attention, the teaching of skills and the use of promotional exercises such as brainstorming. In presenting my 5th year scheme of work these factors have proven successful in promoting student's creative potential. The results of Guilford's Circle test, although not absolute have indicated student's creative growth.



Teaching creative behaviour is an immense responsibility. It not only effects the individual but effects society as a whole. If one can encourage students to be creative and to broaden their minds, this will result in a more open minded and fulfilled society, for "to be creative ultimately is to be nothing more than human. To be human is of necessity to be creative".<sup>35</sup>



NAME: Emma chilerrigian 2nd - 10th - 97 YEAR: 5th

In five minutes see how many objects you can make from the circles below. A circle should be the main part of what-ever you make. With a pencil add lines to the circles to complete your picture. Your lines can be inside the circle, outside the circle or both. Try to think of things no one else will think of. Make as many things as you can and put as many ideas as you can in each one. Add labels or titles if the identity of the object is not clear.



Appendix 1



## NAME: Emma Merrigian 2nd - 4th - 98. YEAR: 5th

In five minutes see how many objects you can make from the circles below. A circle should be the main part of what-ever you make. With a pencil add lines to the circles to complete your picture. Your lines can be inside the circle, outside the circle or both. Try to think of things no one else will think of. Make as many things as you can and put as many ideas as you can in each one. Add labels or titles if the identity of the object is not clear.





## FOOTNOTES.

- 1. Fontana, David, <u>Psychology for Teachers</u> (London, Macmillan Press, 1993), p. 111.
- 2. Lowenfeld, Victor, <u>Creative and Mental Growth</u> (New York, Macmillan Press, 1981), p. 69.
- 3. Fryer, Marilyn, <u>Creative Teaching and Learning</u> (London, Paul Chapman Publishing Ltd., 1996) p.12.
- 4. Fryer, Marilyn, <u>Creative Teaching and Learning (</u>London, Paul Chapman Publishing Ltd., 1996) p.12.
- 5. Fryer, Marilyn, <u>Creative Teaching and Learning</u> (London, Paul Chapman Publishing Ltd., 1996) p.12.
- 6. Fryer, Marilyn, <u>Creative Teaching and Learning (London, Paul</u> Chapman Publishing Ltd., 1996) p.12.
- 7. Fontana, David, <u>Psychology for Teachers</u> (London, Macmillan Press, 1993), p. 93
- 8. Fontana, David, <u>Psychology for Teachers</u> (London, Macmillan Press, 1993), p.111
- 9. Fontana, David, <u>Psychology for Teachers</u> (London, Macmillan Press, 1993), p. 115
- 10.Fryer, Marilyn, <u>Creative Teaching and Learning (</u>London, Paul Chapman Publishing Ltd., 1996) p.4.
- 11.Fryer, Marilyn, <u>Creative Teaching and Learning (</u>London, Paul Chapman Publishing Ltd., 1996) p.4.
- 12.Fryer, Marilyn, <u>Creative Teaching and Learning (</u>London, Paul Chapman Publishing Ltd., 1996) p.5.
- 13.Fryer, Marilyn, <u>Creative Teaching and Learning (London, Paul</u> Chapman Publishing Ltd., 1996) p.5.
- 14.Fontana, David, <u>Psychology for Teachers</u> (London, Macmillan Press, 1993), p. 111.
- 15.Fryer, Marilyn, <u>Creative Teaching and Learning</u> (London, Paul Chapman Publishing Ltd., 1996) p76.
- 16.An Roinn Oideachas, Junior Certificate Art, Craft and Design Curriculum, (Dublin, Department of Education, 1987), p. i.
- 17. An Roinn Oideachas, Junior Certificate Art, Craft and Design Curriculum, (Dublin, Department of Education, 1987), p. i.
- 18. An Roinn Oideachas, Junior Certificate Art, Craft and Design Curriculum, (Dublin, Department of Education, 1987), p. 1.
- 19. An Roinn Oideachas, Junior Certificate Art, Craft and Design Curriculum, (Dublin, Department of Education, 1987), p. 2.
- 20.An Roinn Oideachas, Junior Certificate Art, Craft and Design Curriculum, (Dublin, Department of Education, 1987), p. 2.
- 21. An Roinn Oideachas, Junior Certificate Art, Craft and Design Curriculum, (Dublin, Department of Education, 1987), p. 7.
- 22.Fryer, Marilyn, <u>Creative Teaching and Learning (London, Paul</u> Chapman Publishing Ltd., 1996) p69.
- 23.Fryer, Marilyn, <u>Creative Teaching and Learning (London, Paul</u> Chapman Publishing Ltd., 1996) p77.



i a porta de la companya de la compa Porta de la companya d Porta da companya de la companya de l

는 것이 가슴 가지가 가지 않는 것이 가지 않는 것이 같다. 1119년 - 2019년 1일, 2017년 1일, 2019년 1일, 2019년 1일, 2019년 - 2019년 - 2019년 1일, 2019년 1월, 2019년

- 24.Fryer, Marilyn, <u>Creative Teaching and Learning</u> (London, Paul Chapman Publishing Ltd., 1996) p77.
- 25.Fryer, Marilyn, <u>Creative Teaching and Learning</u> (London, Paul Chapman Publishing Ltd., 1996) p75.
- 26.Fryer, Marilyn, <u>Creative Teaching and Learning</u> (London, Paul Chapman Publishing Ltd., 1996) p76.
- 27.Fryer, Marilyn, <u>Creative Teaching and Learning (London, Paul</u> Chapman Publishing Ltd., 1996) p79.
- 28.Lowenfeld, Victor, <u>Creative and Mental Growth</u> (New York, Macmillan Press, 1981), p.87.
- 29.Lowenfeld, Victor, <u>Creative and Mental Growth</u> (New York, Macmillan Press, 1981), p.87.
- 30.Lowenfeld, Victor, <u>Creative and Mental Growth</u> (New York, Macmillan Press, 1981), p.88.
- 31.Fontana, David, <u>Psychology for Teachers</u>, <u>1st. edt.</u> (London, Macmillan Press, 1981), p. 45
- 32.Santrock, John W, <u>Child Development</u> (U.S.A., W.M.C. Brown Publishers, 1987) p.305
- 33.Fryer, Marilyn, <u>Creative Teaching and Learning (London, Paul</u> Chapman Publishing Ltd., 1996) p82.
- 34.Lowenfeld, Victor, <u>Creative and Mental Growth</u> (New York, Macmillan Press, 1981), p.77.
- 35.Shallcross, Dorid J, <u>Teaching Creative Behaviour</u> (New Jersey, Prentice-Hall Inc, 1981), p.213.



## **BIBLIOGRAPHY.**

An Roinn Oideachas	<u>Junior Certificate Art, Craft and Design</u> <u>Curriculum</u> Dublin, Department of Education, 1987
Chapman, Laura	Approaches to Art in Education. U.S.A., Harcourt, Brace, Jovanovich Inc., 1978
Cohen, Gillian	<u>The Psychology of Cognition</u> London, Academic Press, 1997
De Bono, Edward	<u>De Bono Thinking Course</u> B.B.C. Television Publication, 1983
Fontana, David	Psychology for Teachers, First Edition. London, Macmillan Press, 1981
Fontana, David	Psychology for Teachers, Revised Edition. London, Macmillan Press, 1993
Fryer, Marilyn	C <u>reative Teaching and Learning</u> London, Paul Chapman Publishing Ltd. 1996
Gardiner, Howard	Art Mind & Brain, A Cognitive Approach New York, Basic Books, 1982
Glover John	<u>Handbook Of Creativity</u> New York, Plenum Press, 1989
Lowenfeld, Victor	<u>Creative and Mental Growth</u> New York, Macmillan Press, 1964
Nostrand, Van	Children's Growth Through Creative Experience London, Nostrand Reinhold Co. Ltd. 1974
Parnes, S.J.	Source Book for Creative Problem Solving New York, Creative Education Foundation Press, 1992
Santrock, John	Child Development U.S.A., W.M.C. Brown Publishers, 1987
Shallcross, D.J.	<u>Teaching Creative Behaviour</u> New Jersey, Prentice-Hall Inc. 1981
Sprinthall, Normanda	Educational Psychology, A Developmental Approach New York, Mc Graw-Hill 1974

이 가슴에 많은 소리에서 가지 않았다. 이 가지 않는 것이 있습니다. 이 아이들은 것은 것은 것은 것은 것은 것은 것이 있는 것이 있는 것이 있는 것이다. 이 아이들은 것은 것은 것은 것이 있는 것이 같은 것이 있는 것이 같은 것이 같은 것이 같이 같이 같이 같이 같이 있다.

· 2441년 - 2711년 - 1712년 - 1817년 1817년 - 1817년 - 2718년 - 2717년 - 2711년 - 2711년 - 1817년 - 2817년 - 2817년 - 1817년 - 1817년

State C. W. Big and the C. Source Press, Name State (1988), 1999;

hong <sub>an</sub> su**hong ku**tha an tao kaominina amin' amin Amin' amin

bu Brautt (Maau 1977) 1977 - Angeland 1977 - Angelander (Maa

ganal taik

a anto da electra

52.00

Weisberg, Robert

Creativity New York, W.H. Freeman & Co. 1986

