The Differentiated Didactic Approach to Teaching the Arts (D.D.A.T.A.) in Special Education and Positive Psychology

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Abstract

The Differentiated Didactic Approach to Teaching the Arts (D.D.A.T.A) is a modern teaching approach in the field of Special Education. Its main goal is to teach in a differentiated manner Music and Dance to artistic ensembles such as an orchestra or dance group comprising mentally disabled members. It has been implemented and taken shape successfully within the framework of the clinical work carried out by Dr. Ioannis Makris on a sample of 100 individuals with mental disabilities during the period Oct 2012-Jan 2020. The main reason the D.D.A.T.A. model has been so successful does not rely solely on the differentiating teaching itself. It also hinges on being able to create the appropriate positive psychology for mentally disabled individuals with a view to empowering them to attend the training program suitable for them. The following were observed during the implementation of D.D.A.T.A.: the mental and physical health of the mentally disabled participants improved and was reinforced; their various strengths were further developed and honed; their ability to forge and/or sustain interpersonal relationships improved; and the personal goals they had set were accomplished. All of the areas in which improvement was observed constitute key goals of Positive Psychology. Thus, the goal of the present study is to examine how Positive Psychology relates to the D.D.A.T.A. model which is addressed to people with mental disabilities. The group under study is the Ichochroma (Timbre) Orchestra which was established by Dr. Ioannis Makris. Within the framework of inclusive didactics, the orchestra has successfully and harmoniously collaborated with both professional and amateur choirs at concerts and festivals.

Keywords

D.D.A.T.A, Differentiated Didactic Approach, Positive Psychology, Special Education, Teaching the Arts
1. Introduction

The task of creating a musical or dance ensemble by bringing together people with mental disabilities is a complex one (Macri & Makris, 2014a): the type and degree of each individual’s mental disability in conjunction with that individual’s inherent personality and skills either acquired or showing promise of development vary depending on the case (Macri & Makris, 2014b). As teachers, we are called upon to work with mentally disabled individuals who possess different abilities and skills, various degrees of readiness, a varied pace of work and learning, diverse learning profiles, not to mention that each learner with mental disabilities may have discrete interests from the other or possess different talents (Makris & Macri, 2003). Thus, if we wish to successfully group an artistic ensemble, such as an orchestra whose members are mentally disabled, we need to touch on a wide range of fields such as music, pedagogy, special education, psychology, and even administration, given that, for an orchestra to function effectively, apart from teaching and artistic interpretation considerations, we need to take into account an orchestra’s organizational aspects as well.

Those enormous gaps in Special Education are now addressed by D.D.A.T.A. The D.D.A.T.A. model took shape during the period Oct 2012-Jan 2020, within the framework of the clinical work of Dr. Ioannis Makris at “Ergastiri” (Makris, 2015a), a workshop stewarded by the Association of Parents and Guardians of Persons with Disabilities, Athens, Greece. The preliminary, empirical observations on 100 individuals with mental disabilities of over 67% enabled the formation of the Makris standards and methodology (Makris, 2015b). In turn, the Makris methodology generated a series of logical hypotheses which created the scientific premises of a broader theoretical framework whose confirmation is constantly renewed through successive empirical measurements. Moreover, the D.D.A.T.A. framework enables us to interpret and predict the appearance of various situations at the work level.

During implementation of the D.D.A.T.A. approach at “Ergastiri”, it was confirmed that the mood of all mentally disabled learners we were teaching improved. Despite the fact that our intervention was purely focused on teaching music for the purposes of Special Education, we observed that not only had our learners’ mood ameliorated but behavioral issues such as outbursts of anger and episodes stemming from stress had also decreased. The D.D.A.T.A. approach had helped them set a goal, bolstered their self-esteem, and gave their life meaning and purpose. It was then, after seven years of empirical observations and daily differentiated teaching interventions, that we deemed it appropriate to write the present article. We believe that it may prove the foundation for subsequent studies in the field of differentiated didactics in Special Education as well as in the field of psychology. The aim of our study is to present an overview of D.D.A.T.A. through earlier literature and, at the same time, link it to Positive Psychology.
2. The Differentiated Didactic Approach to Teaching the Arts (D.D.A.T.A)

The axes on which a teacher should move when applying the D.D.A.T.A. model (Makris, 2020) are:

1) Pinpointing the interests of each learner.
2) Pinpointing the degree of under-performance of a learner per field of skills.
3) Selecting the works to be taught.
4) Creating the appropriate psychological ambience and encouraging each learner accordingly.
5) Breaking the project down into factors.
6) Visualizing the factors.
7) Codifying the factors.
8) Determining the steps of the project.
9) Adjusting and differentiating the project to the level of each learner.
10) Demonstrating the way the tasks should be performed; the strategies involved; and modelizing.
11) Taking advantage of the positive potential per field of skills.
12) Helping learners develop their artistic perception and skills.
13) Ongoing, differentiated readjustment of goals, and ongoing evaluation.

3. Reference Points of the D.D.A.T.A. Model

The reference points of the D.D.A.T.A. model are:

a) Successful implementation of team work on music (orchestra) and dance (group choreography) leading to: 1) ambience of enthusiasm; 2) supportive climate on an individual basis; 3) clear perception by the mentally disabled individual of other members in the group; 4) crystal-clear goals that can be adjusted to individual needs; 5) clear-cut roles; 6) delegation of duties depending on individual abilities/skills; 7) coordinating people whose skills vary; 8) positive attitude towards learning; and 9) an increase in self-esteem and self-confidence.

b) Selection of the right repertory appropriately adjusted to the needs of learners with mental disabilities participating in an orchestra or dance ensemble.

c) Creation of a positive psychological climate and positive group psychology. Here, we observe the application of Seligman’s P.E.R.M.A. model across the board.

d) Appropriate motivation, with teachers taking well into account the fact that implementation of such motivation necessitates solid knowledge of the motivational theory as discussed in Apter’s Reversal Theory.

e) Centrally-controlled guidance of the learner group via the “Makris” Pedal Switch Visual Signal Generator that our team has constructed.

f) Appropriate analysis and codification of the parameters involving music, in the case of an orchestra, or involving choreographed movement, in the case of a dance group.

g) Collaboration with amateur and professional choirs within the framework of pedagogical inclusion.
4. Methodology

The D.D.A.T.A model was tested on 100 cases of people with mental disabilities of over 67%, at “Ergastiri”, a workshop stewarded by the Association of Parents and Guardians of Persons with Disabilities, Athens, Greece. The present study has been the product of our qualitative work on the issue for the past seven years, has always complied with the code governing professional ethics and has always addressed the mentally disabled with respect. All individuals in the sample were adults and over 20 years of age (52 males and 48 females). Our work, interventions, and subsequent research offer quality to a rather large sample of a special needs population that regards a great deal of different cases which have been officially diagnosed by the requisite state committees overseeing disability applications.

One of the key elements of our methodology relied on the systematic observation of rehearsals which functioned as sessions. Each rehearsal lasted for one hour if it involved a group session and for half an hour if it involved a one-on-one session. Whether sessions addressed a group or an individual, all sessions comprised the following stages: a) preparation of the psychological setting: first, we briefly greeted the group/individual. Next, learners who had verbal communications skills would tell us their news. Last, we explained thoroughly the steps that we would follow. Members who had no verbal communication skills were given the opportunity to answer to close-ended questions so that they may respond in a non-verbal manner. b) Rehearsal and implementation of D.D.A.T.A. c) End of session, discussion with the group or individual over the next rehearsal, and setting future goals. d) Recording of our empirical observations or of our discussions in the D.D.A.T.A. log.

At this point, it should be stressed that we would meet with our learners’ parents or guardians at least once within a six-month period. Those meetings gave us the opportunity to discuss with them how their children progressed. The outcomes of those meetings occupied a prominent place in our evaluations.

As already mentioned, due to our sample’s particularities and disparities, our research relied exclusively on empirical observation and on the log we maintained: As we can see in Figure 1, the group under our observation and study was the Ichochroma (Timbre) Orchestra, a group which became the medium that not only allowed us to collect data but also helped us standardize and establish the basic principles and axes of D.D.A.T.A.

Only 42% of the sample had any reading skills, while only 23% had any writing skills, and only 8% could communicate verbally. Moreover, learners with mental disability of 97% had no musical training whatsoever, and only 3% of our learners had taken music lessons from a tutor without, however, acquiring any basic musical skills. During our work with our special needs population, we also observed that our population’s behavioral issues and outbursts of anger had considerably decreased across the board. More importantly, the bonds between and among learners had become stronger and there were promising signs that the learners’ socialization skills also showed improvement.
As all twenty-five members of the Ichochroma Orchestra comprised a subgroup of the sample, they all were individuals with mental disabilities. The orchestra gave numerous concerts in the Athens area and throughout the countryside, in collaboration with amateur and professional choirs. In July 2019, the Ichochroma Orchestra performed at an international music festival, with the choir of the town hosting the event as we can see in Figure 2.

Three were the phases that someone had to undergo in order to become a member of the orchestra: the first phase entailed differentiated teaching on a one-to-one basis. The second one led the mentally disabled individual to joining a preparatory musical ensemble (inclusion ensemble). Last, the third phase would usher the member into the actual orchestra.

The differentiation we implement through D.D.A.T.A. functions at the pedagogical as well as the organizational level.

4.1. Differentiations at the Pedagogical Level

More specifically:

- Content and materials are both differentiated. We select the appropriate repertory for the specific group we are working with. Wherever and whenever necessary, we make changes in the musical instruments’ tonality and tuning such as the guitar and the ukulele (Makris, 2015a).

- The teaching process and activities are differentiated. By means of the “Makris” Pedal Switch Visual Signal Generator we can fine-tune the entire teaching process. At this point, our goal is not so much to teach music but the right use of a musical instrument in a specific setting (Makris, 2015b, 2017).

- We differentiate the results. There have been cases when we had to change a certain song’s introduction or rhythm for the sake of simplification.

4.2. Differentiations at the Organizational Level

More specifically:
We differentiate the environment, arranging it in such a way so as to be able to have effective rehearsals.

We differentiate the way learners sit during rehearsals so that they may all make visual contact with us but, most importantly, with the “Makris” Pedal Switch Visual Signal Generator Makris 2015a, b).

We differentiate the orchestra’s lineup depending on the stage offered at each venue where the Ichochroma Orchestra is to perform.

We differentiate the way learners work. We receive from each learner that which s/he is able to give and work on that. To that purpose, we provide a greater number of instruments per category of musical instrument (Makris & Mullet, 2003).

We differentiate the pace at which each learner performs her/his tasks, taking full advantage of what each learner is able to give. For example, our orchestra includes a hyperactive learner whose initial participation in the tasks set was of short duration. At present, our hyperactive learner participates in the rehearsals at the same pace as the rest of the learners (Mullet, Morales, Guadalupe, Makris et al., 2012).

We differentiate the classroom’s climate. Each learner is unique and when some of the learners are in need of more time, more time is what we dedicate to them.

We differentiate the elements that support each learner so that her/his performance improves.

5. The D.D.A.T.A. Model and Positive Psychology

Based on the above and on our empirical observations during the period Oct 2012-Jan 2020, we were able to draw a number of conclusions (Makris, 2019). Within the framework of the Ichochroma Orchestra, we observed that its mentally disabled members experienced a series of positive emotions which met the tenets and fundaments of Positive Psychology (Slavin et al., 2012). More specifically:
• Through their participation in the orchestra, orchestra members were energized and developed actual bonds as members of the same group who shared the same experiences (Makris & Mullet, 2009). Even more impressive was the fact that an overall climate of communication and socialization developed between the orchestra and the collaborating choirs. As a result, the Ichchroma musicians experienced a change in attitude and the emergence of a culture, both fundamental values of Positive Psychology.

• Orchestra members found a positive meaning in their life through accomplishing an art project and giving a good performance. We know that the eradication of mental illness flags the point “zero” for an individual who, from that point on, begins its journey towards flourishing. In any case, the pleasure and gratification of our musicians was evident in their faces and in their reactions during rehearsals and during the actual concert.

• By applying the D.D.A.T.A. model, we established art as a daily part of the orchestra members’ life. It gave them satisfying sense of accomplishing a goal and enjoying the recognition that such an accomplishment implies, and it all resulted in the orchestra members’ experiencing an increase in self-confidence and self-esteem.

• Orchestra members rehearsed and performed in a positive climate and a safe space. As a result, they all strived to accomplish and improve even more. In turn, other individuals with mental disabilities who were not members of the orchestra sought to enter the D.D.A.T.A. process so as to join the orchestra. Their desire to do so led to their intensifying their efforts and to their improving their work.

• Setting the goal of rehearsing for and performing during a concert are on their own a cause for the emergence and experience of positive feelings.

• Participation in the orchestra constitutes a goal that brings the lasting fulfillment associated with loftier goals and desires.

• For our mentally disabled musicians, participation in an orchestra elevates them to the third dimension of happiness (Seligman, 2002), in other words, “a life with meaning and purpose”.

During the application and phases of the D.D.A.T.A. process, the musicians, as individuals, and their orchestra, as a group, acquired a heightened profile, which was the outcome of such moral “components” as confidence, enthusiasm, sense of common purpose, mutual trust, respect, and more (Peterson et al., 2008). In brief, within the framework of the work carried out by the orchestra, we were able to create and cultivate among the orchestra’s members the following:

5.1. Confidence that the Group Can Perform Its Tasks and Accomplish Its Broader Goal

Initially, the prospect of giving a concert, sounded next to impossible. In fact, before we started work under the D.D.A.T.A. model, a number of our mentally
disabled orchestra members expressed their concern as to whether they could handle the task, whether they would be able to cooperate with a choir, and whether the concert would be successful (Makris, 2019). Our attitude on the matter and the steady rehearsals helped concerned members overcome their doubts.

5.2. Enthusiasm over the Activities and the Work Being Carried Out

All of our approach’s phases were characterized by the presence of enthusiasm. The reactions showing our musicians’ pleasure ranged from exclamations of joy and grunts of happiness to verbal phrases expressing satisfaction.

5.3. Optimism That More Successes Will Follow

On a daily basis, all orchestra members thought about and discussed their next concert, something that gave rise to an even greater sense of joy and happiness.

5.4. Belief in the Other Members’ Capability

Slowly but surely, our “musicians” began trusting not only their own individual talents but those of the other members’ as well. That was a dimension that we cultivated in our mentally disabled orchestra members gradually. It led to an increase in their consistency and sense of responsibility.

5.5. Resilience to Adversities and Challenges

Each new musical work that had to be rehearsed presented a new difficulty and, at the same time, a new challenge our musicians were called on to scale. Moreover, as every new concert and its organizational parameters were quite different from those of the previous one, the level of adversity rose since quite a few of the orchestra members are on the autism spectrum or present elements of autism.

5.6. Leadership Which Shows Respect for the Contribution Offered by Group Members, Encourages the Creation of a Nurturing Climate, and Fosters Harmonious Relationships

Through the D.D.A.T.A. process we stopped regarding our musicians as learners and treated them as colleagues. The respect we showed them gave them enormous pleasure.

5.7. Mutual Trust and Respect among Group Members

During rehearsals, we ensured that the prevalent climate was one that fostered mutual trust and respect. It was a difficult task for us since orchestra members had different kinds of mental disabilities.

5.8. Loyalty to the Group and Its Members

We firmly believe that this particular component played the decisive role in the success of the Ichchroma Orchestra.
5.9. Social Cohesion between and among Orchestra Members
The sense of cohesion that the orchestra members experienced between and among them increased through the rehearsals and the ensuing concerts.

5.10. A Common Purpose
The very fact of participating in an orchestra generated a common purpose among our musicians.

5.11. Devotion between and among Members by Means of Mutual Support and Care
Our orchestra members demonstrated the existence of this component at all levels of support and care.

5.12. Sacrifice of Individual Needs for the Good of the Group
There were times when, due to technical reasons, it was impossible to include all twenty-five orchestra members in the orchestra. Some of the members conceded their right to participation in the concert or part of the concert so that the orchestra may perform at its best.

5.13. A Group History That Comes with a Set of High Expectations
The orchestra’s reputation and quality of performance during concerts improved because, each time, the bar of expectations was set higher than before.

5.14. Concern for the Good Name of the Group and Concerted Effort to Maintain It
All of the group members were exceptionally proud they were participating in the orchestra whose history often necessitated that they set high expectations.

6. Conclusion
Our empirical observations on Special Education over the period of seven years lead us to the conclusion that an orchestra or a dance group nurtures the mental and socio-emotional development of people participating in such artistic ensembles and fosters a positive climate between and among group members. It also empowers personal growth and helps group members forge bonds between them. It encourages creative learning (Vilkeliene et al., 2017a, 2017b), pointing to the necessity for the replacement of passive learning by creative work that is independent, all the while cultivating the mentally disabled artists’ emotional intelligence, together with their self-confidence and the fulfillment of their social and emotional needs (Macri & Makris, 2014c). In the case of our orchestra, it was not uncommon for our mentally disabled learners’ parents themselves to stand in disbelief of the positive behavioral progress they could discern in their children. Those positive changes were particularly reinforced by means of the inclusion concerts in which we participated in collaboration with Greek state
schools, the Cap sur L’École Inclusive European Program as implemented at the Ilion Municipality, Attica, the Institutfrançais de Grèce, and the Pasteur Hellenic Institute.

Thus, it is evident that D.D.A.T.A. constitutes a powerful teaching tool when it comes to creating an artistic ensemble comprising mentally disabled individuals, as it also promotes a positive psychological climate for the mentally disabled who are thus given the opportunity to experience positive emotions on a daily basis. Within the works of the D.D.A.T.A. framework, participants find meaning and purpose in life, away from the marginalization that their mental disability has confined them to. With every day offering new challenges, their daily routine acquires a color other than that of drabness and they are encouraged to heighten their cognitive, emotional, kinetic, communication, and social strengths. More importantly, they become resilient in the face of adversity and deal far more effectively with stressful situations. At this point, the contribution of Positive Psychology is instrumental: Positive Psychology becomes the catalyst that bestows on the mentally disabled musicians’ experiences, strengths, and psychological resilience.

7. Discussion

The Differentiated Didactic Approach to Teaching the Arts (D.D.A.T.A) is a modern teaching approach in the field of Special Education. The present article is a preliminary probe and link between D.D.A.T.A. and Positive Psychology. The success of D.D.A.T.A. is corroborated by the concerts and accomplishments of the Ichochroma Orchestra whose members are all people with mental disabilities. It can be traced to the creation of positive emotions and positive psychology, and to the improvement and nurturing of the mental and physical health of the orchestra’s mentally disabled members who are encouraged to develop their various talents and virtues and accomplish the personal goals they have set. In conjunction with the group’s potential, Positive Psychology generates the encouragement the mentally disabled musicians need to develop their creativity through art and artistic expression.

a) Both D.D.A.T.A. and the link between Positive Psychology and D.D.A.T.A. are the results of a series of systematic empirical observations of a sample of 100 people with mental disabilities of over 67%. Our research may well be viewed as introductory. We are hopeful that it will become the springboard of a series of studies in Special Education and Psychology, through the establishment of the pedagogical and psychometric tools relevant to the issue. You can see our orchestra-related concerts online at:

[https://www.youtube.com/watch?v=aySLdV6hGnU](https://www.youtube.com/watch?v=aySLdV6hGnU),
[https://www.youtube.com/watch?v=uFI9QmcGlHU](https://www.youtube.com/watch?v=uFI9QmcGlHU).

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.
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