



MKLC Diploma in Education & Training

Achieve an inclusive art class with SEND students through differentiated instruction.

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January 2023



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1. INTRODUCTION

When we talk about art, the definition is usually very broad since it covers the way in which feelings, thoughts or ideas can be expressed. It is also the way in which as individuals we have a vision of the world, and this is configured in turn according to our cultural environment, with our capacities or through our limits.

Art is continuous learning that requires careful observation and that allows us through processes to develop different skills. Some develop capacities that transform them into artists, however, according to a UNESCO 2020 statement, "most benefit from art in all its diversity, because it is an essential component of a comprehensive education for the full development of the person. The skills, values, and behaviours that arts education promotes build resilience, foster appreciation of cultural diversity and freedom of expression, and cultivate innovation and critical thinking skills. As a vector of dialogue in the highest sense, art accelerates social inclusion and tolerance in our multicultural and connected societies."

To achieve inclusive art classes, it is also necessary to know how to make correct use of the differentiations, and these must be able to adapt to the needs of the students.

I have been teaching art for some time, and in recent years I have taught both art and Fashion Design vocational classes at a SEND (Special Educational Needs and Disabilities) school with KS4 and KS5 students from Year 11 to Year 14, Pathway 1 and 2, where the need for differentiation is daily.

Personally, I have encountered real challenges when preparing my artistic lessons. Also, unlike other subjects, arts education is based on processes that require a variety of materials and resources that challenge the individual needs of my students.

To consider the learning styles of my students, I have based myself on the VARK learning models. The VARK model (Visual, Aural, Read/write & Kinesthetics) was designed by Neil Fleming in 1987. This model is based on 4 modalities to help students with their training preferences. VARK styles have guided me in the choice of my lessons, however when you are faced with SEND students with very different needs in the same group it can create conflicts and limit the good development of the lessons.

At times, building my art lessons around the curriculum was a bit frustrating because the art processes were not a good fit for all students. This led me to ask questions like the following:

- How can I do to carry out a task that has artistic processes where resources such as glue, water or paint are required for students with sensory needs?
- Certain students tend to avoid some colours because they find them irritating and prefer other tones, how can I diversify the tasks and better adapt them to their needs? How can I prepare adapted lessons for students with fine motor difficulties, when developing tasks that require it?
- Could light or weather conditions really influence the behaviour of my students? If so, it is:
- What alternatives do I have to be able to handle situations when my students have behaviour difficulties or lack of concentration?

2. ABOUT ACTION RESEARCH

The term "action research" was initially coined by Kurt Lewin, who developed the action research model in the mid-1940s to describe a process of inquiry and investigation that occurs when action is taken to solve a problem.

The term "action" refers to the possibility of doing something, that is, to a change that is trying to be created (Cambridge Dictionary 2023), and "research" is an intellectual and experimental process that includes a set of methods applied in a systematic way, with the purpose of to inquire about a matter, that is, a detailed study of a subject, especially to discover (new) information or reach a (new) understanding. In this case referring to a better understanding of the learning environment (Cambridge Dictionary 2019).

Action research in education is a strategy used to create an inquiry project. This process of self-reflective inquiry gives me the opportunity to identify a problem or an area of interest to develop within my own area of specialization, to evaluate the effectiveness of my teaching and how it reflects on the learning of my students. Once the problem or area of interest is identified, I must consider it and find a solution. As can be seen in figure 1, this is a cyclical process with four interrelated stages: Observe, Plan, Act and Reflect.



Figure 1. The Action Research Cycle and stages by Erika Lopez Franco

AR (Action Research) is a cyclical process of change and is connected in its model of change:

The way in which the quality of the practice itself is evaluated (Observation).

The period of awareness of the problem and the initiation of an investigation (Planning).

Verification of the stage of change where new forms of behaviour (Action) are tested.

Use of the research result to ensure change and improvement (Reflection).

2.1 Benefits of action research

What are the benefits of action research for me? The use of action research can allow me to involve my students in the curricular process, it can give me guidelines on how I can benefit in the future by using the appropriate differentiations in the art classroom, and it can help me to create an inclusive and trusting environment. It will also allow me to find the reinforcement points, measure them and correct them. I could improve the learning of my students and consequently better results will be obtained. By doing surveys I will have the opportunity to consult with other professionals and benefit from their experiences. With respect to the students, using questionnaires will open a dialogue and a deeper understanding of their point of view. In addition, action research can provide me with qualitative data that I can use to adjust the content, delivery, and instructional practices of my curriculum to improve student learning. I will finally be able to feel confident in the way I will deliver my lessons.

3. METHODOLOGY

Among the different methods that we can use for Action Research can include observations, diaries, notes, questionnaires, interviews, photographs, audio and/or video recording. According to studies by Creswell, 2013, these data can be collected in quantitative, qualitative or both ways to complement each other.

Difference between quantitative and qualitative data	
Quantitative data	Qualitative data
Number based. Countable or measurable Use statistical analysis. Use surveys / interviews. Use observations / experiments. Immediate results	Text based. Descriptive Open to interpretation Use surveys / interviews. Write documents. Dynamic and subjective

Quantitative data refers to information that can be quantified. This can be counted or measured and can be given a numerical value. Quantitative data is more structured in nature and is suitable for statistical analysis.

Quantitative data is relatively quick and easy to collect, is less susceptible to bias, that is, it is reliable and without risk of error or misinterpretation. In addition, they are objective data. On the other hand, the disadvantage of quantitative data is that they lack context, that is, one must dig deeper to obtain information beyond the numbers.

Qualitative data is important because it allows us to form parameters through which larger data sets can be observed, so that they can be measured.

This type of data refers to the emotions or perceptions of people and what they feel and can be documented. It is a way to understand and address problems.

The disadvantages are that this data is time consuming to collect, the results are difficult to generalize, it is descriptive data, and it is more difficult to analyse than quantitative data.

Using a mix of qualitative and quantitative data can improve my assessment while ensuring that the limitations of one type of data are balanced against the strengths of another. In addition, by being able to integrate different forms of knowledge, the understanding will be clearer. Indeed, for the data collection of this research-action I will base myself on both methods, since they allow me to have crossed results that will help me to evaluate both facts and statistics. Consequently, thanks to this data, I will be able to weigh all the information involved and reach clear conclusions that will help me grow professionally.

Data analysis and method evaluation

The data analysis process in action research involves collecting data on the identified problem, analysing the data to identify patterns and trends, and using the findings to develop solutions or interventions to improve the situation.

To achieve this, in my action research I have used cross-methodologies of quantitative and qualitative data, since in this way I have ensured that the data was estimable, real and reliable. I have designed an interview questionnaire for a professor who teaches art. This allowed me to go deeper into the argument of my project, verify if the same issues were also being faced by another professional who directed my same specialty, and how they were resolved.

I have also developed a questionnaire in the form of a quiz for other professionals, some of these questions allowed me to quantify the data and calculate percentages that I could support with graphs. This method was interesting because it allowed me to immediately visualize some of my doubts that were later transformed into accounting and true data, that is, they were not based on an assumption.

In addition, I have created three different types of quizzes for pathway 1 and 2 students. These quizzes were made up of simple and easy-to-understand questions, and in turn adapted with appropriate differentiation to different learning levels. In a questionnaire I asked questions for the student to express her opinion, in the second questionnaire the students could view images and circle preferences, in addition to having voting options. Another quiz was with choice responses, created in Imprint 3, for students with reading difficulties. Although one questionnaire contained qualitative questions, in all cases they contained questions that I could easily transform into graphs to obtain percentages and measurable results. Being able to collect information through different methods allowed me to have a clear image of the entire project and, in turn, obtain a general evaluation that I could easily connect with my research to reach conclusions and set improvement goals.

Identify the data collected: To collect this data I have used a survey and interviews.

Collect the data: I have collected the data in a systematic and organized way. Making sure that the data was valid and reliable.

Data organization: To achieve this I have categorized the data, classifying them into groups. (Please see graphics in pages 17-18, 20-21)

Data analysis: I have examined the data in the form of descriptive statistics, correlation analysis, regression analysis, and content analysis. (Please see page questionnaires 14-16, 19 and appendices)

Interpret the findings: I have looked at the data in the context of the problem being investigated and was able to identify possible causes and solutions.

Development of action plans: Based on the findings, develop action plans that address the problem being investigated. (Please see Conclusions on page 24-26)

Implement and evaluate action plans: This involves monitoring and measuring progress, and making the necessary adjustments, to achieve this I will put into practice the action plans that I have drawn up.

In conclusion, the data analysis of this action research involved collecting, organizing, analysing, interpreting, and using data to inform decision-making and develop action plans that improve the problems raised.

Ethical considerations

To create my Action research, I had to consider several aspects, including the consent of both my organization and those involved, such as the professionals of my organization and the students.

The form of data collection from staff and students is based on the form of surveys. They were informed that this questionnaire was voluntary, completely anonymous and that the personal information collected would not be shared in the project. (Please see in the appendix on page 36).

By considering the variety of abilities and needs of the students interviewed, I have created questionnaires adapted to the different ways of learning of the students. (Please see in the appendix on pages 33 to 35).

Several teachers were asked to voluntarily complete an online quiz with questions addressed to them as professionals and were assured that no personal data would be disclosed. In addition, they asked their students to complete the questionnaire. Although many students were unable to accurately understand the project, it still required their consent for them to complete the questionnaire.

Gantt chart: a chart in which a series of horizontal lines shows the amount of work done or production completed in certain periods of time in relation to the amount planned for those periods. *(By Oxford Dictionaries)*

Below is a Gantt chart that depicts the road map for this project.

Action Research Timescale								
Activity	16 th Nov	25 th Nov	1 st Dec	20 th Dec	10 th Jan	18 th Jan	5 th Feb	20 th Feb
Project Submission								
Develop Research Plan								
Methodology								
Influence								
Review of Literature								
Data Collection								
Result								

Conclusion								
Reflection on Action Research								
Final Presentation								

4. INFLUENCES

According to the Oxford dictionary, the word influence refers to the effect that somebody/something has on the way a person thinks or behaves or on the way that something works or develops. Indeed, when considering the questions on page 3 that have a direct connection to how to achieve an inclusive art class through differentiation, I must investigate whether my doubts are supported by studies or research. Some examples of this research are found in the box below.

Influence	Content
<p>Heat and Learning</p> <p>Goodman, J., Hurwitz, M., Park, J. and Smith, J. (2018). Heat and Learning. [online] papers.ssrn.com. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3180724 [Accessed 13 Jan. 2023].</p>	<p>Cumulative heat exposure inhibits cognitive skill development, and that school air conditioning can mitigate this effect.... Without air conditioning, each 1°F increase in school year temperature reduces the amount learned that year by one percent.</p>
<p>Do the shorter days of winter really make us depressed?</p> <p>Greater Good. (n.d.). Do the shorter days of winter really make us depressed? [online] Available at: https://greatergood.berkeley.edu/article/item/days_of_winter_make_us_depressed</p>	<p>In 1984, a team of scientists at the National Institute of Mental Health published the first criteria for diagnosing a unique condition called Seasonal Affective Disorder, or SAD. The people they diagnosed with SAD experienced major depressive episodes during the fall and winter months. Those episodes went away in the spring and summer, then returned the next fall and winter... The theory for SAD is that fall/winter darkness depletes the brain’s stores of serotonin by making the pineal gland convert too much of it into sleep-inducing melatonin.</p>

	<p>... it does seem likely that we are exquisitely sensitive to changes that come with the seasons, and that for some, these changes can trigger episodes of depression.</p>
<p>Overview - Seasonal affective disorder (SAD)</p> <p>NHS (2021). Overview - Seasonal affective disorder (SAD). [online] nhs.uk. Available at: https://www.nhs.uk/mental-health/conditions/seasonal-affective-disorder-sad/overview/.</p>	<p>The exact cause of SAD (Seasonal Affective Disorder) is not fully understood, but it's often linked to reduced exposure to sunlight during the shorter autumn and winter days. The main theory is that a lack of sunlight might stop a part of the brain called the hypothalamus working properly. It's also possible that some people are more vulnerable to SAD as a result of their genes, as some cases appear to run in families. Symptoms of SAD can include: a persistent low mood, a loss of pleasure or interest in normal everyday activities, irritability, sleeping for longer than normal and finding it hard to get up in the morning, difficulty concentrating, among others.</p>
<p>Shorter days affect the mood of millions of Americans – a nutritional neuroscientist offers tips on how to avoid the winter blues.</p> <p>Begdache, L. (n.d.). Shorter days affect the mood of millions of Americans – a nutritional neuroscientist offers tips on how to avoid the winter blues. [online] The Conversation. Available at: https://theconversation.com/shorter-days-affect-the-mood-of-millions-of-americans-a-nutritional-neuroscientist-offers-tips-on-how-to-avoid-the-winter-blues-194417 [Accessed 13 Jan. 2023].</p>	<p>When our brain receives signals of limited daylight, it releases the hormone melatonin to support sleep—even though we still have hours left before the typical bedtime. This can then affect how much energy we have, and when and how much we eat. It can also alter the brain’s ability to adapt to changes in environment. This process, called neuronal plasticity, involves the growth and organization of neural networks. This is crucial for brain repair, maintenance, and overall function.</p>
<p>How Red, Blue, and Green are Affectively Judged</p> <p>Briki, W. and Hue, O. (2016). How Red, Blue, and Green are Affectively Judged. <i>Applied Cognitive Psychology</i>, 30(2), pp.301–304. doi:10.1002/acp.3206.</p>	<p>... Results showed that (a) red was strongly associated with dominance and arousal; (b) blue was moderately and slightly associated with dominance and arousal, respectively; (c) green was slightly associated with arousal; and (d) blue and green were slightly more pleasurable than red. These results provide initial insights into how people perceive</p>

	<p>colours through the notions of dominance, arousal, and pleasure.</p>
<p>Psychology of colour: How colour impact feelings about art</p> <p>Sybaris Collection. (2017). Psychology of Color: How Color Impacts Feelings about Art. [online] Available at: https://www.sybariscollection.com/psychology-color-color-impacts-feelings-art/.</p>	<p>Early 1900’s, Picasso sank into depression. Painted figures in blues to enhance sadness. Van Gogh’s painting about agricultural workers, “The Potato Eaters”, in browns & greens, draws focus on their connection to the earth. Klimt’s painting of a serene lake exemplifies the peacefulness of nature in hues of green.</p>
<p>How to Deal with Sensory Overload as a Sensitive Person</p> <p>Greater Good. (n.d.). How to Deal with Sensory Overload as a Sensitive Person. [online] Available at: https://greatergood.berkeley.edu/article/item/how_to_deal_with_sensory_overload_as_a_sensitive_person.</p>	<p>Sensitivity implies a certain heightened reaction to external stimuli: experiences, noise, chatter, others' emotional expression, sound, light, or other environmental changes.</p> <p>Elaine Aron's use of the term "high sensitivity" in her 1997 book <i>The Highly Sensitive Person</i> refers to a depth of processing of external information—a person with sensory processing sensitivity (SPS), also called HSP. For someone with Asperger's, sensitivity might imply a sense of being overwhelmed when overstimulated. And for someone with ADHD, it's common to feel overwhelmed by emotions and to have trouble regulating them. For the person with sensory processing disorder (SPD), certain smells or textures heighten their reactions. And for the person with synaesthesia (a synesthete), the presence of suffering or strong emotions in others can overwhelm them, an aspect of synaesthesia called “mirror touch.”</p> <p>It is interesting to note that all five of these neurological differences—HSP, ADHD, autism, SPD, and synaesthesia—often imply some version of “melting down” emotionally. As many studies suggest, adult tantrums, quick-appearing migraines, or outbursts of anger are often the result of sensory overload.</p>
<p>4 Ways to Differentiate in the Art Classroom</p>	<p>When planning your lessons, keep in mind the visible needs of your students and the less expected challenges students have in</p>

<p>Taylor, J. (2021). 4 Ways to Differentiate in the Art Classroom. [online] The Art of Education University. Available at: https://theartofeducation.edu/2021/04/16/4-ways-to-differentiate-in-the-art-classroom/.</p>	<p>learning and creating. From fine motor skills, abstract thinking, and emotional readiness, providing options will inherently differentiate your lessons. Scaffolding with choice provides opportunities for students to learn wherever they are to achieve personal success. This is not to say that you shouldn't challenge your students to get out of their comfort zone and grow. There is a clear difference between empowering a student and supporting her learning.</p>
<p>9 Tips to Integrate Artists with Disabilities and 7 Artists to Share</p> <p>The Art of Education University. (2022). 9 Tips to Integrate Artists with Disabilities and 7 Artists to Share. [online] Available at: https://theartofeducation.edu/2022/10/28/oct-9-tips-to-integrate-artists-with-disabilities-and-7-artists-to-share/.</p>	<p>... Disability: "Any condition of the body [physical] or mind [cognitive] that makes it more difficult for the person with the condition to do certain activities and interact with the world around them."</p> <p>... Bringing artists with disabilities into lesson plans can be another window of human diversity to expose our students to new perspectives and experiences. This exposure can create deeper connections within an artwork or process. This larger awareness can also develop empathy and make our students more curious learners. It can also widen our own "understandings of human variation and differences." Artists with disabilities can be a mirror for students who have a disability and remind them they belong in the art room.</p> <p>Michelangelo had limited mobility in his hands and feet.</p> <p>Henri Matisse adapted from painting to paper cut-outs after moving to a wheelchair.</p> <p>Vincent van Gogh had epilepsy and bipolar disorder.</p> <p>Paul Klee had scleroderma and other health issues that resulted in physical disabilities.</p> <p>Francisco Goya had neurological troubles and eventually lost his hearing.</p> <p>Claude Monet was visually impaired.</p> <p>Toulouse Lautrec was short in stature.</p> <p>Edvard Munch had schizophrenia.</p> <p>John Behnke bases his fluorescent acrylic paintings on real places that are altered from his memory or dreams.</p>

	<p>Brooke Lanier has retinal detachment, but it doesn't stop her from painting exquisite waterscapes.</p> <p>Stephen Wiltshire is a British architectural artist with autism and is mute. He draws incredibly detailed cityscapes from memory...</p>
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5. LITERATURE REVIEW

According to the WHO (World Health Organization) it is estimated that 1.3 billion people, or 1 in 6 people worldwide, experience a significant form of disability. People with disabilities also face exclusion from education and employment. Indeed, one of the main challenges we face as a society is the comprehensive inclusion and development of these people. As a teacher I am concerned about being able to contribute equitably to an inclusive environment, and one of the means I must achieve this is differentiation in class.

Gardner (1983) clarifies the view that students have diverse types of minds and cognitive strengths and therefore use varied practices to learn, remember, understand, and act. This can be achieved through arts education, as it is a medium that encourages and supports teaching techniques and strategies that are tailored to each student's unique way of accessing the curriculum, processing information, and demonstrating understanding.

Birren F. (2006). *Color psychology and color therapy: a factual study of the influence of color on human life.*

Birren has done many instructive studies on colour perception and how it influences artworks, environments, the cultural milieu, and our emotions. Her work of hers has a strong focus on linking how humans perceive colours and how it makes them react. He is based on studies of doctors, scientists, psychoanalysts who focus on the psychology of colour. He claims that if a person prefers warmer colours, he is likely to be more aware of his social background. On the other hand, those who prefer cooler colours may have a hard time adjusting to new surroundings and situations. Birren also states that people with "nervous and mental disorders are greatly affected and responsive to colour". Therefore, the colour becomes much more significant for them and affects them in a completely different way than those who do not have such neurological disorders.

This book was edited several times and has been used as the basis for many studies on colours. Beyond medicine or neurology, clarity, this book can help me better understand the impact that colours have on my students and the emotions they entail, in this way I can better understand the preferences of my learners and consequently evaluate the appropriate differentiations according to their needs.

Conklin W. (2009). *Differentiation Strategies for Language Arts.*

This book provides me with various ideas on how to create differentiated lessons, it helps me to have an overview of the comprehension and the processes to prepare my lessons adapting them to the different levels of learning. The book includes differentiated tasks at different levels with graphs, questions, problem-based learning, and investigations, etc. It also contains digital resources. Although the book is not suitable for all stages, the examples found about the differentiation methodology open a window to be able to be adapted to other stages.

Ferris Richardson J. (2022). *Art as a Language for Autism: Building Effective Therapeutic Relationships with Children and Adolescents*.

This book takes a playful and integrative approach that is based on an awareness of the individual sensory profiles and developmental needs of children and adolescents with autism. In addition, it is designed to explore through art and play with some more specific tools for therapeutic work, through strategies that could help students find expressive languages that fully support communication, expression, and empathic understanding. Although the information is more focused for therapists, this book could certainly help me interact more effectively with the individual developmental and sensory needs of children and adolescents on the autism spectrum.

The Art of Education University, web article (2015). *Why Your Students are Overstimulated in Art, and How to Fix It*.

This article presents a sensory map of an art room, thought of the 5 senses, and evaluates the cause of sensory overload in some students. These ideas are very useful, as being aware of sensory overload issues can help SEND students, but also all students in general, have an enjoyable learning experience.

Thinking about how the colours or objects in an art classroom can have an impact on my students helps me achieve an inclusive environment and achieve differentiation from the first moment students enter the classroom.

Through the net I have found interesting information about the influence that colours, light, sounds, and atmospheric elements have on learning. However, I have had some difficulty finding a variety of specific sources that speak directly to practical examples of "differentiation in the art room" and how this can be adapted for students with special needs. For example, according to studies by Wexner (1954) an association between certain colours and moods has a significant effect. A strong relationship was shown between red and exciting/stimulating, blue and safe/comfortable, orange, and distressed/disturbing/annoying and black and dejected/dejected and powerful, but it is not very clear how to manage this knowledge to adapt to the classes of art with students sensitive to these colours. Also, I have noticed that there are few practical examples looking at differentiation with respect to resources and materials, as most of the information is generalized to differentiation styles and parameters based on various studies on learning styles (Lawrence-Brown, 2004; Tuttle, 2000) within the classroom, but not specifically in arts education. Although there is talk of the differentiated classroom that balances the learning needs common to all students, with specific needs for individual students (Tomlinson, 2001a) or differentiation that can offer equal opportunities to perform at their best (Tomlinson, 2003); sometimes the argument revolves around sensory experiences and not specifically how differentiation could be handled inclusively in art. All these studies are

undoubtedly very valuable, however as an art teacher I feel that I am facing a slightly different challenge, since my subject is not based solely on calculations, formulas, readings, or theories, but on processes and practical activities, which entail the need to use different physical materials. Furthermore, this data shows me that there is still a need for improvement for inclusive differentiation in the art classroom.

To feel confident in the development of my subject, I need to create strategies that can improve my teaching. For example, I would like to know if other teachers have noticed how the influence of colours, sounds or weather conditions have interfered in their teaching, and consequently, how the differentiations could be adjusted in a practical way. Thus, being able to deepen this topic will allow me to have a broader vision of how to connect the learning ways of my SEND students with their specific needs, and it could also help me better plan my lessons with resources and physical materials that adapt to other demands, such as kinesthetics or fine motor skills.

6. DATA COLLECTIONS

Data collection: It is a compilation of relevant information or informed observations and analysis. Data collection drives strategic and tactical decisions. (Oxford Reference)

At the beginning of this process, I thought about how to get accurate data and reflected on the tipping point between the measurable and the non-measurable, that is, the possibility of finding grey areas. For this reason, in addition to doing my personal research, and reaching a conclusion from my own point of view, it was essential for me to be able to evaluate if other professionals have encountered the same challenges, or to put it this way, some "grey" areas where I can improve. But also, I was wondering how students would directly respond to some of the challenges they encounter in learning.

To find out more about it, I did an interview with an art teacher, devised a specific questionnaire for teachers and, 3 questionnaires for students. The teacher questionnaire covers 13 professionals who teach in different specializations and includes students from pathway 1 and 2. The student questionnaires include 30 students from KS3, KS4 and KS5 from pathway 1 and 2. These questionnaires are designed according to the form of learning and level of SEND students across the school (please, see the appendices).

6.1 Teacher interview

Interview with a SEND teacher who regularly includes art in his lessons:

E. T.

Post 16 SEN Teacher

London

1) What is your teaching subject?

My specialisation is English philologist and, I teach general subjects to KS4 and KS5 students.

2) Can you give some examples of what you do to prepare inclusive lessons through art resources?

I allow my students to create and express themselves through their own art choices. I offer my students options for self-expression through painting, sculpture, graffiti, photography, or

drawing; I also prepare collaborative art projects, which allow students to exchange ideas and knowledge based on their experiences, culture, and tastes.

3) What do you find challenging when you think about differentiation in the art classroom?

Well, the differentiation in the art classroom is a little different than in other subjects in that it is more based on how the students achieve the processes and what medium they use to create them. I try that my students make their own decisions so that they can discover the styles that best suit their personal tastes.

4) Do you think differentiation interferes with inclusion?

On some occasions it may seem so when you have students with learning limitations. I can't always include them in the same group, but for example, I try to give them alternative materials so they can choose what they feel more comfortable with.

5) Can you easily adapt the differentiations to the art curriculum, or do you find it challenging?

I adapt it quite well, although it can seem limiting at times.

6) How do you organize your lessons with students who have fine motor difficulties?

Personalized support is given when necessary. I use art forms that best suit individual needs, such as abstract art, digital art, or clay. I allow the student to explore materials.

7) If you notice that a student does not show interest in the lesson, what do you do?

I evaluate my teaching, I create alternatives, I investigate if it depends on a particular situation or an emotional state, etc.

8) Do you think that the weather, the heat, or the cold influence in some way the learning of your students? Can you share a brief experience?

If this happens often. Sometimes the students are listless and feel melancholy. On one occasion I prepared a game with dice where the students had to draw and paint a landscape passing it every 3 minutes to their partner so that they could continue the work. The result was positive, and they had fun.

9) Have you found if the effect of light has any impact on your students? Can you tell a brief experience?

Cloudy days affect the perception of light. I need to add lights, or sometimes I use digital art as an alternative. I don't have a specific experience.

10) Do your students have any difficulty or preference in the choice of colours? Can you give an example?

If often, in some cases they avoid images with shades of grey and brown.

11) Do you group your students by learning level or by learning styles?

Well, both ways.

12) What is the difference for you, between differentiating a lesson or not doing it?

Differentiating a lesson is thinking about the individual needs of the student, being interested in learning it, giving them the opportunity to express themselves in the way that best suits them. It is also giving them the opportunity to discover their own style and to feel integrated. Without differentiation, students can still experience art, but if I don't think about individual needs, maybe I don't give them the opportunity to feel fully included or identified with some form of art.

6.2 Surveys and charts for teachers

Some relevant arguments for this action research are dealt with in the following questionnaires designed for teachers. These are directed towards the impact of the environment that surrounds us, on teaching and, in some cases, how issues are resolved. Specific issues about differentiation in art and how these are resolved are also addressed. Consequently, I have added a couple of questions that allow me to create reflections on our practice as teachers based on the experiences of other professionals, and how these could contribute to the objective of my action research.

For example, in question 4 for teachers: *"Imagine that you need to prepare an art poster, what kind of differentiation would you use?"*. Through this question we try to find out how the teacher could find challenges in adapting a single resource for all students and their different learning styles. That, in addition, this resource should be able to adapt to inclusive learning. The example of making an art poster could perhaps identify another challenge that would derive from adapting the material so that it is also inclusive in the cultural sphere.

Question 6 for teachers: *"If you were to create a piece of art, what season of the year would it be set in and what colours would you choose?"* It is a matter of personal taste, but in this way, I try to understand and demonstrate how we are all exposed to the impact that colours produce and how they can influence our emotions. Also, I can understand how colour choices connect to feelings of welcome or happiness. On the other hand, with this question I try to verify if the different seasons of the year influence our state of mind. The answer to these questions could also be a point of reflection that helps us as teachers to understand how our learning could be conditioned by the environment that surrounds us.

Surveys

1) What is your subject of specialization, and in what year or what pathway are your students on?

M. Humanities/ 10 pupils Pathway 2 Year 10,11

M. History/ About 20 Pathway 1 and 2

M. 9 pupils Years 10 and 11 tutor Pathway 1

R. Class teacher/ 7 students, year 10 and year 11. Pathway 1

L. Class teacher/ 7 students, in years 7 and 8 in pathway 1

S. English/ 9 to 12, pathway 2

A. Art/ Vocational Education Teacher / year 11 and 12, pathway 1

P. Maths and careers/ ks5 7 / maths 7

- S. Class teacher/ 9 students, KS5, Pathway 1
- H. English and Humanities/ About 27, years 10 to 12, pathway 1 and 2
- W. English/ KS5 7 / maths 7
- M. Vocational Education Teacher/ 9 students, KS5, Pathway 1
- M. Core subjects/ 9 to 12 Pathway ½

2) If you prepared an art lesson, what differentiation did you use?

- M. Drawing and colouring/ this suits all my students.
- M. We have made collage/I adapt the materials according to the different needs.
- M. 1 to 1 support
- R. Provide alternatives: different support resources.
- L. I group students according to their needs.
- S. Support is given to show and help them.
- A. Students are allowed to explore different materials and 1 to 1 support is provided when needed.
- P. My students use digital media that are well suited to their needs.
- S. Generally my students draw and colour. It adapts well to the needs of my students.
- H. I choose the right equipment: pencils and other materials, as needed.
- W. Tailored Resources and M.1:1 Support
- M. Support 1 to 1
- M. Specialized equipment when necessary / Simple tasks such as colouring.

3) If you encounter difficulties regarding the light, what do you do to solve it?

- M. Open window
- M. Make the room brighter, depending on the activity.
- M. I adjust light according to their sensory needs.
- R. Trying to modify the environment as much as possible.
- L. Adjust the blinds in the classroom and the lights inside the classroom.
- S. Add/reduce light by turning on the lights or pulling down the blinds.
- A. Yes, if I have extra lights available, I use them so that the good lighting makes up for the grey exterior. But, when necessary, under the lights and I adapt the lighting to create a relaxing environment.
- P. Create space - open windows.
- S. Lights off or relaxing dark area.
- H. Give the learners individual light.
- W. Get outside, breathe deep.
- M. Close the blinds.
- M. Some students are sensitive to bright lights, so I dim them. It also creates a calmer atmosphere when the lights are not so bright in the classroom, and they prefer the room darker when it is sensory time.

4) Imagine that you need to prepare an art poster, what kind of differentiation would you use?

- M. Draw the shapes for the less able.
- M. Differentiation would be in their level of support and instructions.
- M. Colours, paint, light, and other sensory resources.
- R. I would use different fonts and sizes of fonts. simple sentences for some of my students and more complex in other cases. I could use in print for some of them, and plenty of visuals. I would keep it simple for the lower abilities.

- L. Some pupils would need any writing printed in Communicate in Print, whereas others could write on the poster themselves. Some would also need things pre-cut as they can't cut independently.
- S. Different resources such as paint/felt tips or even computers for some. Different outcomes.
- A. Imprint 3, images, bright colours, etc. It will always depend on the skills of my students.
- P. Text, images, software used.
- S. Different key words for same topic to create different poster.
- H. Task and material to suit ability.
- W. Blanks Level questions differentiation to explain and instruct about the task/colouring and cutting with varying levels of support/ some students could mix colours and discuss primary ones.
- M. Stick and glue, painting
- M. Some pupils will cut and paste printed images onto a paper (depending on ability, they can either stick onto a template already created for them or choose where to place them themselves) those who can write can add some text onto their poster, others can draw. Those how more difficulty with motor skills can use a computer/iPad to complete the task.

5) If you prepare a craft project, how would you include students with difficulties in fine motor skills?

- M. Yes, help them with the tasks that require fine motor skills.
- M. Cut out work already and they can stick, holding hand to paint or use soft materials in the art project to meet the different sensory needs.
- M. 1:1 support
- R. I would adapt the material to them, some cannot use scissors, so maybe I would add some extra activities to that project that required less precision, e.g.: colouring.
- L. Have resources pre-cut and pre-glued.
- S. More support to show and help them.
- A. One to one support is given.
- P. Provide alternative - different support resources.
- S. I haven't done any craft project so far.
- H. By choosing the right equipment's- pencils etc.
- W. Hand over hand, adapted resources (left hand scissors/large squeeze scissors)
- M. 1:1 support
- M. Specialised equipment will be used (i.e., thicker pencils, easy to hold scissors) to suit the pupil. Simpler tasks.

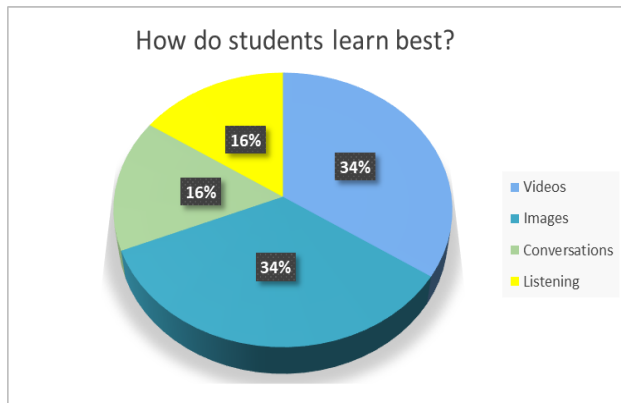
6) If you had to create an artwork, what season of the year would it be set in, and what colours would you choose?

- M. Spring/ pastel covers
- M. Autumn/ warm colours
- M. Spring/ bright colours
- R. Summer: orange, yellow, light blue
- L. I would choose pastel colours in the winter.
- S. Spring/summer are easiest with flowers/ bright colours.
- A. Springtime/ green, blue, and pastel colours
- P. Summer - warm bright
- S. Spring. Red, blue, green, yellow brown.
- H. Summer/ bright colours
- W. Personally, the season in the winter, to relate it to what we can see out the window now/ soft colours.
- M. Spring, bright colours

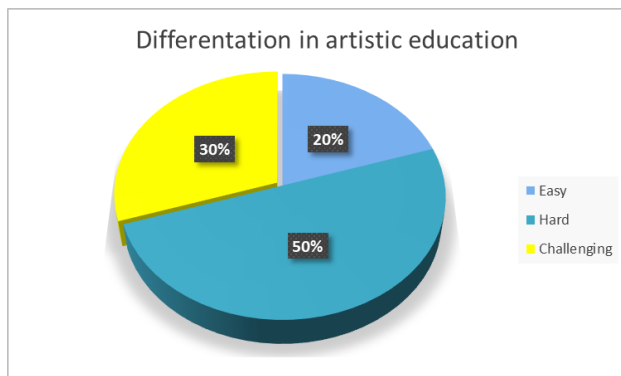
M. Would create it based on the current season: winter. I would use white, silver and shades of blue and grey to reflect the weather.

Charts

The following graphs reveal the percentages of the arguments that support this Action Research. These are statistics based on surveys on the experiences and observations of 13 teachers with different specialties. Issues that influence teaching due to differentiation or external influences that may have an impact on learning are covered.

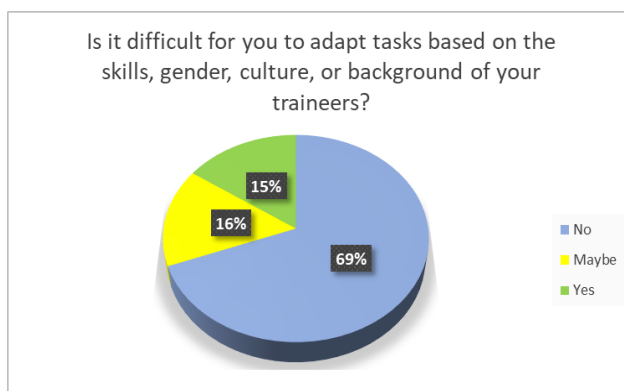


This diagram shows that 68% of teachers show that their students have a form of visual learning.



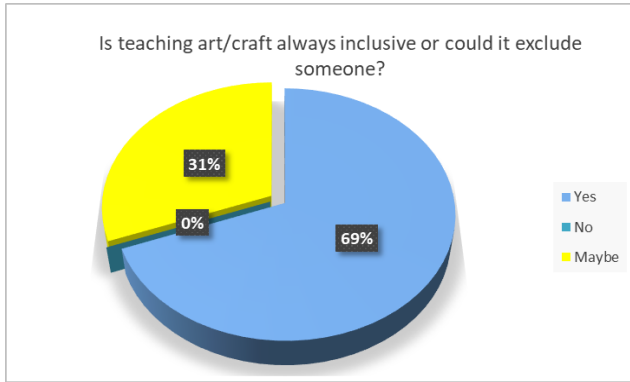
Some teachers who said it was art differentiation is "challenging or hard" added these comments:

- Support staff or adequate resources are not always available.
- Adding art to my lessons is always beneficial for my students, but there is not always enough time to create lessons with materials that are adaptable to individual needs.



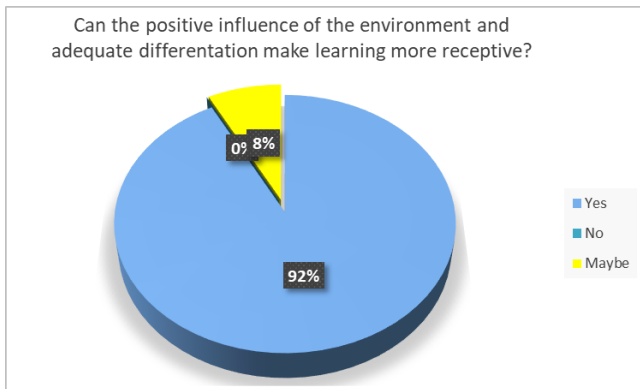
This diagram shows that 69% say "no" Some comments from teachers who answered "yes or Maybe" were the following:

- It depends. Some of my students backgrounds a very different, so there are subjects that required to be taught in a very sensible way. Not every family has the same believes neither the same principles.
- All work is individualised to each pupil.

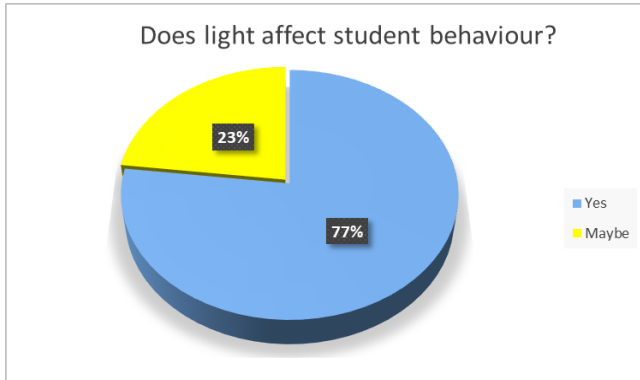


Some of the teachers who responded with "maybe" made the following comments:

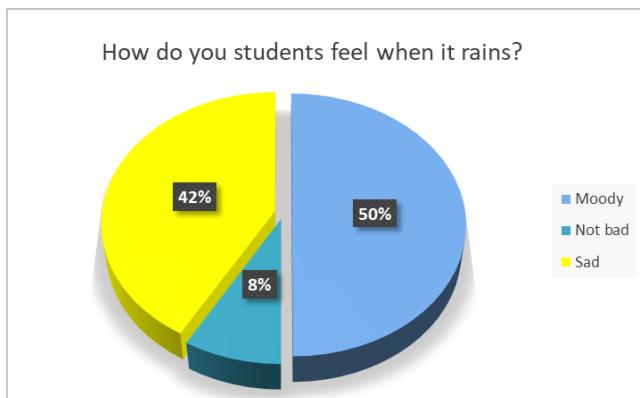
- Good support wouldn't exclude anybody. It's about getting the resources and skills/interests of the teacher.
- It depends, sometimes certain processes are not suitable for all students, consequently if they work in a group other may be disadvantaged.



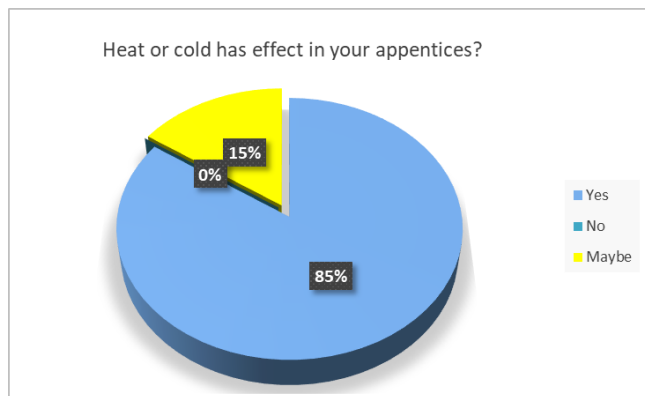
According to 92% of the teachers interviewed, they recognize that a good environment and adequate differentiation make the student more receptive to learning.



77% of the teachers interviewed acknowledge that light influences the behaviour of learners.



92% of the teachers interviewed acknowledge that rainy days have a negative impact on students.



85 % say “yes”.

Some of the teachers who responded with "maybe" made the following comments:

- Good support wouldn't exclude anybody. It's about getting the resources and skills/interests of the teacher.
- It depends, sometimes certain processes are not suitable for all students, consequently if they work in a group other may be disadvantaged.

6.3 Surveys and charts for students

The following questionnaire is made for 10 SEND students from KS4 and KS5, pathway 2. However, to make the graphs I have included 20 students from KS4 and KS5 pathway 1. Being able to include all these students in my questionnaires will allow me to directly cross-assess those involved, that is, our learners. Finding out how they perceive the teaching, what their learning preferences are and the challenges they encounter through different situations or stimuli, will help me understand the impact of differentiation and how it could be adapted in an inclusive way. By means of the charts, I will also obtain results with exact figures.

Survey

1. What is the best season for you to go to school and how do you feel?

6 Summer/ 2 spring/ 1 winter/ 1 autumn

Feelings: 7 Happy/ 2 excited/ 1 calm

2. Do you prefer to study near a lighted window or a window with the blinds down?

7 windows with lowered blinds/ 3 lighted windows

3. If you had to make an artwork, what are your favourite materials to do it with?

6 Brushes, paints/ 4 all/ 2 paper, crayons, pencils

4. What is your favourite colour? Is there colour you don't like?

3 blue/ 1 red/ 2 purple/ 2 yellow/ 1 light blue

Dislikes: 1 green/ 3 brown /1 pink/ 2 grey/ 3 purple

5. If your class must prepare a performance, would you be the actor or the cameraman?

6 Actor/ 4 cameraman

6. Would you rather learn how to make pizza or ice cream?

6 Ice cream/ 4 pizza

7. What do you like the most? Write messages to your friends or chat with them?

7 chat/ 3 messages

8. What activities do you enjoy doing?

4 sing/ 2 paint/ 2 cook/ 2 swim

9. Do you feel more comfortable studying in a group, or do you prefer to be apart?

4 In group/ 6 separately

10. Do you prefer to learn by watching videos, by talking to others, or by listening?

8 Videos/ 1 listening/ 1 talking.

11. What is more difficult to do in art, drawing or modelling?

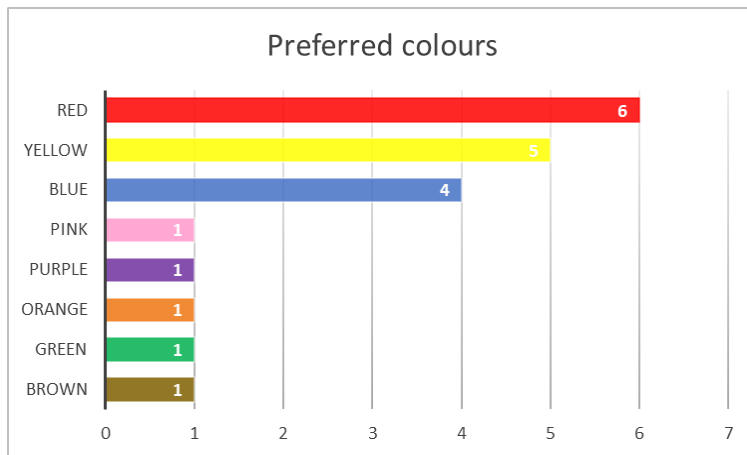
6 Drawing/ 4 modelling

12. How do you feel when listening to music?

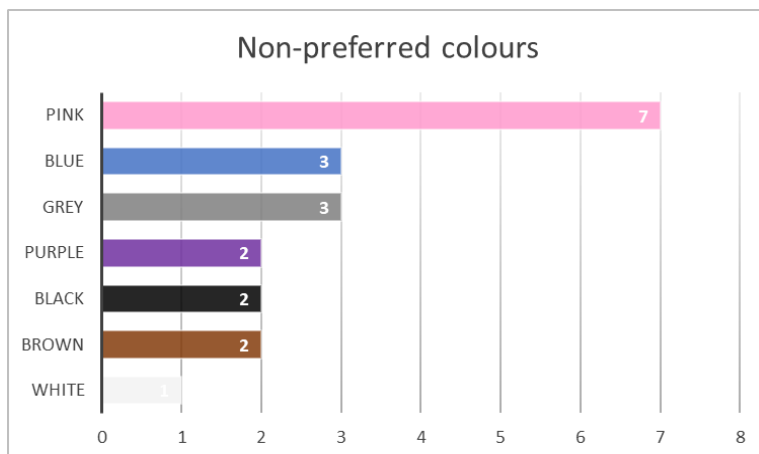
7 Happy, 2 calm, 1 nervous.

Charts

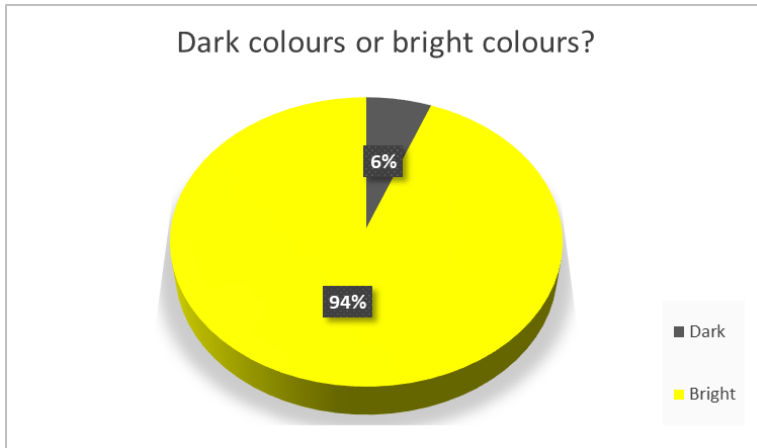
Colour impact



As can be seen in this chart, the most preferred colours are red, yellow, and blue.

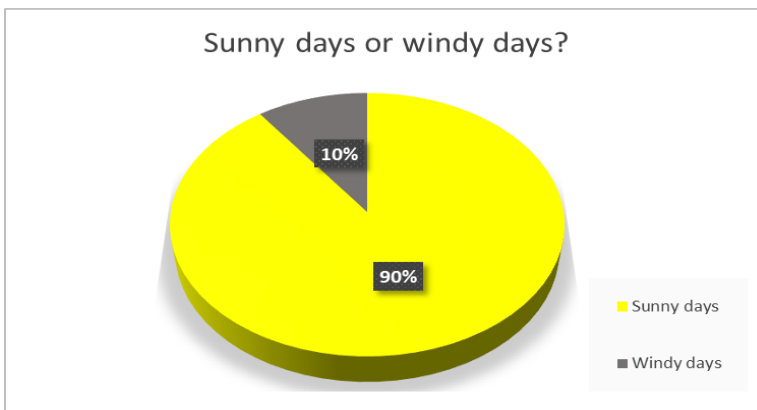


As can be seen in this chart, the least preferred colour is pink.



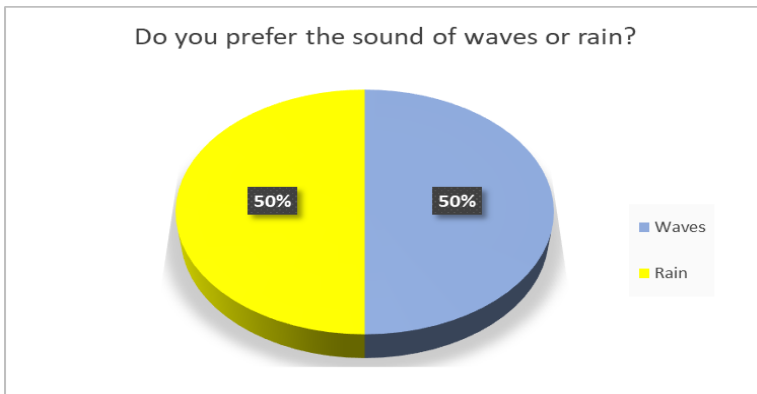
94% of the students interviewed prefer bright colours. Bright colours are identified with warm and lighter tones.

Weather impact



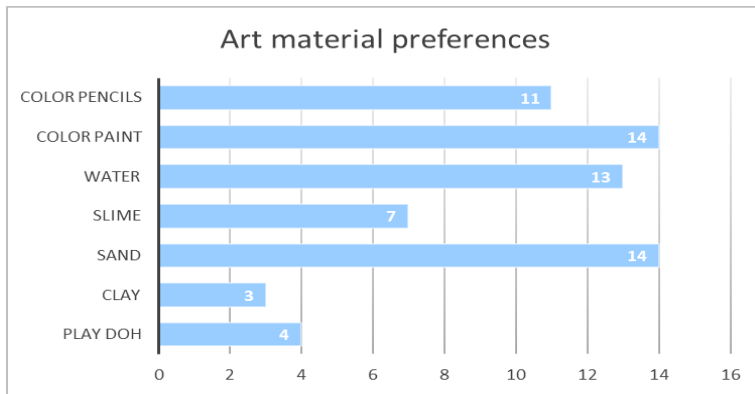
90% of the students interviewed prefer sunny days, while 10% of the students prefer windy days.

Sound effects



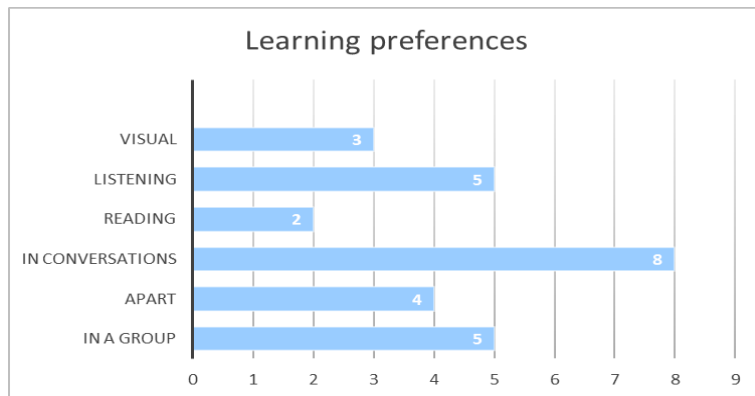
In this graph we can see that there is equality in the preference of certain sounds connected with nature.

Art/sensory preferences



In this graph we can see which are the most popular art materials among students, and which are also the most popular sensory preferences.

Learning preferences



In this graph we can see that conversations are one of the most popular learning styles among pathway 1 students.

7. RESULTS

Differentiation in art

According to 50% of the teachers interviewed, it is difficult for them to differentiate an art lesson, and 30% find it challenging. Among the reasons mentioned are the lack of adequate resources, time to prepare differentiated lessons or lack of support staff. However, in cases where teachers teach students with sensory needs, they strive to provide alternatives and individual support.

In terms of creating inclusive classes and adapting the lessons to the different backgrounds of the students, respecting their beliefs or cultures, for 69% of the interviewed teachers, it is not difficult to do this. However, 31% find it moderately difficult or very difficult.

When teaching arts or crafts, could some processes exclude some students? 69% of those interviewed said no, however 31% were not sure, and among the comments it was said that this could be because "sometimes certain processes are not suitable for all students, consequently if they work in groups others may be at a disadvantage".

Learning styles, sensory preference, and inclusion

According to 68% of teachers, students have a predisposition to forms of visual learning.

While 32% are divided between more conversational learning.

To adapt the individual needs on fine motor skills, of the 11 teachers interviewed, 8 provide individual support to their students, and 3 provide alternatives. This shows that an effort is made to include all students.

Among the interviewed students they are divided between visual learning and conversational preference. While the most popular art materials are sand, water and artistic

processes with paint. 50% of the students interviewed prefer the sounds of the waves of the sea and the other 50% prefer the sound of the rain.

Impact of colours and preferences

When asking the teachers about their preferences for colours and seasons to create a work of art, 9 teachers prefer the warmer seasons, and 2 the colder seasons. Regarding the choice of colours, 9 teachers chose warm tones, and 2 teachers chose cold colours. 94% of 20 interviewed students prefer bright colours, while 6% prefer dark colours. The most popular colours among students are red and yellow. And the least favourite colour is pink.

Effect of the environment on learning

92% of teachers recognize that a good environment has a positive impact on learning. According to the results of the questionnaires, 11 out of 13 teachers have noticed negative behaviour based on weather conditions.

77% of teachers realize that lighting influences student behaviour, but 23% aren't sure. All the teachers adapt the light according to the needs of their students. Since they have noticed that regulating the light properly influences positively the learning of the students. 92% of teachers recognize that rainy days have a negative impact on student behaviour. 8% are not sure. 90% of the students prefer sunny days and 10% prefer windy days. 85% of teachers agree that heat or cold affect student learning. 15% are not sure.

8. LIMITATIONS

Different needs in the same classroom

Some artistic experiences are related to the senses such as touch, sight, hearing, and smell, and in other cases taste. In these activities the student can create sensory experiences through artistic processes such as painting with plates, collage, ceramics, engraving, painting on glass, etc. Among the materials used for these creative processes we find paint, glue, paper, sand, soap, bubble wrap, aluminium foil, plasticine, clay and many more. Through these materials sensory students can transform realities through the senses. The focus is placed on what is perceived: smell, taste, touch, see or hear, since through different types of intelligence mechanisms it is possible to generate knowledge that is internalized, felt, and stored in memory.

All this could have a positive effect on some students, but on the other hand, it could create conflicts with other forms of learning in the same classroom. For example, seemingly innocuous sensations, such as the texture of a carpet, fluorescent lights, crunchy foods, or the hum of a paper shredder, can be irritating, or even unbearable, for people with autism. When overstimulated, people with autism may become agitated, evasive, or simply "shut down" and become impassive to escape unpleasant stimuli.

According to the quote from the article "The pedagogical limitations of inclusive education", the most basic definition of education is essentially inclusive because it seeks to promote the maximum development of all, so it must also be essentially differentiating. This is because the limits of inclusive education are based on recognizing and promoting excellence in difference, while the limits of differentiated education are based on recognizing and

promoting inclusion. (2020) Pozo Armentia A., Reyero D. and Gil Cantero F. (See bibliography).

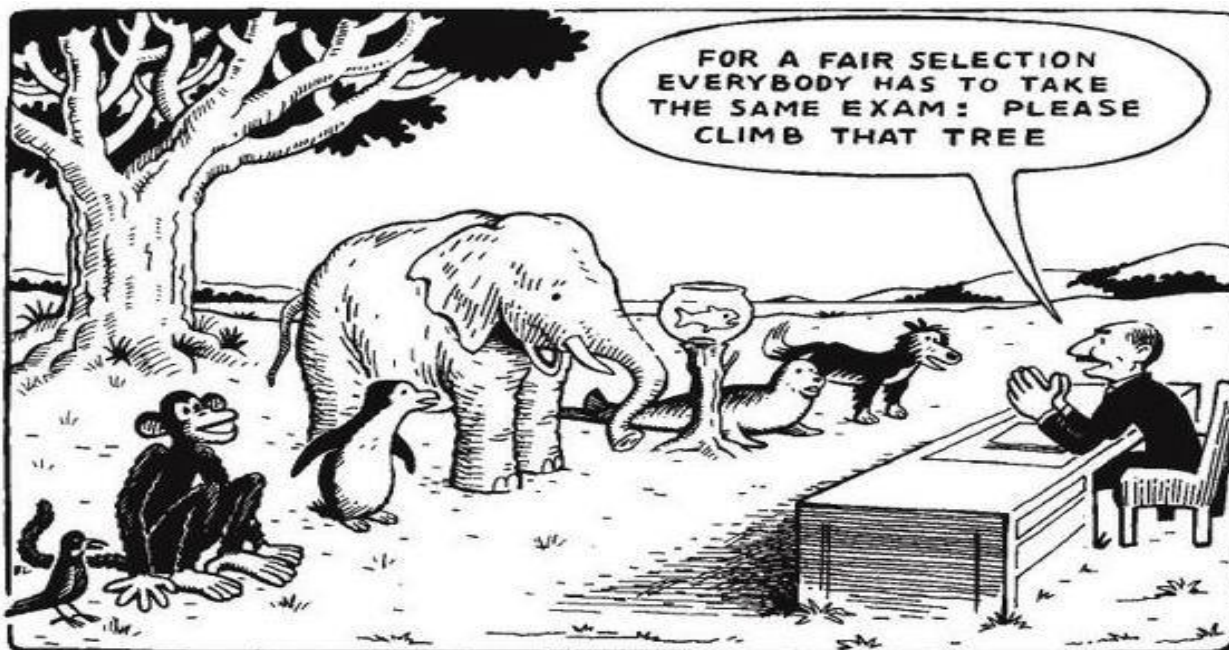
This may sound a bit counterintuitive, but it demonstrates the constant effort an educator must make to maintain the balance between differentiation and inclusion. In my personal case, working with SEND students expands this concept, since physical and mental capacities must also be considered.

An example of these limits I had to face with a student who had some sensory demands. I organized a collaborative artwork including this student in the same group of students with independent prompt which had to use acrylic paints, water, and brushes. However, a behavioural conflict arose that created a tense atmosphere in the classroom, because he gathered all the materials and was not willing to share them. On another occasion I tried to prepare another work developing it individually, however I kept having problems with the same student, since he did not moderate the amounts of paint he used and if he finished, he would pick up the paints that his classmates were using, creating conflicts between peers. Unfortunately, I had to avoid the use of these materials, and use other artistic alternatives so as not to generate behaviour problems. So, on the one hand there was a benefit, but on the other hand there was a decompensation because other students could not use paint. This is an example that can often be found in a classroom with SEND students, and it is also an example of how some differentiations limit inclusion in the art classroom.

Budget and space

Another example of limitations are the spaces and financial availability of the school. In a differentiated art classroom, in addition to being able to have various art resources, for example, sensory spaces, sensory materials, computers with programs for digital illustration, special lights, and more support staff could be included. But obviously, all this requires space and money, and the available budgets are not always enough to compensate for everything that would be required.

9. CONCLUSIONS



"Everybody is a genius. But if you judge a fish by its ability to climb a tree, it will live its whole life believing that it is stupid." - Albert Einstein
Illustration from Google

This cartoon may be funny, but from a student's experience it can be frustrating. The good news is that we are past the time when teachers did not have the tools to understand what differentiation is or how to achieve it, much less fully understand the concept of inclusion. However, today knowing how to make good use of differentiation can still be a challenge. *"I define [differentiation] as a teacher who really tries to address students' particular readiness needs, their particular interests, and their preferred ways of learning. Of course, these efforts must be based on solid classroom practices; It's not just about trying anything. There are key principles of differentiated instruction that we know are best practices and that underpin everything we do in the classroom. But at its core, differentiated instruction means addressing the ways students vary as learners."* Carol Ann Tomlinson on EdWeek (2008)

As an art teacher, I want to be able to provide opportunities for all students to succeed in an inclusive way, beyond stereotypes. That means evaluating individual needs so that through differentiation those needs become inclusion and not a limit.

Through this research I was able to obtain evidence that supported my doubts, and, in turn, these allowed me to reflect on practical ways to support my students in their learning. The interview and the questionnaires also gave me clear information about the frequent problems, the limitations and the points for improvement, the objectives that we can set ourselves as teachers and the challenges that teaching frequently entails.

As the article: 4 Ways to Differentiate in the Art Classroom suggests (Please, see box on page 8), "Differentiation in the art room emerges more naturally as we celebrate each student's individual artistic voice and self-expression."

This means, for example, that I need to revise my concepts and objectives to focus on my students' essential learning standards. I can create groups of students with similar needs,

but I can also make my students could have artistic experiences according to their tastes and preferences, that way I will achieve an inclusive class.

- How can I do to carry out a task that has artistic processes where resources such as glue, water or paint are required for students with sensory needs?

To consider the different fine motor levels and sensory needs of my students, I may ask them to use different sizes of brushes, scissors, or explore methods between tearing and cutting paper. Students can also explore glue consistency and practice gluing skills. Once students have been exposed to these techniques, I can better understand my students' individual abilities, preferences, and needs, so I can offer them the opportunity to choose the technique in which they feel most confident. For students who need more support, one to one help can be provided. Also, to achieve an inclusive environment within the art classroom, I will be able to choose examples of artists who can help my students understand and celebrate human diversity. This will allow me to expose my students to new perspectives and experiences. As the article "9 Tips for Integrating Artists with Disabilities and 7 Artists to Share" said (see box on page 9): Artists with disabilities can be a mirror for students who have a disability and remind them that they belong in art room.

- Certain students tend to avoid some colours because they find them irritating and prefer other tones, how can I diversify the tasks and better adapt them to their needs? How can I prepare adapted lessons for students with fine motor difficulties, when developing tasks that require it?

According to the book: "Colour psychology: effects of perceiving colour on psychological functioning in humans", colour is a ubiquitous perceptual stimulus that is often considered in aesthetic terms. But colour can have important meaning and can have a major impact on people's affect, cognition, and behaviour. (Please, see the bibliography) However, this does not have to be a limitation.

Thanks to the variety of resources, I can make differentiations that allow me to consider the preferences of my students, whether they use brushes, print rolls, or colours. One way to do this could be to allow my students to explore different materials and practice with them, so that they can then determine for themselves what media they want to explore to create. In this way it will also help me solve the problem of those students who prefer to use certain colours or avoid others. So, I can focus more on the "how" they manage to produce something of their choice and not on the "what", even if it is about colours, a process, a material, etc.

- Can weather or light conditions really influence the behaviour of my students? If so, it is: What alternatives do I have to be able to handle situations when my students have behaviour difficulties or lack of concentration?

In the book "Do Shorter Winter Days Really Get Us Down? (See Sidebar, Page 6), he mentions that the SAD theory is that the fall/winter darkness depletes the brain's serotonin stores by making the pineal gland converts too much into sleep-inducing melatonin. According to my interviews and research, certainly weather conditions, and absence influence human behaviour. Consequently, they also affect student learning.

Additionally, in my research on the most popular art supplies and sensory needs among students, the top-voted resources were the use of water, sand, and paint. This is notable since it could suggest that this type of election is also connected in some way with summer. Indeed, by considering the effect that light could have on my students at different times of the year, I can choose alternatives to increase the light where it is necessary or reduce the lighting if it affects some visual need. Another option to focus on the months when the seasons have darker or rainier days is to look for art activities that, according to the curriculum, can be adapted to art assignments. For example, create sunny landscapes, use warm or light colours, as well as create colourful posters with motivating phrases. Another way to motivate my students to keep them focused could be using the imaginative qualities of drawing by having them add imaginary details, such as objects, characters within an environment or in a landscape. I can also involve them in the preparation of presentations or videos to present artists and their works of art and organize visits to museums or art galleries.

For my SEND students to feel included, in addition to assessing individual learning, I can provide opportunities for them to create in the way they feel most comfortable. This also could be giving them the opportunity to decide if they would like to work together with their peers on collaborative artwork, or create an online store to sell their work, or submit a proposal for a hallway mural. Ultimately, each student will thus be able to develop skills at their own pace and will be supported and celebrated for what they can do, not penalized for what they should or cannot do. In this way the focus in the art room can be directed to help SEND students take risks and learn through trial and failure. And this is certainly a way for the lessons to also achieve the goal of being inclusive.

Personally, I feel influenced by the effects of weather conditions, and the lack of light in some periods of the year, as well as the impact of colours on our emotions. And even though this argument may seem fascinating or because it is a subject of continuous study, I feel that it affects me personally.

Simply by thinking about the nature of my SEND students, about the complexity that some of them encounter in order to express their emotions, this motivates me to want to explore ways of differentiation based on the effect of light, colour, and weather conditions so that It can also be effective in the performance of any other subject that we are teaching.

10. REFLECTION ON ACTION RESEARCH



“Experiencing the expressive arts can engage learners physically, socially, and emotionally, nurturing their well-being, self-esteem, and resilience. This can help them become healthy, confident individuals, ready to lead fulfilling lives as valued members of society”.

By HWB “Area of learning and experience”
Expressive Arts
Illustration by Carina Defilipe

The results of this research not only support most of the theories, studies, and results of other researchers, but also reveal the real difficulty that some teachers like me have when it comes to differentiating and promoting an inclusive classroom.

To investigate how my students can have an inclusive class where they can be "involved by promoting their well-being, self-esteem and resilience", through differentiation, I needed to do a search that was effective. And to achieve this, I base myself on the form of action research cycle, which has a stage of observing, planning, acting, and reflecting.

When "planning" this action research at the beginning it was a bit challenging since I was not sure if I would achieve my objectives because I had too many questions to ask myself and I needed to focus on the relevant aspects for which I was directing my search, that is, the differentiation for SEND students that was inclusive, but specifically in art. Perhaps it could be very pretentious, but it is what I needed, since every time I chose techniques or processes, I found it difficult to include or not certain students due to their abilities. The "acting" stage was a little more complex because it required time and perseverance. However, I found it very fascinating, because it was a way of discovering aspects that I did not know very well. And although initially I felt like a navigator in unknown waters; surprisingly, I found this research very interesting. In summary, I can say that it enriched my knowledge and that it pushes me to continue deepening.

To "observe" time and patience were needed, to analyse and compare data, to later obtain the necessary information. It was a curious process and full of surprises to discover that with precise data I could support my theories, doubts, and perspectives.

By nature, I am a “reflective” person and I like to have all aspects clear as they are the basis for balanced decisions. With the abundant information that I have obtained, without a doubt, it helped me to reflect on what my new horizons were and where to focus. So, I can finally feel more secure, and I can do something else to grow professionally. Following the Action Research process method can undoubtedly enrich our knowledge and push us to set clear objectives for our future as teachers.

Improving my action research skills is a continuous process of learning and growing, so there are different ways to do this.

One way could be to continue learning about action research. I can do this by keeping myself up to date on new trends, developments, and best practices in action research. I could also read articles, books, attend workshops and conferences to keep myself informed. Another option could be creating a peer network, that is, connecting with other action researchers, to exchange ideas, share experiences and collaborate on projects. This could help me learn from others, get feedback on my work, and broaden my knowledge. Also, practical reflection would help me reflect on my actions, decisions, and results. Identify what worked, what didn't, and what I could do differently next time. Using a systematic approach can also help me stay organized and focused. I could also develop a plan, set clear goals and objectives, and follow a process that includes data collection, analysis, and implementation. Another way to improve my skills could be through collaboration with stakeholders, this could help me gather diverse perspectives and build support for my action research. In addition, I could involve interested parties in the research process, share my findings and work together to develop solutions. Accepting the comments of others and listening to their points of view could improve my work. Constructive feedback can help me identify areas for improvement and make better decisions. Practice patience: Action research takes time, effort, and commitment. Being patient and persistent in my approach, even if the results do not come immediately, could help me in my goals. In short, improving my action research skills requires continuous learning, reflection, collaboration, and a systematic approach. By practicing these skills, I could make my future action research projects more effective and successful.

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12. APPENDICES

How do I like to learn at school?

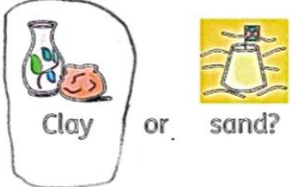


What do you prefer? Circle the answer

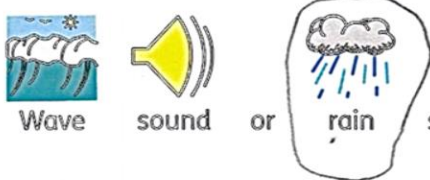
1. Colouring or painting?




2. Clay or sand?




3. Wave sound or rain sound?



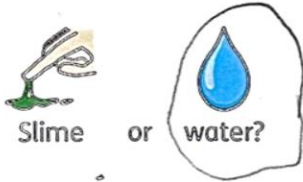
4. Dark colours or bright colours?



5. Sunny days or windy days?



6. Slime or water?



How do I like to learn?

1. Go to school on a windy day. How many stars do you give it?



2. Going to school on a sunny day. How many stars do you give it?



3. What is your favourite colour? Circle one



4. What colours do you not like? Circle one



5. To feel good, do you prefer to listen to the sound of the rain or the song of the waves?

6. Do you prefer colouring or painting?

7. Would you prefer play with water, or slime?

8. Do you prefer to model clay or play with sand?

F1/F2. Clipart.co
F3/F4. Slide Serve

How do I like to learn?	
1. What is the best season for you to go to school and how do you feel?	Summer it makes me feel relaxed and happy
2. Do you prefer to study near a bright window or a window with the blinds down?	I like light
3. If you had to make an artwork, what are your favourite materials to do it with?	Paintings
4. What is your favourite colour? Is there a colour you don't like?	Blue ✓ green X
5. If your class must prepare a performance, would you be the actor or the cameraman?	actor
6. Would you rather learn how to make a pizza, or ice cream?	ice cream
7. What do you like the most? Write messages to your friends or chat with them?	Chat with them
8. What activities do you enjoy doing?	listening to music
9. Do you feel more comfortable studying in a group, or do you prefer to be apart?	Studying in a group
10. Do you prefer to learn by watching videos, by talking to others, or by listening?	by talking to others
11. What is more difficult to do in art, drawing or modelling?	drawing
12. How do you feel when listening to music?	it makes me feel calm



Tel: [Redacted] Fax: [Redacted]
Email: [Redacted]

Dear Parents/Carers

I am writing to inform you that I am conducting an action research project that is based on learning preferences in art. Through this research I have the opportunity to investigate how the teaching of any other subject could be adapted and improved, so that it is more receptive on the part of the learners. In addition, this research would be beneficial both for all students, as well as for my own professional advancement as an art teacher.

However, to conduct this research, parental/carer consent is required.

All data collected will be completely anonymous and all student details will not be shared. If you have any questions, you can send me a personal email: [Redacted]

Kind regards,
Miss Carina

I do/ I do not give permission for the data on my child _____ to be used as part of the research project conducted by Miss Carina Defilipe.

Signed _____

(Please, circle your choice)



part of _____ a charitable company limited by guarantee (registered in England and Wales) that has its registered office at _____