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The Artistic Expression of Kindergarten Children after a 'Guided' Teaching Approach

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SUMMARY: This study describes the results of an empirical research project concerning the artistic abilities of children aged 4,5 and 6 years and their development, when these children make drawings within a "guided" teaching intervention. This research is based on an operational use of Luquet's ideas, which have been used, not only as a descriptive and explanatory framework, but also as a synthetic teaching tool. The main characteristics of the proposed teaching intervention are: a) the conceptual approach of the teaching content, b) the use of alternative artistic activities in relation to drawing and c) the use of narration / observation / discussion as a unified pattern in teaching activity. The results presented show that the proposed teaching intervention provides improved drawing results in relation to the artistic results of the children who attended the traditional "natural" teaching approach. It is claimed that the cognitive development of the children who attended the "guided" teaching programme happens at a faster rate, since the approach of satisfying artistic abilities is achieved sooner than the age period at which this would occur if no interventions took place in the children's natural development.

RÉSUMÉ: Cette étude présente les résultats d'une recherche empirique concernant les capacités artistiques des enfants de 4, 5 et 6 ans et leur évolution quand ces enfants dessinent dans le cadre d'une intervention didactique "guidée". L'étude est basée sur l'exploitation opérationnelle des idées de Luquet qui sont utilisées non seulement comme un cadre descriptif et interprétatif mais encore comme un instrument d'enseignement synthétique. Les principales caractéristiques de cette intervention sont les suivantes: a) l'approche conceptuelle du contenu de l'enseignement, b) l'utilisation d'activités artistiques alternatives liées au dessin et, c) l'utilisation du récit, de l'observation et du dialogue comme un modèle unifié de l'enseignement. Les résultats présentés dans cette étude montrent que l'intervention proposée améliore les dessins par rapport à ceux obtenus dans le cadre de l'approche traditionnelle « naturelle ». On conclut que le rythme du développement cognitif des enfants ayant participé au programme d'enseignement "guidé" est plus rapide puisque des résultats artistiques satisfaisants sont atteints plus vite qu'à l'âge où ils pourrait être obtenus s'il n'y avait pas d'intervention dans le développement naturel des enfants.

ZUSAMMENFASSUNG: In dieser Studie werden einige Ergebnisse einer Forschung dargestellt, die die Entwicklung künstlerischer Ausdrucksfähigkeiten von Kindern im Vorschulalter (4,5 – 6 Jahre) untersucht, wenn sie im Rahmen einer systematischen "angeleiteten" didaktischen Intervention zeichnen. Die Forschung basiert auf der Operationalisierung der Vorstellungen von "Luquet", die nicht nur als beschreibender und erläuternder Rahmen, sondern auch als didaktisches Mittel genutzt werden. Die grundsätzlichen Merkmale der vorschlagenden "angeleiteten" didaktischen Intervention sind: a) Der besondere konzeptionelle Zugang zum Unterrichtsinhalt, b) die Nutzung alternativer künstlerischer Aktivitäten mit Bezug zum Zeichnen, c) der Einsatz von

Erzählungen, Beobachtungen und Diskussionen als integriertes Muster der didaktischen Aktivitäten. Die Resultate, die hier präsentiert werden zeigen, dass die vorgeschlagene didaktische Intervention zu verbesserten zeichnerischen Ergebnissen führt, verglichen mit Kindern, die eine traditionelle didaktische Interventionen erfahren haben. Die Ergebnisse lassen uns behaupten, dass die kognitive Entwicklung der Kinder, die an den hier beschriebenen "angeleiteten" didaktischen Interventionen teilgenommen haben, schneller voranschreitet. Zufrieden stellende künstlerische Ausdrucksfähigkeiten werden früher erreicht als das der Fall wäre, wenn es keine Interventionen in der normalen Entwicklung der Kinder gegeben hätte.

RESUMEN: En este trabajo se describen algunos resultados de una investigación cuyo objetivo es el examen de la capacidad artística de los niños de edad preescolar (4, 5 - 6 años) y su desarrollo, cuando dibujan en el marco de una intervención didáctica sistemática y "guiada". La investigación está basada en la explotación funcional de las ideas de Luquet que se usan, no solo como un marco de referencia descriptivo e interpretativo, sino también como una herramienta didáctica. Los elementos principales del contenido de la propuesta intervención didáctica "guiada" son: a) La aproximación conceptual del contenido didáctico, b) la utilización de actividades alternativas a la actividad de dibujo y c) la utilización de actividades de narración, de observación y de diálogo. Los resultados que se presentan aquí muestran que la propuesta intervención didáctica conduce a mejores resultados artísticos, en comparación con los esperados con las tradicionales intervenciones didácticas. Se constata que el desarrollo cognitivo de los niños que participaron en el programa de la intervención didáctica "guiada" se hace con ritmo acelerado, porque se obtienen mejores resultados artísticos antes de la edad que se esperan estos si no hay intervenciones en el desarrollo natural de los niños.

Keywords: Art education; Children's drawing; Early childhood education; Developmental stages; Teaching programme.

Research framework

As far back as the early 20th century, children's drawing has constituted a topic of research and systematic study by visual artists (Boissel, 1990), psychologists (Wallon et al., 1990; Davis & Gardner, 1993) and educators (Chapman, 1978). For different reasons, each one of the above categories of artists and scientists considers children's drawing a fundamental childhood activity. This may lead to interesting and useful conclusions concerning children's cognitive, emotional or psychokinetic abilities, their concept of aesthetics and their drawing ability, as well as their creativity. The connection of cognitive development and artistic expression is of particular interest. This connection is delved into systematically by Luquet (1991). In his work he considers children's drawing to be substantially realistic in intention. However, he claims that the child begins to draw what he knows about a person or object long before he can express what he sees in this way. Furthermore, Piaget uses Lyquet's ideas about the conceptualisation of children's drawing within the framework of establishing a theory about children's cognitive development (Piaget & Inhelder, 1980). However, a systematic recording of the related Greek and international bibliography (Arapaki, 2000) indicates that there are few research studies concerning children's drawing in classroom conditions, that is to say studies of the ways systematic teaching affects children's drawing and especially the cognitive abilities related to it. This observation applies mainly to preschoolers. There seem to be two reasons for this. The first reason concerns the widespread belief that cognitive activity and development in visual arts and other fields involving preschoolers has been already described systematically and sufficiently. This fact suggests that teaching activity would not add anything more to these descriptions. The second reason is related to an "unfolding" or "natural" teaching method, where the child is allowed to draw and paint without external intervention. In this case, the arts instructor has to play the role of a pedagogue, in the tradition of Rousseau, by

protecting the innocent and fragile young child from the harmful forces of society in order for its innate talent to be able to flourish (Gardner, 1982).

Contrary to the aforementioned, theoretical perceptions and empirical research show that, on the one hand, preschoolers have many more abilities than we think (Gelman, 1972; Davies & Gardner, 1993; Zafrana et al., 2000) and that, on the other, a child's emotional and cognitive development is especially favoured in interactive environments (Vygotsky, 1962). The Vygotskian perspective leads to an analytical approach that recognises the importance of the interactions of the interpsychological plane and in particular the nature of teacher-student discourse in the classroom. Thus, the teacher assists the children in achieving a level of performance within the "zone of proximal development" which the children would be incapable of whilst acting independently and will subsequently be able to achieve alone (Tharp & Gallimore, 1988). In research studies concerning art development in particular, McWinnie (1971) describes empirical studies which indicated that the specific task instructions given the subjects are critical to the aesthetic quality of the results, since the drawing is "triggered" by these specific instructions. Moreover, Wallon et al. (1990) refer to Fressard's studies which showed that children working together on the same task invent more easily and use more often the rules of perspective than children working alone. But what about systematic teaching?

These ideas support the research trend, which aims to highlight and investigate the artistic abilities of children in a teaching environment. Several researchers refer to the "guided" or "educational" approach, which does not constitute a dominant trend nowadays, but which can contribute to the development in a child of a rich intellectual potential, since "leaving the child on its own will never bring this potential to the surface, just like a small plant abandoned on a shady hillside" (Davies & Gardner, 1993). Thus, several Art Education teachers and/or researchers accept the importance of a systematic art education approach to the cognitive development of preschoolers. Thus they suggest specific teaching activity frameworks or models. For example, Chapman (1978) supports this view in relation to preschool age children, claiming that guiding the artistic process can contribute to improving the quality of that process. This can occur if the educator guides the children towards understanding the relation between the meanings they wish to express and the visual images that are able to convey them. "We usually limit ourselves to slowly teaching children a new technique, which, however, does not respond to any need they might have," says Widlocher and goes on to ask: "Drawing education can play a role in the spontaneous development of children's drawing, from the phase of smearing to adulthood, but what is its precise effect?" (Wallon et al., 1990).

This study wishes to contribute to the creation of reliable answers to such claims and questions. Our belief that teaching can improve the drawing of preschoolers, contributing to the further development of their cognitive abilities, has been transformed into a research programme the general principles and certain results of which we will be presenting here. Specifically, we will refer to the methodological axes of the research, we will describe the main principles of the teaching activities programme we proposed and, finally, we will present and discuss the quantitative and qualitative results of the research which support our belief. The main research questions were the following:

- To what extent can children produce improved drawings after participating in a new teaching programme based on cognitive objectives?
- Which are the differences (if any exist), at both the quantitative and qualitative level, between the drawings of children who participated in the new teaching programme and those who attended the traditional, "natural" curriculum approach?

Method

In order to answer the research questions, we designed a new teaching activity programme which was applied in the classroom by educators who have been informed about this programme. This information consisted of a description of the content of the teaching units as they appear on Table

1. Next, we compared the results of the artistic products of the children that participated in the new teaching approach to those of children that underwent the traditional “natural” teaching approach in kindergarten.

Sample

The sample comprised a total of 79 children, aged 4,5-6 years, both male (43) and female (36). Of these, 40 formed the experimental group, divided into two separate classes (18 and 22 children respectively), and 39 formed the control group, also divided into two separate classes (19 and 20 children respectively). The schools that participated in the research were state kindergartens and were selected from the same area of Athens in order to ensure the homogeneity of the sample in relation to social criteria.

Procedure

As a methodological axis for our research, we used an experimental plan with two measurements (before and after), using a control group (Cohen & Manion 1997). The experimental group represents the children which attended the “guided” teaching programme, while the control group represents the group of children which attended the “natural” teaching programme of the official programme currently in effect. The measurement of the artistic and drawing abilities of the children, both for the experimental group and for the control group, was carried out based on certain drawings, which were requested of the children before and after the application of the teaching programmes. That is, the children were asked to make three drawings: the “*human form*”, the “*house*” and the “*landscape*”. These three drawings were selected for the following reasons:

- a) These are drawings that are most often used in psychological and pedagogical research concerning children’s drawing (Wallon et al. 1990).
- b) These drawings are familiar to children of this age group. For this reason, no introductory discussion was necessary for the drawing of the “human form” and the “house”. Only in the case of the “landscape” was there an introductory discussion, in order that all the children in each group conceive the meaning of the word in the same way.
- c) These are subjects that are mentioned in the official kindergarten and elementary school programme currently in effect and are frequently used by kindergarten teachers who apply this programme.
- d) These three subjects constitute basic samples in Luquet’s (1991) typology of the stages of development of children’s artistic expression, which we used as a tool for the analysis of the results of the tests that the children underwent. Luquet claims that children’s drawings pass through different phases which constitute different conceptualisations (“internal models”) of reality. Specifically, Luquet’s typology includes three main cognitive stages that could also be used as evaluation categories of children’s drawings:
 - The “*incidental realism* (réalisme fortuit)” category (INCR), which includes those drawings that present representations which do not constitute recognisable renditions of the human form, the house or the landscape.
 - The “*insufficient realism* (réalisme manqué)” category (INSR), which includes those drawings that display one or more of the following characteristic features of this period, i.e., (i) a limited number of features of a specific object, (ii) the depiction of obvious disproportions in one or more objects, (iii) the omission of contact or enclosure between the various features of one or different objects, and (iv) the appearance of a different orientation of certain features in relation to other features of one or more objects.
 - The “*intellectual realism* (réalisme intellectuel)” category (INTR), which includes those drawings which, in first place, do not display the characteristic features of the two previous

categories and, secondly, display one or more of the following characteristics of intellectual realism, i.e., (i) the separation of various features of one or more objects which would make obvious the relation between them, (ii) transparency, i.e. the simultaneous depiction of the object and its content, (iii) a change in the visual angle which is usually presented as a simple and/or revolving projection on an axis, and (iv) the absence of perspective, i.e. not arranging the objects according to a whole drawing and not observing metrical proportions.

Instead of Luquet's classification, we could have used other classifications as that of Lowenfeld or Bernson. The choice of this specific classification was made because (i) it still constitutes a reliable tool for the analysis of children's drawing, (ii) it is a classification with which Greek educators are familiar, and (iii) it is expressed in an artistic language, which means that it can be used not only as an analytical tool, but also synthetically, in teaching.

Duration of the teaching intervention

The duration of the teaching intervention was three working months (2 periods per week). The post-test was administered one month after the end of the teaching intervention. So, for both groups, the time difference between the pre-test and the post-test was about four months. During the pre-test and the post-test, children did their drawings at the same time. In this study, we will present results for the separate classes as a whole, for both the experimental and the control group, since both classes produced results in the same direction.

The teaching approach

The programme consists of four broad teaching units. Each teaching unit includes a series of related artistic activities. These have been designed in such a way so as to aid the construction of artistic conceptual elements, which, for the children, constitute conceptual obstacles in their effort to artistically convey specific subjects. There are three discernible categories of basic characteristics in the proposed teaching programme:

a) The structure and the conceptual content of the teaching

The design of the structure and the content of the teaching are based upon two guiding principles:

- (i) On the *introduction and use of purely artistic concepts*, such as form, composition, concepts of colour, etc., on a level which children of this age can understand. Examples of the use of concepts which derive from artistic language occur when children are asked to use their hands to shape certain forms which they will then draw, or when they are urged to use specific colouring techniques (filling in, pointillism, linear technique, writing). The assumption is that the use of this kind of artistic conceptual framework as a new symbolic language, instead of the natural descriptive language that derives exclusively from the subjects the children are asked to draw, leads them necessarily to develop their artistic aptitude.
- (ii) In the gradual introduction of teaching activities based on the *functional use of Luquet's views in a teaching environment*. This use is none other than the reading of Luquet's stages as *cognitive obstacles*, which the preschoolers of our research would have to overcome during teaching. The notion of the cognitive obstacle has been used successfully in other topics, such as the topic of Science Education (Ravanis & Bagakis, 1998). An example of the application of this teaching feature is the planning of the sequence of subjects that the children had to draw. Thus, at first, simpler forms were introduced, such as a ball, clouds, the sun, and a tree, followed by the more complex forms of the house and the human, which, as subjects, come first in traditional activities. The sequence of the teaching units appears in Table 1.

TABLE 1: The sequence of teaching units

Units	Brief Description	Child's Desired Cognitive Development
1. Creation of a simple form (5 periods)	<ul style="list-style-type: none"> - Introduction of two artistic features: "form" and "colour". - Introduction to the use of the marker pen as the appropriate colouring material, which the children will be using throughout the activities. - Introduction to the use of colour techniques, such as pointillism, linear technique, etc. (Colour here is used not as a means of decoration but mainly as a tool for the children to develop their ability to create closed forms) - The children are asked to draw the form of a ball or a fruit. A collage activity and the making of a doll accompany the drawing activity. 	<p>According to the pre-test, the form is absent from most children's drawings. Consequently, the aim of this teaching unit is the creation of such activities, which will lead the children to begin making recognisable forms, starting with the form of a ball or a fruit. The choice of such a form is made because even the children that fall within the incidental realism category are able to draw curves, which tend to become closed forms.</p>
2. Creation of more forms - connecting two forms (5 periods)	<ul style="list-style-type: none"> - Introduction of three artistic features: "form", "colour" and "composition". - The children are asked (a) to draw three initially independent forms, (b) to draw two basic forms connected to each other, (c) to colour the three independent forms with three basic colours, and (d) to use the use of material techniques they learned in the first teaching unit, such as filling in and linear technique. - A collage activity and the making of a doll accompany the drawing activity. 	<p>In this unit an attempt is made to overcome the obstacle of "compositional inability" which characterises the stage of insufficient realism. We assume all the children that attended the first unit to be at this point. Specifically, the goal of the teaching in this unit is the creation of such teaching activities which will lead the children, on the one hand, to the construction of other recognisable forms and, on the other, to the awareness of the dimensions of the features of the space and their relation to each other.</p>

TABLE 1: The sequence of teaching units (continued)

Units	Brief Description	Child's Desired Cognitive Development
<p>3. Connections of more forms - creation of a complex form (10 periods)</p>	<ul style="list-style-type: none"> - Introduction of the artistic feature of connecting more than two forms, which may lead to the creation of more complex forms, such as the human form and the house. - Introduction of secondary and supplementary colours. A necessary prerequisite for the introduction of these elements is that the children be guided in observing familiar features in space, recognising them and becoming aware of their dimensions and their position in space. <ul style="list-style-type: none"> - The children are asked to draw complex forms, such as the human body and the house. - A collage activity and the making of a doll accompany the drawing activity. 	<p>The goal of the activities of this unit is twofold. On the one hand, the aim is for the children to maintain the effort to overcome their "compositional inability" and to begin to discern a relation between the various forms of their drawings. On the other hand, through the teaching of more complex forms, the aim for the children who have already moved on to the stage of intellectual realism, to begin to improve their performance. That means overcoming obstacles such as that of "suspension" or "disproportions", the obstacle of "transparency" and the obstacle of the "change in visual angle".</p>
<p>4. Creation of a composition of simple and complex forms (4 periods)</p>	<ul style="list-style-type: none"> - Introduction of the composition of simple and complex forms in space, using a wide range of colours. - The children are asked to draw complex forms, such as the landscape. 	<p>The forms, which the children combine in order to artistically convey a landscape, are the human form, a house, a tree, as well as other elements of the environment. In this unit, the children are lead to become aware, provided this had not already occurred, that each total of forms (a) comprises specific characteristic features which define and characterise it, (b) has its own dimensions, (c) holds a place in space, and (d) is related to the other features which surround it. For example, the children must understand and then express artistically the position of the tree in relation to the other features or the points at which the earth and sky come together.</p>

b) *The use of alternative artistic activities in relation to drawing*

In our programme, we believe that artistic activities using collage and a doll do not simply play the role of rousing and holding the children's interest during several teaching units, but that they can also contribute to the children's conceptual and artistic development. An example of this is the case of the activity during which the children are asked to draw the human form and then make up an analytical group collage. In this case, because of the very nature of the artistic activity (composition, analysis and re-composition of the forms), the children are given the opportunity to perceive the human form as a drawing whole and not as a total of independent body members.

c) *The use of narration/observation/discussion as a unified pattern in teaching activity*

A characteristic feature of the guided approach to teaching drawing is the creation of interventions on the part of the educator, which will guide the child towards a desired artistic development without, at the same time, imposing solutions that are external to its conceptual aptitude. Thus, in our programme, the subject and the instructions to the children are not given or imposed, nor are they given in the form of specific rules. They appear as artistic problems that are posed through a unified pattern of teaching activity, which comprises three separate activities: narration, observation and discussion. The *narration of stories* does not only introduce children to the thematic unit they will be working on but also gives them, indirectly, information about art notions such as form, composition or colour. Many times, observation complements the function of narration, since it is introduced as an experiential element. The observation we propose here is not free but *systematic and guided*, since that is the only way which enables children to choose the information which will help them to develop artistically according to the proposed teaching aims. Finally, discussion constitutes an integral part of the preceding activities because only then is it possible for the children to express themselves and for the educator to receive feedback regarding when and how they use the various artistic concepts, whether they understand the information and the instructions and, on the whole, whether the teaching activities correspond to their wishes and interests. The three separate activities we described constitute well-known and pedagogically valid tools that are often applied as teaching methods and techniques. What we claim here is that dealing with them as a unified pattern of teaching activities, and given the nature of the artistic content of the teaching, which requires the concurrent activation of the *imagination, visual perception and intellectual processing*, can enlarge their contribution to teaching.

There are also other factors which may affect the children's artistic results, such as the personality of the kindergarten teachers, the atmosphere in the classroom or other, non-artistic activities included in the analytical programme. Without underestimating the value of these factors, we believe that in this study all measures have been taken to neutralise these factors in relation to both the experimental and the control group, thus increasing the possibility that the children's artistic results are due, primarily, to factors related to the nature and content of the teaching itself.

Results

In this study we will be presenting the results in relation to the most complex drawing, that of the "Landscape". The presentation of the results is carried out on two levels: (a) on the *quantitative* level, where we will present the absolute frequencies of the three analysis categories, and (b) on the *qualitative* level, where we will present, in detail, the characteristic features of each drawing.

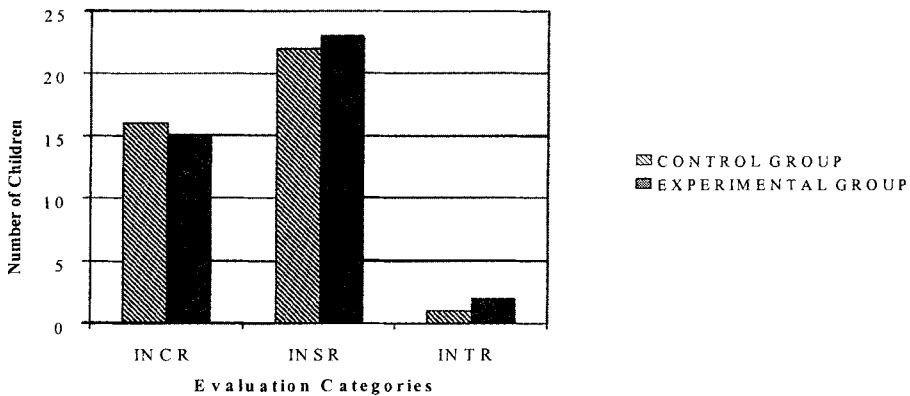
The proposed strategy for the reading of the data is related, as we have already mentioned, to Luquet's classification of children's drawing abilities.

The Pre-test

In the thematic unit entitled “landscape”, the study of the artistic result of the pre-test of both the experimental and control group is carried out based on Table 2 and its corresponding diagramme. This provides the absolute frequencies of the performance of the preschoolers by evaluation category.

TABLE 2: Absolute and relative frequencies of the performance of preschoolers by evaluation category in drawing the “Landscape” before teaching

	Control Group	Experimental Group
INCR	16 (41%)	15 (37.5 %)
INSR	22 (56.5 %)	23 (57.5 %)
INTR	1 (2.5 %)	2 (5 %)
TOTAL	39 (100%)	40 (100 %)



As can be seen in the table and its diagramme, the majority of the children of both groups conveyed the landscape with insufficient features prior to teaching. No child fully conveyed the features that made up the landscape. The majority of the children seem to belong, therefore, to the stage of insufficient realism. Typical examples of this are drawing 1 (Figure 1), which belongs to a preschooler in the control group and drawing 2 (Figure 2), which belongs to a preschooler in the experimental group. We also conclude that the total of the children of both groups, which participated in the drawing of the house, provided almost identical artistic results. In this case, therefore, we consider the cognitive starting point of both groups to be common. Similar results occur in the drawing of “Human Form” and “House”.

The Post-test

In the thematic unit entitled “landscape”, the study of the artistic results of the post-test undergone by both the control and experimental group is carried out based on Table 3 and its corresponding diagramme. This table clearly shows the differences between the drawing abilities of the children of both groups, since the *total* of the children of the experimental group display an artistic performance which allows us to classify them in the intellectual realism stage. This is not the case with the children in the control group, about half of which are classified in the intellectual realism stage, while the other half are classified in the insufficient realism stage. No child was classified in the incidental realism stage.

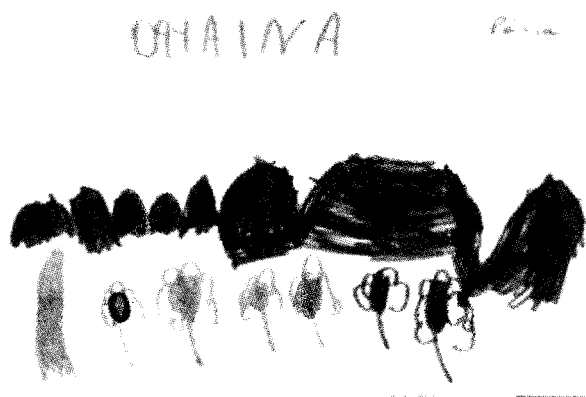


FIGURE 1

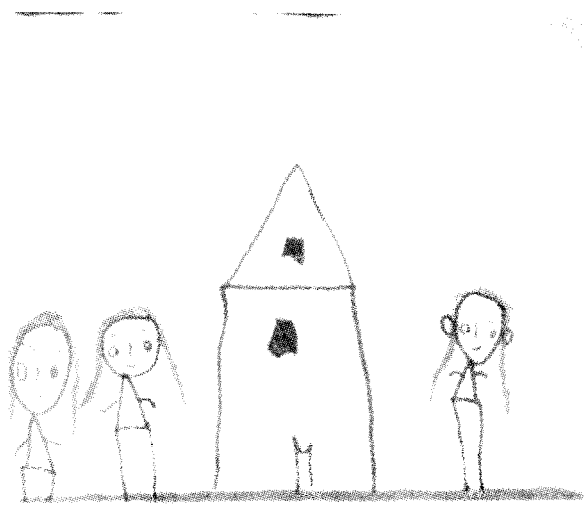
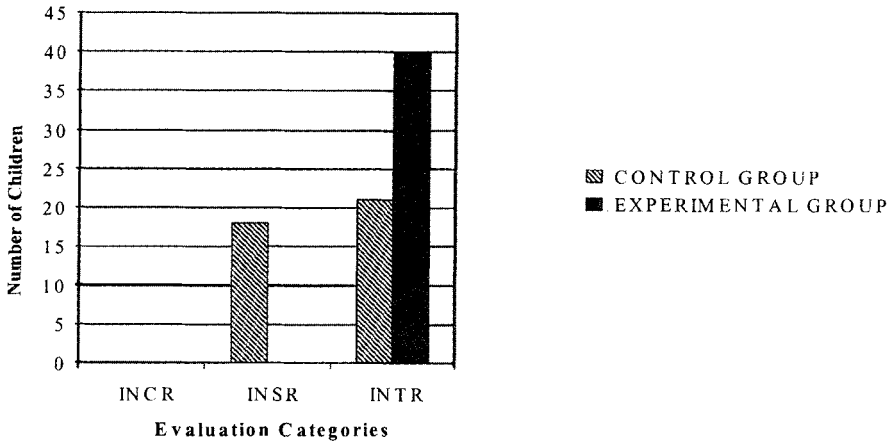


FIGURE 2

TABLE 3: Absolute and relative frequencies of the performance of preschoolers by evaluation category in drawing the “Landscape” after teaching

	Control Group	Experimental Group
INCR	0 (0%)	0 (0%)
INSR	18 (46%)	0 (0 %)
INTR	21 (54 %)	40 (100%)
TOTAL	39 (100%)	40 (100 %)



The conclusions show that, statistically, the children of the experimental group and the children of the control group do not have and do not use the same intellectual aptitude when they undergo the test of “landscape” drawing, despite the fact that they started off with approximately the same cognitive base. This conclusion is reinforced by the qualitative results that are described in the following paragraph. At this point, we will use representative drawings by the children in each stage and each group, in order to clearly show the differences in the artistic performance of the two groups.

a) *The “Insufficient Realism” Category (INSR)*

This category appears only among the children of the control group. These drawings either lack basic characteristics, which refer to the realistic artistic representation of a landscape, or the way that certain elements have been positioned in space indicates the absence of spatial relations among these elements. Usually, what is missing is the line or some other form that symbolises the earth.

An example of a representative drawing from the control group, which belongs to this category, is drawing 3 (Figure 3). The representation seen in this drawing constitutes a recognisable, but clearly insufficient form of a landscape. It is the drawing of a child that appears to be making the transition from the stage of insufficient realism to intellectual realism. We do not come across many such cases in this category.

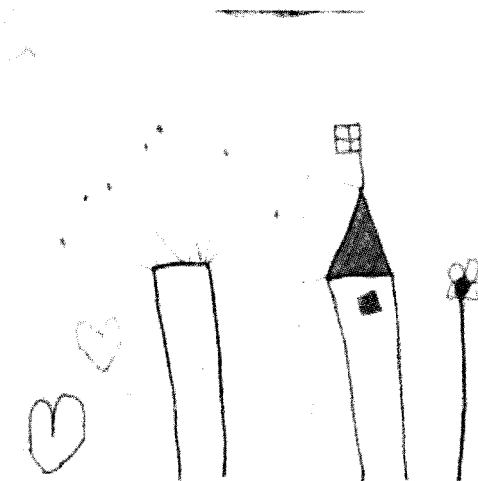


FIGURE 3

b) *The "Intellectual Realism" Category (INTR)*

The drawings of the two groups classified in this category show a clear relation among the elements that make up the landscape. Moreover, there seems to be a more composed perception of external space. It was observed that the preschoolers in the control group did not colour the form but only outline it, as in the INSR category. On the contrary, the preschoolers in the experimental group colour the entire surface of the primary level.

An example of a drawing from the control group, which belongs to the same category, is drawing 4 (Figure 4). It is characterised by a relative completeness and a separation of the various features of the landscape that renders the relation among them obvious. Of course, there is a lack of spatial perspective, i.e. the features have not been positioned in a way that takes into account the overall drawing or metrical proportions.

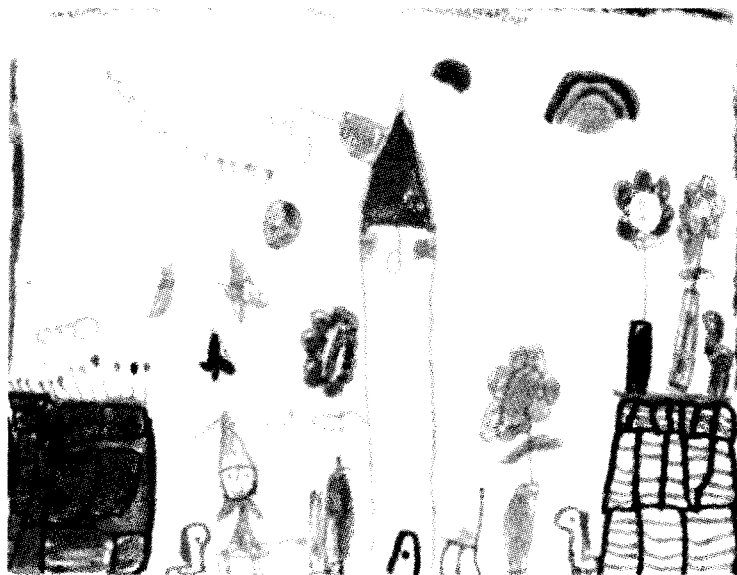


FIGURE 4

Regarding the experimental group, we will be presenting, as drawings representative of the INTR category, three drawings in which the children approach the thematic unit entitled "landscape" in a different way, though, as far as the actual drawing is concerned, they continue to apply the common artistic conceptual body of knowledge they have built during the teaching activities. These different examples presented here show, precisely, that this "guided" perception of teaching art in kindergarten does not necessarily lead to uniform artistic results. On the contrary, it *liberates the children's artistic abilities*, which are, thereafter, based on a broader and improved cognitive base, leading to a variety of artistic products.

The first example of a drawing from the experimental group, which comes under the INTR category, is drawing 5 (Figure 5). The representation depicted in this drawing constitutes a recognisable form. The features of the drawing are, again in this case, a relative completeness and the separation of the various elements of the landscape in a way that renders clear the relation among them. What should be noted here is the lack of proportion of the external space. We can observe that a large blue form, which goes all the way down to the form of the earth, renders the sky. We can also observe that all the forms of the features, which make up the landscape, are covered with shades of different colours. The entire composition has been coloured with the colour use technique of filling in.

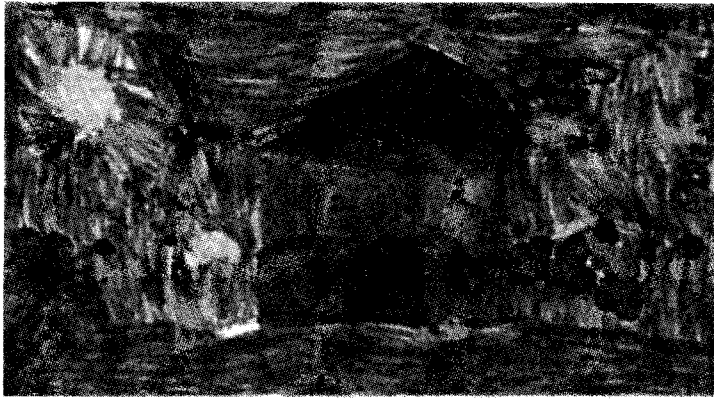


FIGURE 5

The second such example is drawing 6 (Figure 6). The representation, which appears in this drawing, too constitutes a recognisable form. The preschooler draws and colours the entire surface of the primary level with nine different shades. Here again we should note the absence of proportion of the external space, although it is not certain whether the large and the small forms symbolising the two trees are randomly positioned in space, or whether the preschooler has applied, in this specific case, various teaching elements (the trees which are further away appear smaller). The preschooler has used all four-colour use techniques presented during the teaching activities.



FIGURE 6

Finally, the third and last example of a drawing by the experimental group, which falls under the same category, is drawing 7 (Figure 7), where the sky has been covered by curves symbolising the rainbow.



FIGURE 7

Discussion

The previous results show that, as regards the “Landscape”, all the children belonging to the experimental group reach the intellectual realism stage immediately following the teaching activities, i.e., significant cognitive progress is made during the teaching. Thus, it appears that this specific teaching contributes to the cognitive development of specific children in the sector of children’s drawing. The approach of the intellectual realism stage is achieved sooner than the age period at which this would occur if no interventions took place in the children’s natural development.

Furthermore, if we take into account the common cognitive base of both the experimental and control group, then we can read this data as developmental data and reach the following conclusion. In the case of all three thematic units, greater cognitive progress has been achieved in the children of the experimental group as opposed to those of the control group, since more children in the experimental group have achieved the stage of intellectual realism. That means that the proposed teaching programme, which falls under the “guided” approach to the teaching of children’s drawing, has an advantage over the traditional teaching programme, which falls under the “natural” teaching approach to children’s drawing. These advantages appear to be summed up in the special structure and the appropriate conceptual content of the programme, as well as in the nature and the characteristics of the artistic and non-artistic activities that were applied during the programme.

Finally, we can observe that, following the application of the proposed teaching programme, the artistic results of the children in the experimental group are *improved* in relation to the artistic results of the children in the control group, which attended the traditional teaching programme. Following the teaching, the children in the experimental group, as well as many children of the control group, have reached the intellectual realism stage, attempting to draw what they know about the specific subject and not what they see. However, *their cognitive aptitude regarding the perception of space and the observing of the topological relations in space are so developed, that they are able to arrive at the specific, improved artistic result.* This improved artistic result is characterised by a better “synthetic attitude” (Luquet 1991). We observe, for example, few discontinuities, few disproportions, and increased control of transparency. We can also observe that the drawings of the children in the experimental group are not uniform. This is also true of the children in the control group. The difference lies in the unity of the synthetic attitude that exists behind the artistic result of the children in the experimental group. This means that the proposed

teaching programme leads to *qualitatively better* artistic results, compared to the programme currently in effect. In other words, we could speak of an “*improved intellectual realism*”, i.e. an improved cognitive and conceptual development of the children in the experimental group.

Conclusion

All this leads to the general conclusion that our research promotes the possibility of planning teaching interventions, by which, the child's thought regarding artistic subjects will become more complex and more effective. In other words, it will become more intelligent. And that can be achieved as early as the preschool age. The answer to the basic question which was posed at the beginning of this study, i.e. whether there is an art education method which is based on the child's free expression but which, at the same time, contributes to the improvement of the child's artistic aptitude in relation to what is considered the “natural” development of this aptitude, is, therefore, affirmative. Nevertheless, the systematic observation of children's activities and conceptions during the programme will allow us to describe and interpret the way in which children improve their drawing abilities and make cognitive progress. The next step for the completion of the present empirical study is a new research programme which demands an ethnographic approach.

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