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The Implementation of The Schoolwide Enrichment Model in Italian Schools

by Lara Milan

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ABSTRACT

The implementation of

The Schoolwide Enrichment Model in Italian Schools

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This study is a pilot project that aims at implementing The Schoolwide Enrichment Model in Italian Public Schools.

This study examines the effectiveness of a two years long application of The Schoolwide Enrichment Model in two Italian schools. Data analysis reveals positive changes in student and teacher attitudes toward educational approaches to talent development of the general student population and high ability students on the part of classroom teachers and the general student population, and more favorable attitudes toward special programming on the part of parents.
The study also investigates SEM adaptability to the Italian Education system.

This study includes an overview of the field of gifted education, the individuals who influenced the field, the various paths of research and educational practices in the field, including legislation and educational practices. These materials served as data that were categorized into the framework and reviewed for both similarities and differences. Identifying how the pieces fit together helped to provide a narrative account of the field of gifted education, hopefully opening up new perspectives in Italy.

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My hope is that this piece of work will contribute to opening new perspectives on how to develop gifts in the school population and how we can make a difference in our most talented youth. I trust the contamination of research and best practices will bring about an educational change in Italy.

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CHAPTER ONE

Introduction: Reflections on gifted education

The field of gifted education is based on the almost universally accepted reality that some learners demonstrate outstanding performance or potential for superior performance in academic, creative, leadership, or artistic domains when compared with their peers (Renzulli & Reis, 2014). This agreed-upon conception justifies an examination of differentiated models and strategies to develop students' talents and gifts in schools.

The purpose of this study is to examine the effects of a programming model that was specifically designed to apply the pedagogy of gifted education to the overall process of schoolwide enrichment. The model employed as the experimental treatment in the study is entitled *The Schoolwide Enrichment Model* (*SEM,* Renzulli & Reis, 1985a, 1997, 2014), and the experimental design consists of both qualitative and quantitative research methods. The study compares differences between a control group and several groups participating in two years long *SEM* programs. The specific factors examined are student attitudes toward learning, teacher attitudes toward teaching, the extent of students' creative productivity, and the processes involved in the implementation of *SEM.*
The study also investigates SEM adaptability to the Italian Education system.

1.1 Review of the Literature of Gifted and Talented Education: Historical Context and Key Individuals that Influenced the Field

Anyone hoping to understand the diversity of options for educating gifted and talented students should review the abundant literature on this subject. Many models and strategies exist that vary widely in the ways they may be used to meet the needs of highly able students. In general, models are based on a chosen definition of who is gifted and talented. Most of the models focus on meeting gifted students' academic needs, some strategies delve more into differentiation strategies and others into enrichment and/or acceleration strategies, depending on the model.

In this work some models and programs for talent development in the school context are analyzed. There is a general consensus on the concept that the individual's potential is dynamic and needs adequate stimuli to avoid dispersing it. In the international context, since the 1980s, several intervention programs have been proposed that have proved their effectiveness.

Unfortunately, the field of Gifted Education is a universe that is still little known in Italy despite, since the nineteenth century, the research conducted by many scholars such as Francis Galton, Alfred Binet, Lewis Terman and Leta Hollingworth have contributed to defining the concept of giftedness, laying the foundations of gifted education.

The studies of the English scientist Sir Francis Galton, influenced by the theories on the Origin of the Species by his cousin Charles Darwin, argued that intelligence was an inherited factor (Hereditary Genius: Galton, 1869). Galton conceptualized genius as “an ability that was exceptionally high and at the same time inborn” (Galton, 1892, p. viii). At the turn of the twentieth century, English psychologist Charles Spearman (1904) used the newly statistical techniques of factor analysis to determine that there is a pervasive ability or general intelligence, that he named *g*, that is innate, much in line with Galton’s view on the hereditary basis of genius. Around the same time Spearman identified the *g* factor, Alfred Binet and Theoder Simon (1906) were developing a mental scale to identify students in need of alternative education (Stenberg & Kaufman, 2018). Binet and Simon’s scale was the first test that included an assessment of higher-level cognitive skills and the French researcher is credited with having introduced the notion of *mental age*.

In 1916, Lewis Madison Terman, considered the father of gifted education, modified the Binet-Simon test and produced the famous Stanford-Binet Intelligence Scale, one of the first intelligence tests used to identify gifted schoolchildren (Terman, 1916). He conducted a longitudinal study, Genetic Studies of Genius (Terman, 1925), that involved more than 1500 children, called 'Termites’.

The pioneering studies of Leta Hollingworth (1926), reputed to be the mother of gifted education, also demonstrated the need to adopt multiple evaluation criteria for identifying the high potential, in addition to traditional IQ tests, including emotional aspects, and stressing the need to offer special educational programs to gifted children.

Aside from the research field, a major event that brought about a turning point in the history of US gifted education was the launch of the Sputnik in 1957 by the Soviets, which started a fierce race for space between the United States and the Soviet Union. In the era of the cold war, the technological supremacy

shown by Russia was a blow to American pride. The United States reacted by investing large sums of money in education to promote the talent of future generations, especially in the scientific and engineering field, "to realize their potential, and to put their abilities at the service of the nation" (Tannenbaum, 1979, p. 12).

A major shift in conceptions of giftedness occurred sometime in the 1950s as scholars were dissatisfied with the rigidity of IQ-based definitions of giftedness and were not content with equating high general intelligence with giftedness. One of the earliest researchers to emphasize the variety of ways an individual can be gifted was Louis Thurstone (1938). Later Horn and Cattell (1966) proposed that general intelligence consists of two major parts: fluid (g-f), that is dependent of the central nervous system, and crystallized intelligence (g-c), which is dependent on experience and cultural context. Psychometric definitions of intelligence have played an important role in our understanding of giftedness by suggesting that beneath g, there are hierarchically related abilities that contribute to intellectual gifts (Stenberg & Kaufman, 2018). From the 1970s onward, a talent development paradigm emerged, thanks to the research conducted by Renzulli (1978, 1986), Gardner (1983), Stenberg (1997), Gagné (2000), Tannenbaum (2003), which opened new perspectives on the conception of giftedness.

Joseph Renzulli's (1978, 2005) Three-Ring Conception of giftedness views giftedness as the interaction of and among three characteristics: above-average ability, creativity, and task commitment. Renzulli defines above-average ability as the ability to perform at high level, either in all domains and/or specific domain. His view broadens the conception of giftedness, traditionally attributed to the top 3-5% of the population by standardized measures of intelligence. Indeed, Renzulli has downplayed the role of conventional intellectual abilities, proposing less stringent criteria for scores and standardized measures of intelligence for inclusion of children in gifted programs, to include individuals performing on the top 15-20% of any domain. Renzulli also has made a major impact on the field of giftedness by proposing that there are two types of giftedness: "schoolhouse giftedness" and "creative-productive giftedness" (Stenberg & Kaufman, 2018). According to Renzulli, those who display creative-productive giftedness are producers of knowledge, whereas those who display schoolhouse giftedness (lesson-learners) are just consumers of knowledge. The focus shifted form the IQ-based rigid approach to gifted education and overemphasis on 'schoolhouse giftedness' to how education can create advanced domain-specific learning experiences to cultivate talent and creativity in school and optimize talent and life trajectories toward a productive and fulfilling career (Dai, 2019, page 10). Later on, Renzulli's model 'The Schoolwide Enrichment Model' (Renzulli & Reis, 1985, 1997, 2014) broaden the criteria used in the selection of gifted students, and his identification procedures reduce inequalities, such us under-represented minorities in most gifted education programs and gender equity.

Gardner defined intelligence as 'an ability or set of abilities that permit an individual to solve problems or fashion products that are of consequence in a particular cultural setting' (Ramos-Ford & Gardner, 1977). Gardner's theory and his Multiple Intelligences Model of intellectual abilities had an important influence in the broadening of educators' view of intelligence. Gardner is not the only researcher to have considered abilities in a more domain-specific way. Julian Stanley's experiences with precocious youth also led him to develop domain-specific conception of giftedness. In fact, Stanley chose to avoid the

word “gifted” in favor of “precocious” (Brody & Stanley, 2005). Stanley established the Study of Mathematically Precocious Youth (SMPY) at John Hopkins University in 1971 with the purpose of identifying youths with precocious abilities, and of supplying them with the acceleration they needed to achieve their full potential.

Another important system model of giftedness is Stenberg’s WICS model of giftedness (Stenberg, 2005), in which giftedness is conceptualized as a synthesis of wisdom, intelligence, and creativity. Monks also modified Renzulli’s Three-Ring model by adding environmental factors such as the school, family, and peers to come up with the Multifactor Model of giftedness.
Francoys Gagné (2005) proposed a theory of giftedness that emphasizes the talent-development process. He proposed the Differentiated Model of Gifted and Talented (DMGT) to uncover the important environmental influences, non-intellective variables, and learning, training, practicing, that transform basic, genetically determined ‘gifts’ into specific talents.
Abraham Tannenbaum (1986) proposed a related theoretical model that also attempts to delineate the contributing factors linking gifted potential to talent fulfillment.
John Feldhusen further formulated a developmental model of giftedness based on talent development that attempts to synthetize the various models of giftedness presented above (Feldhusen, 1988).

There are numerous and diverse conceptions of giftedness available (Renzulli & Gubbins, 2009) and each theory is built on earlier ones, as a result of an evolution of ideas. The trend over the past 20 years has been to emphasize external factors over internal factors, as a transition from genetics to epigenetics and this approach requires new methods of identifying and understanding the nature and development of giftedness.

In many Countries of the European Community, as well as in the so-called emerging countries, the issue of talent development is widely known and addressed and there are varying methods of identifying giftedness.
Nonetheless, despite the fact that modern giftedness researchers emphasize domain-specific notions of giftedness, in the USA, a global IQ score is still the dominant criterion used for acceptance into gifted programs at the grade-school level (Feldhusen & Jarwan, 2000; McClain & Pfeiffer, 2012; Silverman, 2013). In fact, several states prescribe a minimum score on an intelligence test in order for a gifted program to be eligible for funding (US Department of Education, 1993). Luckily, modern conceptions of giftedness are starting to link their conceptions to practice, and educators will start to switch over from general gifted programs to specific programs that identify and nurture specific abilities (Stenberg & Kaufman, 2018). American scholars tend to be polarized when it comes to nature-nurture issue, but in the new century, the pendulum is swinging to the nurture side (Dai, 2019, page 6).
Unfortunately, the IQ testing is likely to become, in Italy, the main identification instrument.

The particular conception of giftedness that is adopted has important implications for educational practice. Each conception of giftedness brings with it its own set of implications for education and the identification procedure should match the intervention program.

Among all the models of giftedness taken into account, the main criteria in opting for one or another is which models are not only theoretically sound but can be practically implemented in the school system.

The idea that also in Italy different education models should be adopted to meet the diverse educational needs of children with high intellectual potential is suggested since the Nineties by the Recommendation n. 1248/1994 of the Council of Europe, which was inspired by the work carried out in the workshop "Education of the Gifted in Europe: Theoretical and Research Issues", held in Nijmegen (Holland) in 1991 and supported by the Council of Europe itself. The Recommendation states that

> gifted children should be able to benefit from adequate teaching conditions, capable of fully developing their potential, in their interest and in the interest of society. No country can afford to waste talents, since it would be a waste of human resources not to identify intellectual or other potentialities in time, for which adequate instruments are needed.

Therefore, the importance of developing provisions within the school and institutional system is emphasized so as to respond in a flexible way to the various educational needs and to the harmonious development of the individual. All this contributes to the psycho-physical well-being of the talented person, preventing situations of psychological and physical distress.
In our country, specific measures have not been activated, yet even though the school regulations in force repeatedly find precise references to support the development of the potential and talents of each student. More recently the law n. 107/2015, called "The Good School', justifies a review of the educational offer in the Italian school, which identifies teaching strategies to promote the development of talent. It is therefore essential to invest in teacher training to meet the special educational needs of all children, including the educational and emotional needs of students who demonstrate potential above the norm.
The hypothesis that Italian society should invest in the development of the talent of new generations responds to fundamental ethical principles:

> every student should have the opportunity to express their potential in order to aspire to a full personal fulfillment. Furthermore, the valorization of individual talent could have significant repercussions on society, promoting the formation of creative people who could solve the problems afflicting the planet. The two concepts are closely linked: if we believe that the two objectives of education are to promote individual talent and train new generations to face the challenges of the future, then it follows that the task of education is to model their own educational programs to best develop the potential of each individual (Renzulli & Reis, 2014).

Given a failure to apply the law in the Italian context, and the lack of ministerial planning on the subject, it is necessary and useful to study and evaluate the different approaches that have characterized the field of gifted education in other countries, and in particular the different strategies used in the United States in the last forty years.

The models provide a theoretical and practical guide for the development of educational programs; they are based on precise choices regarding founding principles such as: the definition of giftedness, assessment and screening tools for the identification of gifted, the evaluation scales adopted, the curricular approaches and the programming strategies.

Systems and models can have a single orientation, perhaps centered only on acceleration approaches, or a combination of approaches, acceleration and enrichment. Therefore, it is important to know and evaluate more systems and models to discern the one that most corresponds to the educational objectives set (Renzulli & Reis, 2014).

In the selection process of an educational model for the development of talent it is essential to opt for a flexible system, adaptable to the Italian school situation and to the bureaucratic peculiarities of the school system in our country. In examining multiple theoretical models, as well as the main components of gifted and talented education systems and models, some models appear more complete than others in that, in addition to scientific research that supports the design of the program, they offer teaching strategies that guide the implementation of the model itself.

1.2 How Italian, European and American frameworks can contribute to promoting talent development in Italian schools

In an increasingly globalized world, individuals need a wide range of skills to succeed in the rapidly changing environment. Societies and economies have experienced significant change; innovative digital technologies have had a significant impact, as many of today's jobs did not exist a decade ago and we do not know what kind of jobs our youths will do in the future. Society and economy rely on highly creative and competent people to design the solutions to tackle the demanding problems that haunt our future while competence requirements are changing; in addition to good basic skills (literacy, numeracy and basic digital skills), skills such as creativity, critical thinking, entrepreneurship and problem solving play an increasing role in coping with complexity and change in today's world.

Learning Competencies for the Future

Some international organizations have identified lists of lifelong learning competences needed for the new world knowledge society: the European Community refers to them as 'Key Competences' to underline their importance and cross-curricular nature within the curriculum (European Parliament 2007). In the United States, the terms 21st century skills and 21st century learning have become increasingly popular (e.g. Partnership for 21st century skills [P21] 2002).

'The key competences for lifelong learning' is a European reference framework approved by the Council and European Parliament in 2006 and developed within the Education and Training 2010 work program. This framework builds on the outcomes from the OECD- DeSeCo program and aims to identify and define the key competences that are necessary in our knowledge society. This framework serves also as a European guideline to States Members of the European community, to join efforts towards ensuring the development of a set of competences across all age groups in Europe (European Parliament 2007, Commission for the European Communities 2008), (Voogt &Roblin, 2012).

Despite some technical differences in the implementation and assessment approaches of the above-mentioned competences, (see Voogt & Roblin, 2012), a comparison between the European competence framework and the American 21st Century Skills identifies common features and a common goal: to promote personal fulfilment and development, employment, social inclusion and active citizenship of our youths. They also both emphasize the development of important affective skills, such as critical thinking, creativity and problem solving. Both frameworks support the development of competence-oriented teaching and learning and suggest how these competences need to be transferable to new contexts. Both frameworks suggest the need for changes in the curriculum, in order to make room for these competences, and consequently the need for new teaching methods and assessment procedures.

Both frameworks underline the need to invest in the education and professional development of staff, in order to promote fundamental changes to teaching practices. Unfortunately, Continuing Professional Development (CPD) is commonly considered costly, despite the need for it to focus of any national

education policies, especially when major reforms are needed. From a macroeconomic perspective, educational services are an important contributor to the economy, (Conference Board of Canada, 2019) and should be the focus of any national education policies, especially when major reforms are needed (Voogt & Roblin, 2012).

But even if both frameworks share a common goal, that is the need of preparing young people for the unique demands of a 21st century world, the 21st century education movement in the USA can rely on a long-lasting tradition on procedures and strategies to help all students reach their full potential, as many of the 21st Century Skills have been a part of gifted education since its inception. Unfortunately, Italy has very little expertise in the field of gifted and talented education compared to other European countries.

At a policy level, one may argue that many countries around the world agree on the importance of the 21st century competences but learning them in an integrated manner throughout the curriculum seems to be far from occurring in the daily classroom activities.

The premise of this research is the belief that challenging the current theoretical and practical point of view, despite any cultural and educational differences, can enable Italian Schools System to adapt current American programs and models for talent development. To do that, may help to ensure that Italian students can develop a broad set of skills early on in life to develop their human capital. This will ultimately boost employability, competitiveness and growth in our society. Critical thinking, entrepreneurship, problem-solving or digital competences are some of the competences needed to enable Italian students to fulfil their potential and become confident and productive citizens.

Italy's Investment in Promoting Talent Development in Schools

In the past 40 years Italy has invested human and economic resources in developing programs, tools and teacher training to meet the educational and emotional needs of students with learning disabilities, neglecting the educational needs of students of uncommon ability and high IQ. Italian society's perception of high ability students is that they are already a privileged group who will do quite well without special services whereas up-to-date research broadly suggest that academically gifted students underachieve in school and drop out of high school.

Compared to other European countries, Italy has been slow to respond to the educational needs of high ability students, who are still grossly under challenged in schools due to a lack of awareness of their too long ignored educational needs. Italian educational policies in the past four decades have failed to cover a broad subject that is internationally known as Gifted and Talented Education, directing available resources to bringing low-performing students up to proficiency. Educators, school administrators, policy makers, school psychologists, and the popular press all agree that not all students start out on an equal footing, but all educational efforts were directed towards remedial rather than providing students with

uncommon ability to actualize their yet unrealized high potential. Consequently, in Italy a lack of best practices in gifted education exists as does an absence of educational tools and even training courses on gifted education and talent development. The moral principle of equity for all students that is a foundational principle of educational policies is all but nonexistent.

The idea that also in Italy different education models can and should be adopted to meet the diverse educational needs of children with high cognitive potential is suggested by several national and European provisions, the most important of which dates back to the last century:

> In 1994 the Council of Europe publishes the "Recommendation 1248" on education for gifted children
> In 2005 the “Gifted Education in 21 European Schools - Inventory and Perspective” report is published (Mönks, Pflüger)
> In 2013 The Journal of the European Union, in the chapter ‘Opinion of the European Economic and Social Committee’ relates on "releasing the potential of children and young people with high intellectual abilities in the European Union" (own-initiative opinion) are very explicit and direct.
> In 2013 The EESC - European Economic and Social Committee states that the problem of children and young people with high intellectual ability is relatively well analyzed thanks to research carried out over several decades and to the existence of an abundant specialized scientific bibliography.

In particular, the Recommendation n. 1248/1994 of the Council of Europe was inspired by the workshop "Education of the Gifted in Europe: Theoretical and Research Issues", held in Nijmegen (Holland) in 1991 and supported by the Council of Europe itself. The Recommendation states that:

> gifted children should be able to benefit from adequate teaching conditions, capable of fully developing their potential, in their interest and in the interest of society. No country can afford to waste talents, since it would be a waste of human resources not to identify intellectual or other potentials in time, for which adequate instruments are needed.

Thus, the Council of Europe underlines the need for developing provisions to respond to the various educational needs, promoting the development of the individual in a holistic way, by taking into account the well-being of the talented person.

In Italy, national educational measures have not been activated for gifted students, even though actual school regulations make clear reference to the need of promoting the development of students’ potential and talents. In 2015 the law n. 107, called ‘The Good School’, sets the grounds for a review of current educational teaching strategies, in particular to support talented students. But the law does not state the stringent need to make all necessary investments in teachers training, as Italian teachers are not presently

trained to differentiate the curriculum in order to promote each student's potential, useless to say that of students who demonstrate a potential above the norm (gifted).

Law 107 addresses the problem in two specific paragraphs:

> Paragraph 9. The principal, in coordination with the collegial bodies, can identify student courses and initiatives aimed at providing an orientation and to guarantee a greater involvement of the students as well as the nurturance of talents and academic results. For this purpose, external financing may also be used, while respecting the autonomy of the schools and the provisions of the regulation included in the decree of the Minister of Public Education, 1 February 2001, n. 44. Training courses are to be activated, as well as orientation initiatives, in order to promote academic success and talents of students.

'Educational institutions, within the limits of human resources, financial and financial instruments available under current legislation (…), evaluate initiatives to widen the offer of training and planning activities, for the achievement of the educational objectives identified as priorities among the following':

> Paragraph 7. *i*) enhancement of hands-on approaches and laboratory activities; *l*) preventing and counteracting of school dropout, discrimination and bullying, including cyber-bullying; enhancement of school inclusion and the right for students with special educational needs of individualized and personalized programs, also through the support and collaboration of the health system and educational services of the territory as well as associations

The Note of the Ministry of Education n. 2805 of 11.12.2015, known as 'Educational Flexibility', makes reference to the use of flexible instruments, already mentioned in the Presidential Decree 275/99, in paragraph 3 of Law 107. The goal is to underline and reinforce that the school curriculum and the achievement of the educational objectives cited in the law cannot be realized without a flexible organization such as the stretching of school time, even beyond the usual time frames, within the limits of the resources the autonomy can guarantee, by taking into account the choices of students and families, starting from elementary school. In addition to this, the primary school can integrate different disciplines, the middle school can arrange the time for each discipline, adopting a flexible programming of both the weeks and total amount of school-time, also through alternative arrangements of the class.

... the adoption of programming methods that enable students to participate in cross-grades groups and level groups could be an effective tool for the implementation of individualized and personalized teaching strategies; one can refer to previous positive experiences adopted for remedial purposes and/or strengthening in curricular and/or extracurricular hours; or based on the peer- to-peer strategy (students groups with an "internal" tutor, chosen among students); to teaching strategies based on cooperative

learning; to lab an hands-on activities; to problem solving methodologies; to the introduction of optional courses in the student's curriculum; to the importance of flexibility in the implementation of an integrated plan in full compliance with the choices of the autonomy of educational institutions and the freedom of teaching, calls for profound reflection and a renewed commitment in designing and use of flexibility, which in some cases could be unavoidable.

The Purpose of Gifted Education and Talent Development Programs

Renzulli and Reis believe that the first purpose of any teaching strategies, and in particular of gifted education, is

> to provide young people with maximum opportunities for self-fulfillment. The second purpose is the society's reservoir persons who will help to solve the problems of contemporary civilization by becoming producers of knowledge and art rather than consumers of existing information. If we agree with these two goals of gifted education, and if we believe that our programs should produce the next generation of leaders, problem solvers, and persons who will make important contributions to all areas of human productivity, then the third purpose is to show the sensibility in modeling special programs and services after the modus operandi of these personas rather than after those of good lesson learners. (Renzulli & Reis, 2014).

In Italy this sensibility towards the need of developing each individual's talents and gifts at school doesn't seem to be a major concern of the political and educational institutions, nor perceived by the general population, but rather an urging request put forward by few researchers and some parents' associations of gifted children. In order to respond to the many parliamentary auditions requested by these associations and some bills presented by individual citizens, in 2018 The Ministry of Education, with the Departmental Decree n.1603, has set up a National Technical Committee with the primary purpose of designing the National Guidelines for gifted children. The University of Pavia, namely Dr. Zanetti, is contributing to the discussion together with some experts in the field, as well as parents' associations.

In 2019, the bill n. 1607 represents the latest law proposal to provide provisions to recognize the existence of gifted children, to promote the adoption of personalized teaching plans and to advocate for teachers training on this subject.
More recently, the Ministry of Education emanated the note n. 562 (April 3, 2019) that officially includes gifted children in the spectrum of Special Needs. The note states that:

> gifted students are to be included in the Special Needs group, indicating the possibility of finding customized solutions. If, according to the team of teachers, there are evident manifestations of discomfort and criticality, it is the responsibility of teachers to

evaluate the need of a personalized curriculum, to be formally outlined in a PDP (Personalized Educational Plan).

The note arises three problems:

there is not a national definition, an act or law that defines the characteristics of gifted children;
a PDP is to be adopted as a remedial approach only to respond to an evident manifestation of discomfort;
the team of teachers who should evaluate the opportunity of planning differentiated strategies are not trained in recognizing the signs of underachievement and have received no training in gifted and talented education.

It seems quite risky to improvise solutions that are doomed to fail because there is no expertise nor professional training on this subject. Improvised and attempted solutions may be more harmful than no solutions at all. Once again, professional training and the scientific research on the different approaches that have characterized the history of gifted education in other countries, may help fill in the 40 years gap that the Italian school system resents, with the advantage of learning from other countries' experience, including failures and successes.

The overview of the field of gifted education, the individuals who influenced the field, the streams of research and educational practices in the field, including legislation, educational practices, gifted education publications, and advocacy efforts are the grounds of the academic training of a Specialist in Gifted Education, a professional degree that unfortunately does not exist in Italy, yet.

Indeed, anyone wishing to understand the options for educating gifted and talented students should review the abundant research on this subject. Many models and strategies exist and these vary widely in the ways they may be used to promote talent development

The history of Gifted Education teaches us that, throughout time, all the most popular intervention programs have proved their effectiveness not only in the United States, but in different educational settings across the world. However, Italy has not taken full advantage of the tools, strategies and best practices produced in this field. The trend over the past 20 years has been to emphasize external factors over internal factors, and if one may draw a parallel, we could refer to the transition from genetics to epigenetics.

Definitions and Identification of Gifted and Talented Students in Italy

In Italy there is not yet an agreed upon definition of giftedness, but one should be aware of the fact that the particular conception of giftedness that is going to be adopted has important implications for educational practice, as each conception of giftedness brings with it its own set of implications for

education. Among all the models of giftedness the Italian Ministry of Education may wish to take into account, the main criteria in opting for one or another should be which models are not only theoretically sound but can be practically implemented in the Italian school system.

Identification is already an issue that comes up for discussions among Italian experts. The history of gifted education teaches us that probably there is no unique right way to identify children as gifted, and modern giftedness researchers emphasize alternative assessments that do not rely solely on intelligence tests. The reality is that giftedness is a social construction (Borland, 2009, page 237). Moreover, there is a general understanding that 'being gifted' means that you have a high IQ. The myth 'once gifted, always gifted' persists, and giftedness is perceived as something permanent, although studies since the early 1970s consistently show that such development is the result of an interaction between the child's genetic endowment and a rich and appropriate environment in which the child grows, in an endless interaction between nature (genes) and nurture (environment), as Letha Hollingworth pointed out in the 1920s.

The benchmark for assessing giftedness varies among Italian experts; some psychologists refer to the 5% of the population, referring to an IQ of 120, whereas others refer to the 2% of the population, as the benchmark considered is an IQ of 130.

From an international perspective, it is as if the Italian approach to the still misunderstood conception of giftedness dates back to the problem of labelling students as 'gifted' that took place in the 70s' in the United States, when the controversy took a new turn and thanks to the research conducted by eminent scholars like Renzulli (1978, 1986), Gardner (1983), Feldhusen (1988), Gagné (2000), Tannenbaum (2003), to name a few, who have opened new perspectives on the conception of giftedness. James Borland does raise an important and valid cautionary note on the dangers of using the IQ in defining giftedness or as a gatekeeper for gifted programs (Borland, 2009, p 237). "There is no single homogeneous group of gifted children and adults, and giftedness is developmental, not fixed at birth" (Reis & Renzulli, 2009a, page 233).

Whatever way of conceptualizing giftedness and whatever psychometrical identification procedure Italy will adopt, it is important to underline that they should match the intervention program.

The European trend for talent development tends to advocate for an inclusive approach, and this approach helps to overcome some of the criticisms of which gifted education has historically been the object, accused of providing "elitist" paths especially to highly gifted children. Models provide a theoretical and practical guide for the development of educational programs; they are based on some important principles such as: the definition of giftedness, assessment and screening tools for the identification of gifted; the evaluation scales adopted, the curricular approaches and the programming strategies.

Systems and models can have a single orientation, perhaps centered only on acceleration approaches, or a combination of approaches, acceleration and enrichment. Therefore, it is important to know and

evaluate many systems and models to choose the one that corresponds to the set of educational objectives (Renzulli & Reis, 2014).

In the selection process of an educational model for the development of talent it is essential to opt for a flexible system, adaptable to the Italian school settings and to the bureaucratic peculiarities of the Italian school system. In examining multiple theoretical models, some models appear more complete than others as, in addition to the scientific research behind the different programs, only some of them offer teaching strategies that guide the implementation of the model itself.

1.3 Schools of Thought: Streams of Research and Educational Practices

Among the many theories of which the history of Gifted and Talented Education is permeated, three broad schools of thought that apply to education defined the three major approaches to Teaching and Learning. Differentiation, Acceleration, and Enrichment can be briefly illustrated in the paragraphs and figures that follow.

Acceleration

Acceleration can be referred to as 'vertical curriculum'. Acceleration implies moving faster through academic subjects and content, allowing students to skip grades and instructions, so as to learn at a level that best matches their academic abilities (Davis & Rimm, 2004).

Acceleration is a strategy that allows a student to progress through school at a faster than usual rate. Pressey (1949, page 2) defines acceleration as "progress through an educational program at rates faster or ages younger than conventional". The goal of acceleration is to tailor the level and complexity of the curriculum to the ability and academic readiness of individual children (Colangelo et al., 2004).

There are several forms of acceleration, to be adopted according to the academic and social readiness of the gifted child:

Grade acceleration: the student "skips" a grade or begins school at a younger age than his/her peers **(**Early entry) or completes two years in one **(**Telescoping).

Subject acceleration: depth and complexity are added to a particular content area.

Research shows that when gifted students were accelerated, there was an increase in their academic achievement. (Kulik and Kulik, 1984B; Vialle, 2001) and accelerated gifted students reported satisfaction emotionally and academically when the curriculum was challenging, provided them with options, and allowed for their input in the design and implementation. (Vialle, 2001)

Acceleration

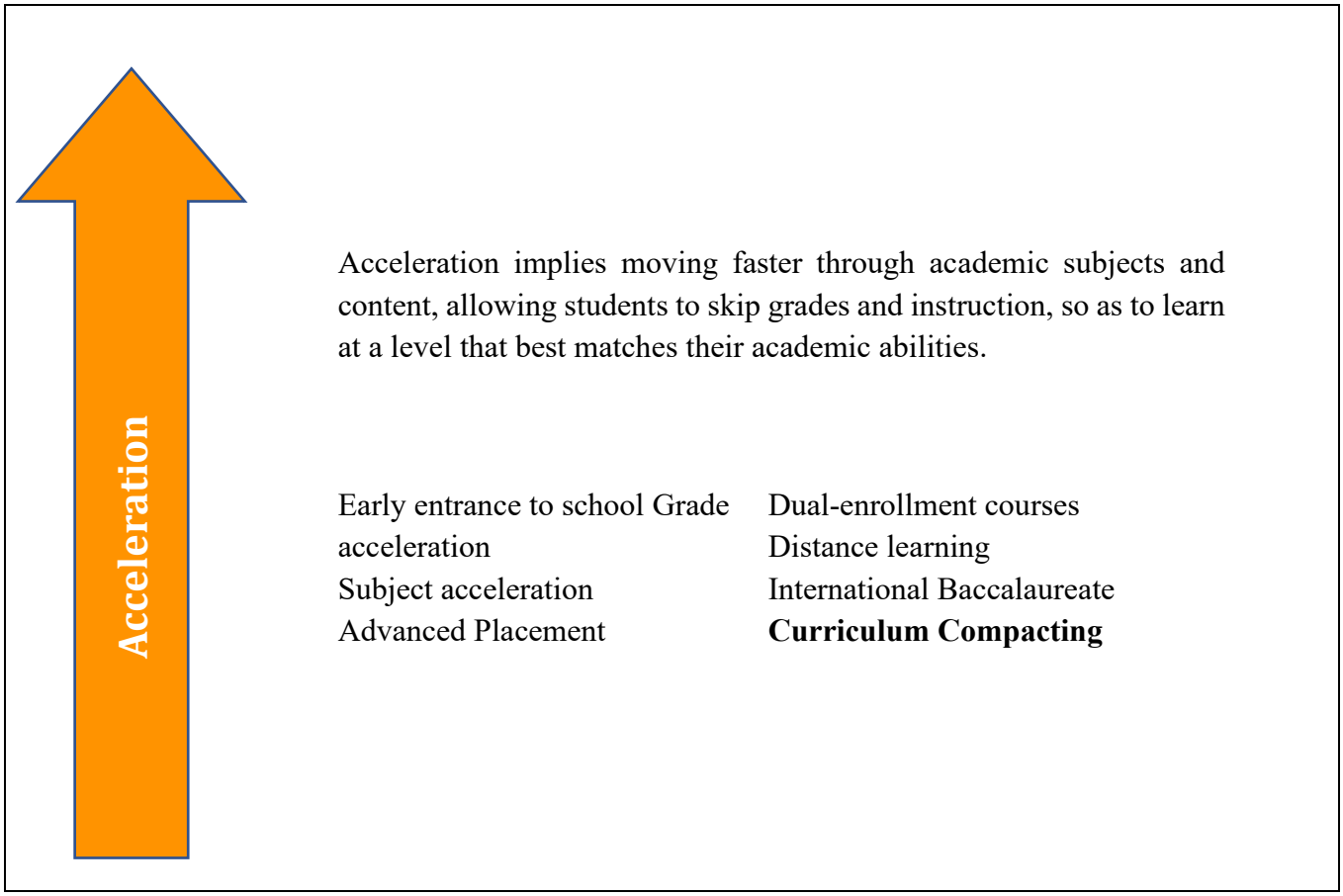


Figure 1: Acceleration.

The Italian School system allows K-14 students to skip one schoolyear throughout their academic career. Apart from early entrance to school or College and grade skipping, no other acceleration options are allowed at present time.

Enrichment

Enrichment can be referred to as ‘horizontal curriculum’. Enrichment refers to richer and more varied educational experiences, a curriculum that is modified to provide greater depth and breadth than is generally provided (Davis & Rimm, 2004, p.120). Enrichment can be seen as "horizontal curriculum expansion" within same grade levels that include academic modifications on speed (curriculum compacting), depth and breadth regarding learning content, process and products.

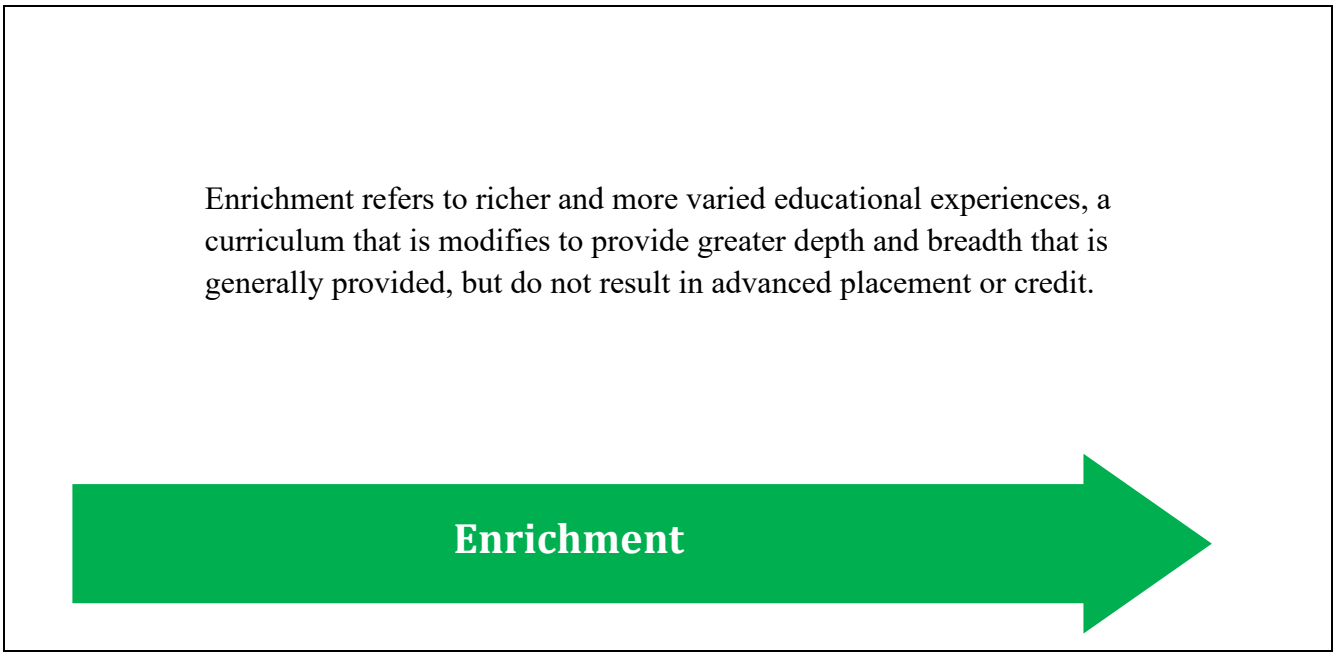


Figure 2: Enrichment.

The division between the two approaches of Acceleration and Enrichment has fueled a passionate controversy in the field, although any gifted and talented program should provide both enrichment and acceleration opportunities.

Acceleration vs Enrichment

In the past, acceleration and enrichment were frequently discussed as though they are exclusive (Piirto, 1999). In recent years, the passionate controversy between enrichment and acceleration has taken on a less antithetical dimension, and the two methodologies are used in a complementary way. Enrichment and acceleration have in fact proved to be fundamental to foster advanced learning and support intellectual development, the needs of gifted and talented students (VanTassel-Baska, 2010). Indeed, both acceleration and enrichment meet the special educational needs of talented students, as they foster and enhance the development of greater skills and abilities, particularly creativity and thinking skills (Rimm, Siegle, & Davis, 2018).

Nowadays, enrichment has gained more and more consensus among educators, who suspected acceleration risked neglect the socio-emotional needs of gifted children. Enrichment and accelerated programs are acknowledged as valid strategies to meet the social, emotional and educational needs of highly able students, preventing underachievement and drop-out of gifted students and providing opportunities to promote talent development on the part of all students.

Figure 3: Acceleration vs Enrichment.

Differentiation: a second approach in the field of gifted education

Among various programs aimed at meeting the educational needs of gifted students, another approach is offered through Differentiation. For gifted and talented students, the curriculum can be modified in content, process, and products, involving a different classroom organization and management compared to traditional instruction in the regular class. Differentiating the *content* implies adding more depth to the curriculum. Differentiating the *process* involves the use of a variety of instructional strategies and materials to address various students' learning styles. Differentiating the *products* acknowledges students' freedom to express themselves in different ways, using also technological tools. Differentiating the *classroom management*, involves different settings of the class environment and flexible grouping patterns of students.

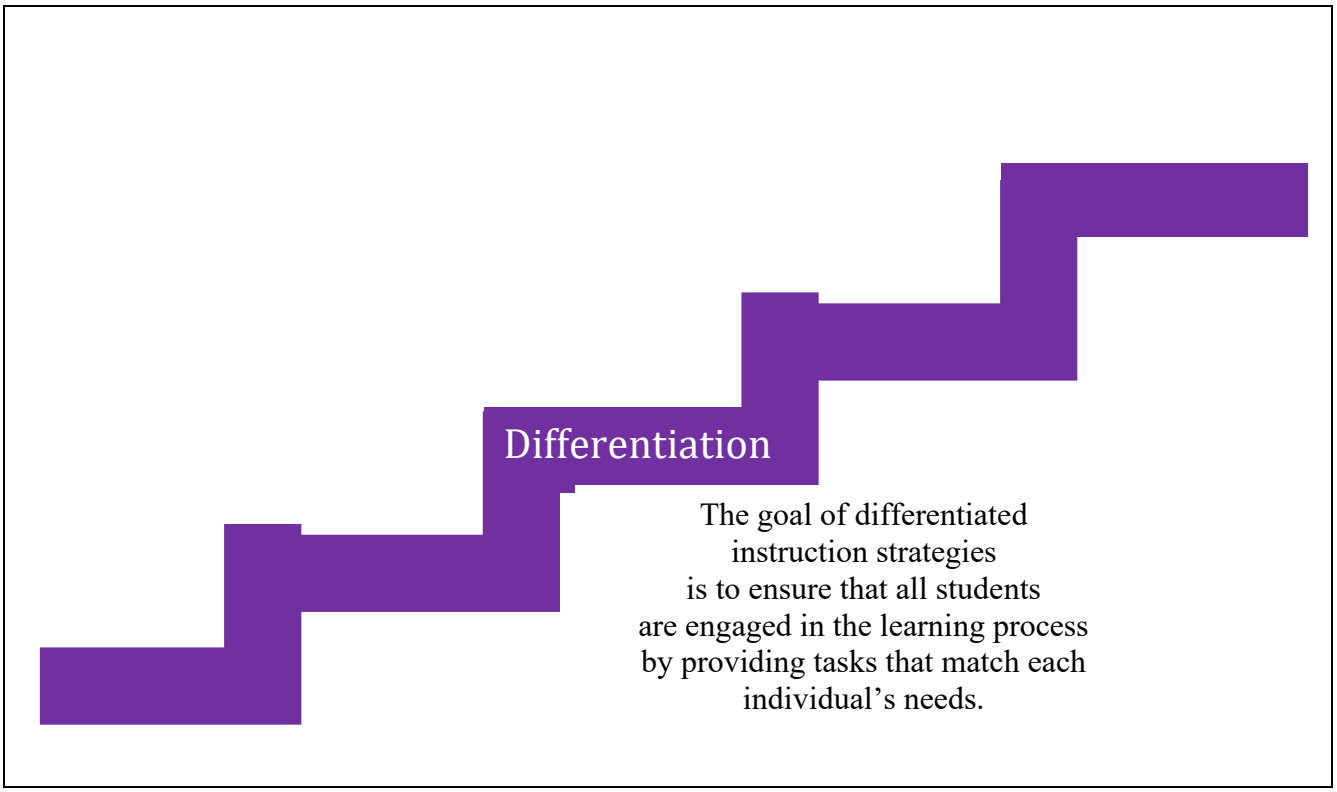


Figure 4. Differentiation

A combined approach to Talent Development

The review of the main schools of thought that characterized the history of Gifted Education in the United States in the past 40 years suggests that these three main approaches should be seriously taken into consideration when urging Italian policy makers to take steps towards the promotion of educational policies to support our students who have a potential to excel (Pfeiffer, 2013) to emerge in our schools.

The professional training and the understanding of the dynamics that generated these three main schools of thought suggested that the choice for a model to be implemented in Italian schools had to include all these three validated approaches, namely, The Schoolwide Enrichment Model (Renzulli & Reis, 2014). The SEM applies the pedagogy of gifted education to talent development, providing every student with the opportunities, resources, and encouragement necessary to achieve the students' individual potential, using differentiation, enrichment and acceleration strategies.

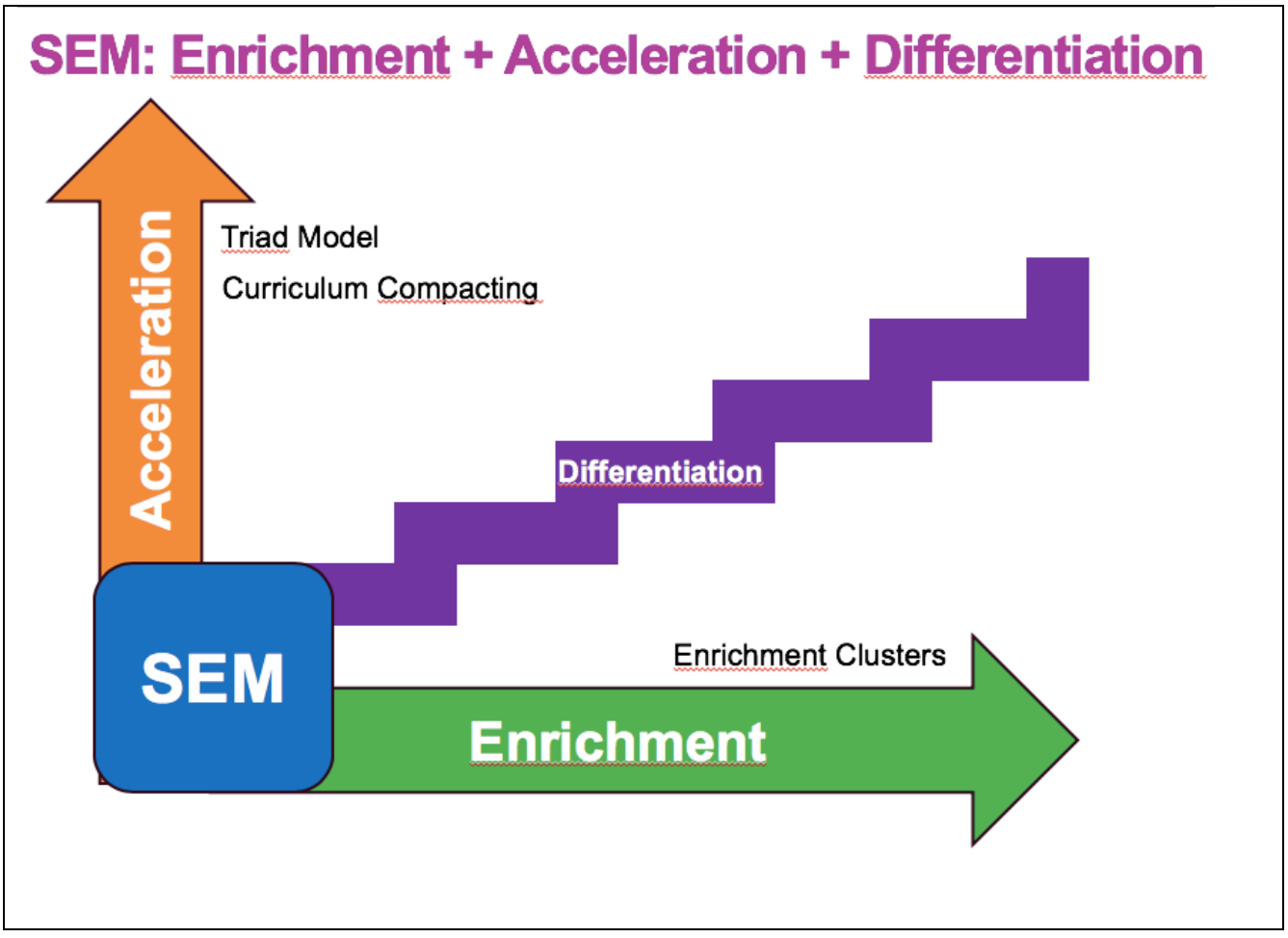


Figure 5: A Combined Approach to Talent Development

Unlike traditional gifted programs, for which admittance is regulated by achievement test and IQ cut-offs, the SEM adopts a broadened conception of giftedness (Renzulli, 1986), namely the Three Rings Conception of Giftedness (Renzulli, 1978), that avoids labelling students as "gifted" and "non-gifted".

The identification system provided by the SEM is based on a variety of measures including: the Renzulli Rating Scales (Renzulli, Smith, 2013), achievement tests, teacher/parent/self-nominations, as well as alternative pathways. Based on the belief that "a rising tide lifts all ships," the SEM allows to identify 15-20% of above average ability/high potential students. Indeed, enrichment activities provide gifted children as well as non-identified students the opportunity to explore their potentials and uncover their gifts. Steven Pfeiffer refers to these students as 'uncut and unpolished diamonds' that "have the potential to excel" (Pfeiffer, 2013).

The SEM model has been implemented in hundreds of school districts across the USA and around the world (Burns, 1998), and has demonstrated effectiveness under widely differing socioeconomic levels and program organization patterns (Olenchak, 1988; Olenchak & Renzulli, 1989).

Moreover, studies in the research literature show highly favorable results for underachieving gifted students (Baum, Renzulli, & Hérbert, 1995) when the Three Ring Conception of Giftedness (Renzulli, 1978) and the Enrichment Triad Model (Renzulli, 1977) are used as a direct intervention for counteracting underachievement.

The abundant international research demonstrates that all children benefit from participation in research-based programs for talent development to develop their gifts and talents. Simply stated, gifted and talented education work and G&T programs contribute to developing students' metacognitive knowledge and higher order thinking skills, as suggested by both the European framework and by the 21st Century movement.

Due to the sheer number of models in gifted education, the choice of a model that enhance the strengths and abilities of the school population, (including gifted learners and twice exceptional students), should be guided by some important factors such as: research, flexibility, an agreed upon conception of giftedness, as well as the availability of educational tools.

But to ensure the success of any model, professional development is to be provided to teachers to promote a mind-set that is supportive of gifted education in general, as well as a specific training focused an evidence-based gifted education practice of the selected model. Implementation fidelity is a potential moderator of intended benefits of any educational strategy (Brigandi, 2019). With this respect, the Specialist in gifted education[1] plays a key role in implementing a G&T model with fidelity, adhering to recommended structures and processes. Therefore, providing professional training to teachers on the components of any model is key to success.

The research now under way in Italy will replicate US research studies on the SEM to examine how the SEM implementation in Italian Public Schools can have positive changes in student and teacher attitudes toward education of the gifted on the part of classroom teachers and the general student population, and more favorable attitudes toward special programming on the part of parents.

[Note[1]: The specific responsibilities of the enrichment specialist in SEM programs have been described in Schools for Talent Development (Renzulli, 1994)].

1.4 Comparing **Programs for Gifted Students**

Research studies conducted during the last four decades have proved the benefits of gifted education programs to promote talent development on the parts of the school population and to challenge high-ability students in regular classroom settings. Moreover, different strategies may be needed to ensure students with high potential are challenged in order to develop their full potential and prevent underachievement and drop-out.
In the past decades, different programming options for gifted and talented students have been adopted in the United States, providing clear evidence of their effectiveness. The long-lasting controversy between acceleration and enrichment has finally come to a halt, culminating in a shared conviction that any well-balanced gifted and talented program should include both enrichment and acceleration opportunities.

Identification is a critical component of effective gifted education programming; in addition to traditional assessments, providing basic training for all teachers on recognizing and serving advanced students helps identify and more appropriately educate those students in the regular classroom (www.nagc.org).

The comparative analysis of the application of various educational proposals - such as The Purdue Three-Stage Enrichment Model (Feldhusen & Kolloff, 1986), The Stanley Models of Acceleration (SMPY and SET, 1971), The Schoolwide Enrichment Model (Renzulli & Reis, 1985), The Integrated Curriculum Model (ICM: VanTassel-Baska & Stambaugh, 2005; 2006) - has shown that all these models have significant positive effects on the students' success in education. However, the history of gifted education literature shows that the two models of but the models of Julian Stanley and Joseph Renzulli 'represent the historically different approaches of acceleration and enrichment' (Robinson A., Tabler A., 2016, p. 97).

Model	Author	Location	Targeted Students	Difficulty
The Stanley Model of Acceleration	Julian Stanley	Johns Hopkins University	Gifted Highly Gifted	★★★ 1/2
Integrated Model	Joyce VanTassel-Baska	College of William and Mary	Gifted (for a fee)	★★★ 1/2
Purdue Three-Stage Model	John Feldhusen	Perdue University	Gifted (in Indiana)	★★★★ 1/2
Schoolwide Enrichment Model	J. Renzulli S. Reis	University of Connecticut	All (for free)	★★★★
Differentiation	Carol Tomlinson	University of Virginia	All	★★★ ★1/2

Figure 6. Main Gifted and Talented Models

The Stanley Acceleration Model

The Stanley models of acceleration have proved to be a very successful approach in addressing the educational needs of highly gifted students. In the 1970s Julian Stanley created The Talent Search model to identify and serve students with above-grade-level mathematical and verbal reasoning abilities. Researches conducted at Johns Hopkins validated the effectiveness of this approach. Throughout time the Talent Search Model was re-named SMPY model (Study of Mathematically Precocious Youth), and at present time it is led by Benbow and Lubinski at Vanderbilt University (Lubinski & Benbow, 2006). Later on, the model has been expanded to include mathematical and verbal aspects both in children and adults that currently form part of the cohorts monitored in this 50-year longitudinal study (Lubinski & Benbow, 2006).

The Stanley acceleration model has a great consensus in the world of gifted education and provides for the possibility of identifying acceleration paths for particularly gifted students. Initially the SMPY was

proposed as a program for the identification of mathematically talented students and then extended, from the eighties, to different fields. Research on the Stanley model has shown that acceleration has positive effects on the development of areas of strength of early students (Stanley, Keating, & Fox, 1974), representing a rationale for the use of acceleration for intellectual development that has a positive long-term impact on student education (VanTassel & Brown, 2007). The model, widespread in America, has generated teaching materials widely used in acceleration courses but, although the model has won the favor of parents and gifted students, some teachers show some perplexity towards acceleration strategies, mainly reserved for students with high intellectual potential, the highly gifted students (VanTassel-Baska & Brown, 2007).

In Italy, and presumably in many European countries, acceleration is not a highly valued strategy and the general trend is oriented towards the adoption of an inclusive approach, which provides enrichment activities for all students, rather that acceleration for students identified as gifted.
In assessing the most valid teaching model to meet the special educational needs of Italian students, it is therefore necessary to carefully examine the positive and negative aspects of the teaching strategies currently in use. Below is an overview of some of the main models adopted in the American school system.

The Integrated Curriculum Model (ICM)

The_primary developer of the ICM was Dr. Joyce VanTassel-Baska. The ICM is intended for gifted students, in elementary, middle and high school. Though author intended the units to be for gifted students, students who have not formally been identified but whom teachers feel require a differentiated curriculum could be taught using these units. The ICM derives its theoretical underpinnings primarily form the work of Vygotsky's theory of zone of proximal development (1978) and Adler's rich of rich content to the model (1984). Three interacting and overarching dimensions underlie the ICM. These are advanced content dimension, overarching concepts/issues/themes dimension, and process-product dimension. Within the Advanced Content Dimension, gifted students are pre-assessed on their level of proficiency in a specific content area using the diagnostic-perspective instructional approach. Upon pre-assessment, students may continue to proceed move through the curriculum through acceleration, curriculum compacting, or advanced content material. Within the process-product dimension, gifted students are supported in the acquisition of essential thinking, problem-solving, and problem-finding skills. Within the overarching concepts/issues/themes dimension, the ICM makes connections between disciplines through bridging overarching themes or concepts such as change to further enhance students' learning.

This model has a strong foundation in teaching students various skills including essential thinking and problem solving. While this model is applicable to many situations and founded in strong theory, it is only available for purchase, meaning that schools must have financial resources to buy the various units. The fact that this model cannot be implemented without being purchased is the main reason why implementing it in the Italian School system was not possible, as no funds are available. (Renzulli, J.S.,

Gubbins, E.J., McMillen, K.S., Eckert, R.D., & Little, C.A. *Systems and models for developing programs for the gifted and talented* (2nd ed.). Mansfield, CT: Creative Learning Press, p. 655-691).

Purdue Three-Stage Model

The primary Developers of the Purdue Three-Stage Model were John Feldhusen, Kathryn Linden, and Russel Ames. Its main theoretical underpinnings are VanTassel-Baska's concept and process-product models. It appropriately challenges all students, in elementary, middle and high school. Regardless of age or content area, the core goal of this model is to move the student from novice toward practitioner. This model can be implemented as a wide-reaching program, or as a smaller curriculum. Through three distinct stages, this model begins with covering basic levels of knowledge, continues with the application of that knowledge and skills, and finishes with students solving real-life problems. This model incorporates ascending intellectual demand and appropriate challenge for all students, as well as an in-depth, yet uncomplicated framework. Because of its simple steps, this model is not difficult to implement, needing only a variety of resources for students to interact with at the second and third stages. Weaknesses of the Purdue Three-Stage model include its requirement of a number of resources as well as the substantial amount of planning necessary. Due to these weaknesses as well as the fact that this model is not qualitatively different for "gifted", it was not among the first options considered for this research study, also because it is not widely implemented outside of Indiana.

The Schoolwide Enrichment Model (SEM)

The primary developers of The Schoolwide Enrichment Model were Joseph S. Renzulli and Sally M. Reis. It derives its theoretical underpinnings primarily form the Enrichment Triad and the Three Ring Conception of Giftedness. The SEM challenges and engages students in enrichment activities, taking into account individual interests and talents. Through this model, students develop creative potential and productivity as well as become partners in their own learning and education. By incorporating the Enrichment Triad, this model encourages students' creative and reflective thinking through enrichment activities. This model also makes use of ascending levels of intellectual demand in which students move toward becoming professionals in the field. Applying acceleration, differentiation and enrichment for students, this model also addresses depth, rather than breadth of content. With all of these factors, SEM is very complex and at times difficult to implement with its non-negotiables and individual learning plan for students. Indeed, it is a qualitatively different program but asks for specialized and trained professionals, namely the Enrichment specialists (gifted educators). (Renzulli, J.S., Gubbins, E.J., McMillen, K.S., Eckert, R.D., & Little, C.A. *Systems and models for developing programs for the gifted and talented* (2nd ed.). (289-321). Mansfield, CT: Creative Learning Press, p. 323-352).

Differentiation

The primary developer of differentiation was Carol Ann Tomlinson. It derives its theoretical underpinnings primarily form the work of Vygotsky (1978, 1986), as well as brain research (Jensen (1998), Sousa (2001), Wolfe (2001), Bruner (1961), Gardner (1983) and Sternberg (1985, 1996). Rather than a model, Differentiation is more a series of strategies for classroom instruction and it can and should be incorporated into all classrooms, regardless of age of content. This series of strategies works to respect and respond to learner differences present in the classroom. Differentiation is achieved through recognizing and respecting the individual student's:

- Readiness
- Interest
- Learner Profile

Each student enters the classroom at a different level than his or her peers – instruction should reflect and respect those differences. Differentiation is also not specifically for gifted students, but rather should be used in all classrooms. This strategy works to plan with these differences in mind, teaching students where they are, rather than where they should be. The main strength of differentiations is flexibility allowing students to incorporate individual interests and talents. Moreover, it can incorporate ascending levels of intellectual demands, respecting the needs and readiness of all students. Its main weakness is that it requires large amount of planning time in order for teachers to make resources available for all students. Differentiation is a respectful and responsive strategy for teaching students that are each unique. While this model does address the needs of gifted students and is very applicable to all settings, it is easy to lump all gifted students together with this model. This model is key to every classroom, but as a truly "gifted" model, it is lacking (Renzulli, J.S., Gubbins, E.J., McMillen, K.S., Eckert, R.D., & Little, C.A. *Systems and models for developing programs for the gifted and talented* (2nd ed.). Mansfield, CT: Creative Learning Press, pages 599-628).

1.5 Developing everyone's potential: an inclusive model

To overcome the age-old distinction between gifted and non-gifted students, some scholars have suggested replacing the term gifted education with "talent development" (Renzulli & Reis, 1997; Treffinger & Feldhusen, 1996). This perspective emphasizes the process of developing the individual talents of all students, as well as the need to adopt a multi-criterion approach for identifying talent, with the consequent promotion of flexible educational programs that respond to the different characteristics of the students.

The fundamental criterion that guides the choice of a model of development of the talent to be implemented in Italian scholastic reality seems to be the inclusive approach, which allows to surpass the criticisms of which gifted education has historically been the object. Unlike many models that aim at a high scholastic performance, creating “preferential” scholastic paths for gifted children, the Schoolwide Enrichment Model (SEM) (Renzulli & Reis, 2014) applies the pedagogy of gifted education to the development of talent to the whole class group, offering enrichment activities to all students and, simultaneously, ensuring advanced activity opportunities to those highly motivated students with high performances (Renzulli & Reis, 2014).
The SEM model has been implemented in several hundred school districts across the USA (Burns, 1998), and has demonstrated effectiveness under widely differing socioeconomic levels and program organization patterns (Olenchak, 1988; Olenchak & Renzulli, 1989).

CHAPTER TWO

2.1 The 'why' of the SEM Model

As an Enrichment specialist, the researcher was given the chance to study the most important strategies and models adopted in the past 40 years in the United States. Most of the strategies adopted have proven their validity in promoting talent development, but some strategies tend to focus only on the emotional and educational needs of gifted children, addressing a targeted audience which does not encompass the class as a whole.
The SEM differs from traditional approaches in the field of gifted education: it applies the pedagogy of gifted education to total talent development of students, providing general enrichment opportunities for *all* students and simultaneously ensuring the opportunities for more advanced work for highly able and motivated students.

Joseph Renzulli's work and ideas were truly visionary, paving the way for a better way of engaging and enriching students' experiences.

The scientific and ethical reasons that guided my advocacy of the SEM and that induced me in my choosing the Schoolwide Enrichment Model, are as follows:

Scientific research
Inclusive Education
Flexible Model
Practical materials and tools for teachers
Conversion of the underachieving process
Prevention of drop-out
Twice Exceptional students (2E)
Representation of minorities and gender equity
advanced reasoning skills and 21st Century thinking skills
For free: all materials can be downloaded at no cost from the website (www.uconn.com)

A collective body of research on the SEM, that is widely available and easily downloadable from the Renzulli Center for Creativity, Gifted Education and Talent Development website, suggests that the model is effective at serving high-ability students in a variety of educational settings and in schools serving diverse ethnic and socio-economic populations. These studies also suggest that the pedagogy of the SEM can be applied to various content areas, implemented in a wide variety of settings, and used with diverse populations of students including high-ability students with learning disabilities and those who underachieve.

In particular, studies in the research literature show highly favorable results for underachieving gifted students (Baum, Renzulli, & Hébert, 1995) when the Three Ring Conception of Giftedness (Renzulli, 1978) and the Enrichment Triad Model (Renzulli, 1977) are used as a direct intervention for counteracting underachievement.

Individuals underachieve for a number of different reasons, but gifted underachievers would be those individuals who fail to ultimately develop their potential (Del Siegle, Understanding Underachievement, in Pfeiffer Handbook of Giftedness in Children, page 286). Indeed, underchallenging curriculum can lead to underachievement (Kanevsky & Keighley, 2003)

This brand is especially concerned with providing children with the opportunities, resources and …. , engaging *all* students in joyful learning. Moreover, students who find school more enjoyable and meaningful are less likely to underachieve (Del Siegle). Moreover, Renzulli' work shows a deep and abiding concern about students from every race, socioeconomic background and gender, allowing the potential of a child come to fruition through educational experience.

Moreover, research suggests that implementation of the SEM results in more use of advanced reasoning skills and thinking skills. This research has also demonstrated that students who are involved in the SEM activities achieve higher levels in traditional achievement tests than students who continue to use regular curriculum or remedial activities.

Renzulli's theory has generated, throughout the years, a strong research base, simultaneously translated into practices that are relatively easy for practitioners to understand and implement and has the flexibility for those practices to be adapted to variations in local demographics and resources. (Ambrose, Cohen, & Tannenbaum, 2003; Ambrose, VanTassel-Baska, Coleman, & Cross, 2010; Cohen, 1988; Renzulli, 2011).
Indeed, Renzulli's greatest effort has been to translate his research findings into practical suggestions about identification and programming that work in classrooms (page Xi Preface Reflections on Gifted Education, 2016). Although Renzulli's work may be best known for the models he has developed over the years, the real payoff of his ideas is how it affected the services that traditionally have been provided in gifted education programs and how it effects the practices that take place in the classrooms. In developing theoretical concepts, he devoted equal or even greater attention to creating instruments, procedures, staff development strategies, and instructional materials for implementing his model, pursuing a Practice-Research-Theory approach. His Confratute, run over four decades in collaboration with Sally Reis, has trained more skilled practitioners in the field of giftedness than any university ever has.
Renzulli Center for Creativity, Gifted Education and Talent Development website (http://www.gifted.uconn.edu).

Renzulli and Reis (2002) described the model as follows:

> The school enrichment model is an organizational plan to provide enrichment and acceleration through an integrated continuum of activities and proposals. These range from general enrichment for the group to proposing targeted interventions for subgroups and adopting highly personalized curriculum modification procedures for those students who are most ready, and offer more in-depth opportunities with positive repercussions on the motivational level.

A recent study conducted in the Netherlands (Booij et al., 2016), demonstrated the advantages, in both qualitative and quantitative terms, of the adoption of a gifted education program that provides for the personalization of the school curriculum, based on the SEM by Renzulli. The research, which involved a group of first grade secondary school students, selected on the basis of a series of cognitive tests, showed that the boys involved in the project not only obtained higher school grades, but increased their self-esteem and their self-motivation. The researchers were also able to detect the absence of feelings of disappointment or exclusion on the part of students who did not participate in the program. On the whole, these results justify the adoption of educational programs that promote an investment in human capital.

2.2 An Overview of the SEM: Focusing on Student Strengths and Interests

The SEM is an *Infusion Based* approach that provides *differentiated* learning experiences that take into account each student's abilities, interests, learning styles, and preferred styles of expression.
In the SEM, student's individual gifts are developed using different enrichment and acceleration strategies.

Unlike the traditional achievement test and IQ cut-offs that regulate admittance to gifted programs, the SEM adopts a broadened conception of giftedness (Renzulli, 1986; Renzulli, 2000), namely the Three Rings Conception of Giftedness (Renzulli, 1978), that avoids labelling students as "gifted" and "non-gifted". The identification system provided by the SEM is based on a variety of measures including: the Renzulli Rating Scales, achievement tests, teacher/parent/self-nominations, as well as alternative pathways. Based on the belief that "a rising tide lifts all ships," the SEM allows to identify 15-20% of above average ability/high potential students. Indeed, enrichment activities provide gifted children as well as non-identified students the opportunity to explore their potentials and uncover their gifts. Steven Pfeiffer refers to these students as 'unpolished diamonds' that "have the potential to excel" (Pfeiffer, 2013).

The SEM is not intended to replace existing G&T programs and previously identified gifted students are automatically included in the talent pool. This whole-school approach has proved to meet the educational, social and emotional needs of all students including gifted and talented students.

In conclusion, the adoption of the SEM combines all three major approaches, promoting talent development for all students, (including twice exceptional students) and simultaneously providing challenging opportunities to highly able and talented students. This combined approach and its multicriterial identification system also allows to overcome some of the criticism to which the field of gifted education has been historically entangled.

2.3 The Three E's

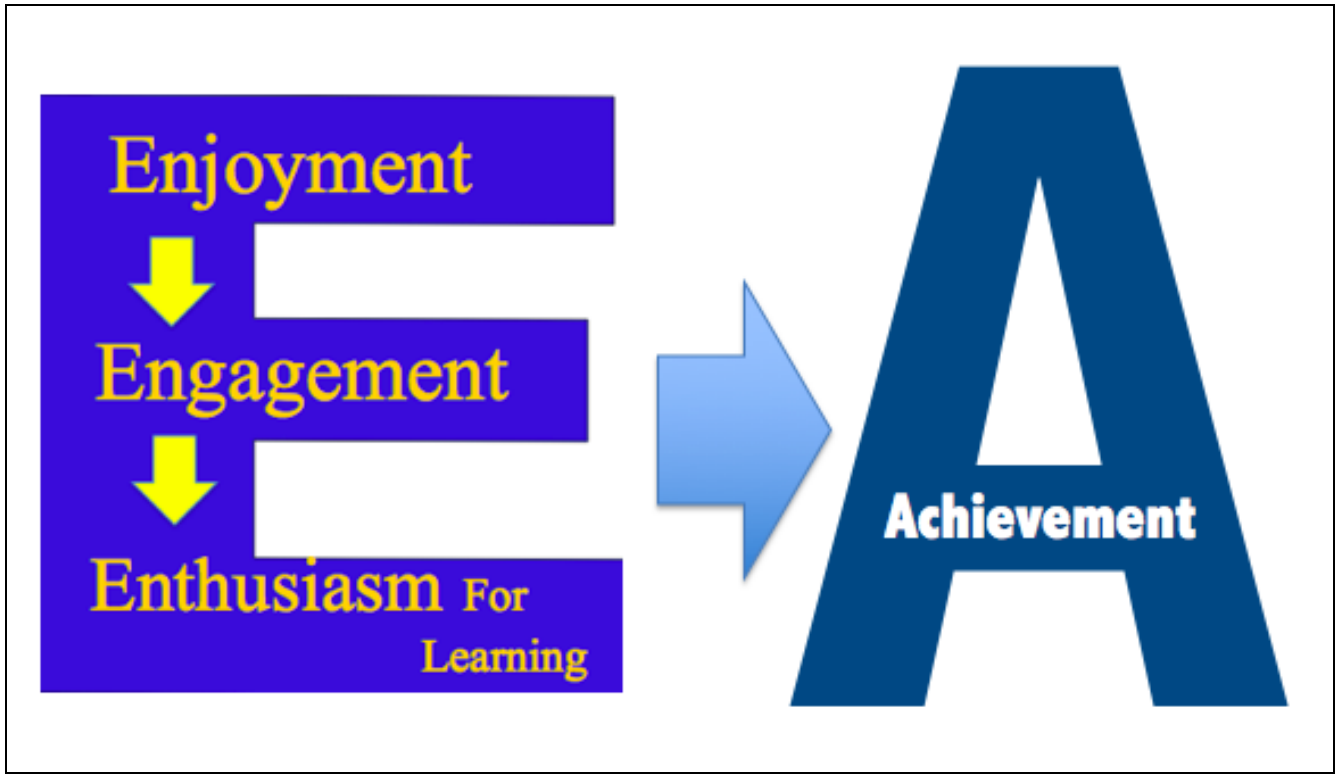


Figure 7. The Three Es

Students become more excited and engaged in what they are learning when they can focus on their interests. The minimization of boredom, and positive attitudes on the parts of both teachers and students can be accomplished when the Three Es of the SEM are adopted in the school.E*njoyment* leads to higher *engagement*, which in turn leads to greater *enthusiasm for learning*. The research shows that when the Three Es are working well, students not only like school better, they also show improvements in school achievement (Reis & Renzulli, 2003; Renzulli & Reis, 1997).

2.4 The Three-Ring Conception of Giftedness

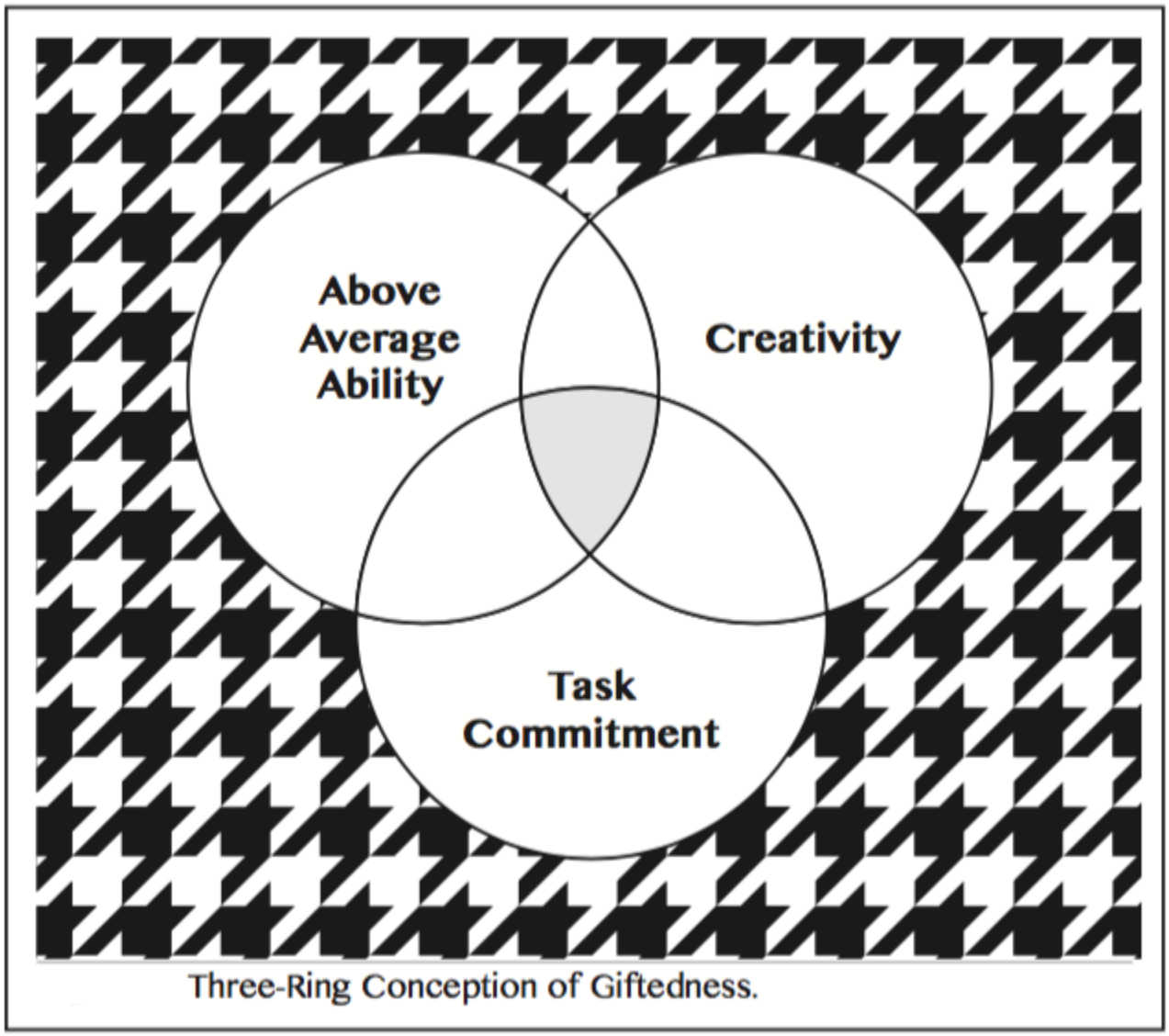


Figure 8: The Three-Ring Conception of Giftedness

Above average ability is defined by Renzulli as either general ability that can be applied across all domains and/or specific ability, which consist of the ability to perform at a high level within a specific domain. Renzulli defines above-average ability as that possessed by those individuals performing in the top 15-20% of any domain. This view differs from the traditional view of giftedness as comprising those scoring in the top 3-5% on standardized measure of intelligence (Stenberg & Kaufman, 2018, page 33).

Renzulli also made a major impact on the field of giftedness by proposing that there are two types of giftedness: ‘schoolwide giftedness’ and ‘creative-productive giftedness’. Schoolhouse giftedness is test-

taking or lesson-learning giftedness most often emphasized in school. Creative-productive giftedness are excellent producers of knowledge, whereas those high in schoolhouse giftedness are superior consumers of knowledge (Stenberg & Kaufman, 2018, page 33).

Renzulli has made an attempt to respond to various criticisms, by emphasizing the need to develop creative productive skills in addition to knowledge acquisition, and presenting evidence that his broadened identification procedures do indeed reduce inequalities such as disproportionate representation of minorities in gifted education programs and gender equity (Renzulli, 1999).

In order to better understand the implementation process, a brief description of the major organizational and service delivery components of the *Schoolwide Enrichment Model* have been summarized in Figure 9.

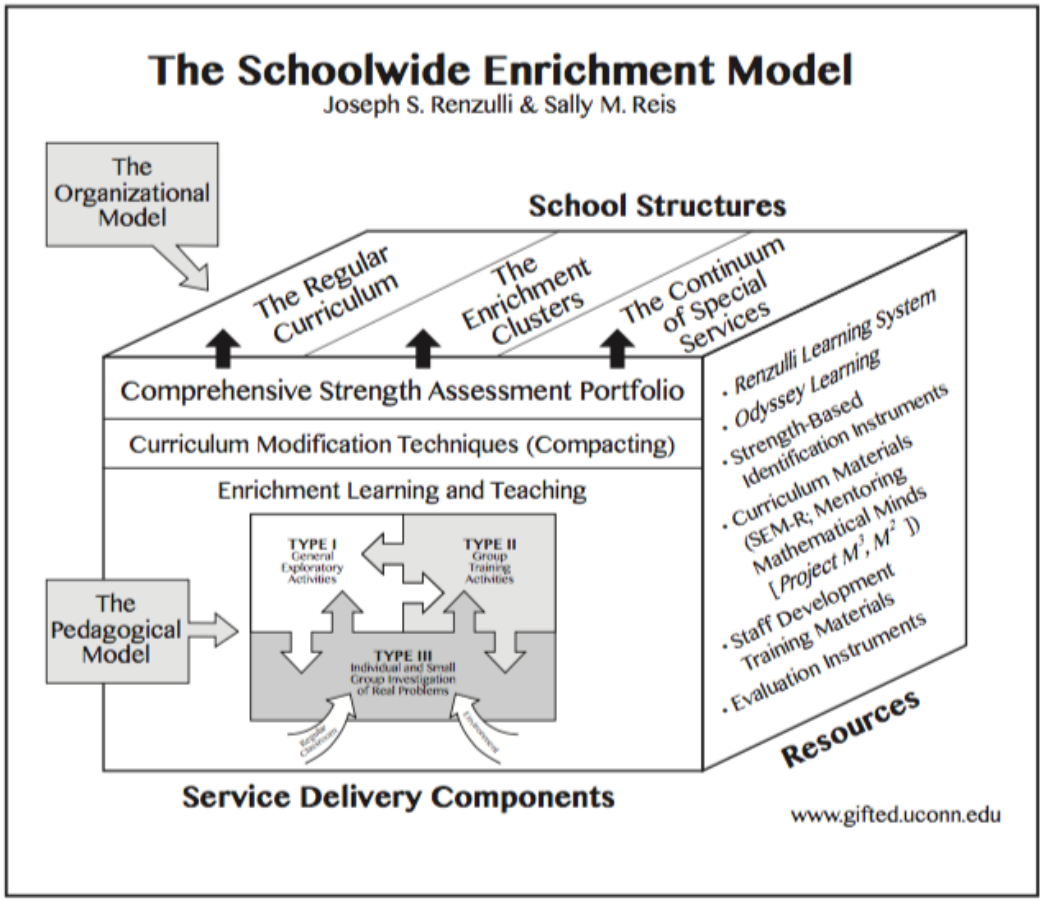


Figure 9. The Schoolwide Enrichment Model

These service delivery components constitute the major focus of the experimental treatment and are briefly described as follows:

2.5 The Triad Model

The Triad Model offers three types of enrichment: Type I, II and III. Type I consists of general exploratory activities (visits to museums, naturalistic excursions, meetings with important exponents, etc.), which allow students to be exposed to experiences, ideas and themes not always included in the school curriculum. Type II allows the development of cognitive and practical skills, including creativity, critical thinking, problem solving; analytical and research skills; character development, including inter- and intrapersonal skills; communication skills; metacognitive skills, the development of methodological processes and communication. Type III is the most advanced and consists of investigative activities and artistic productions for which the student assumes the modus operandi of the professionals, proportionate to the level of development and age of the student. Type III is generally indicated for students who demonstrate strong interests, high skills and considerable determination.

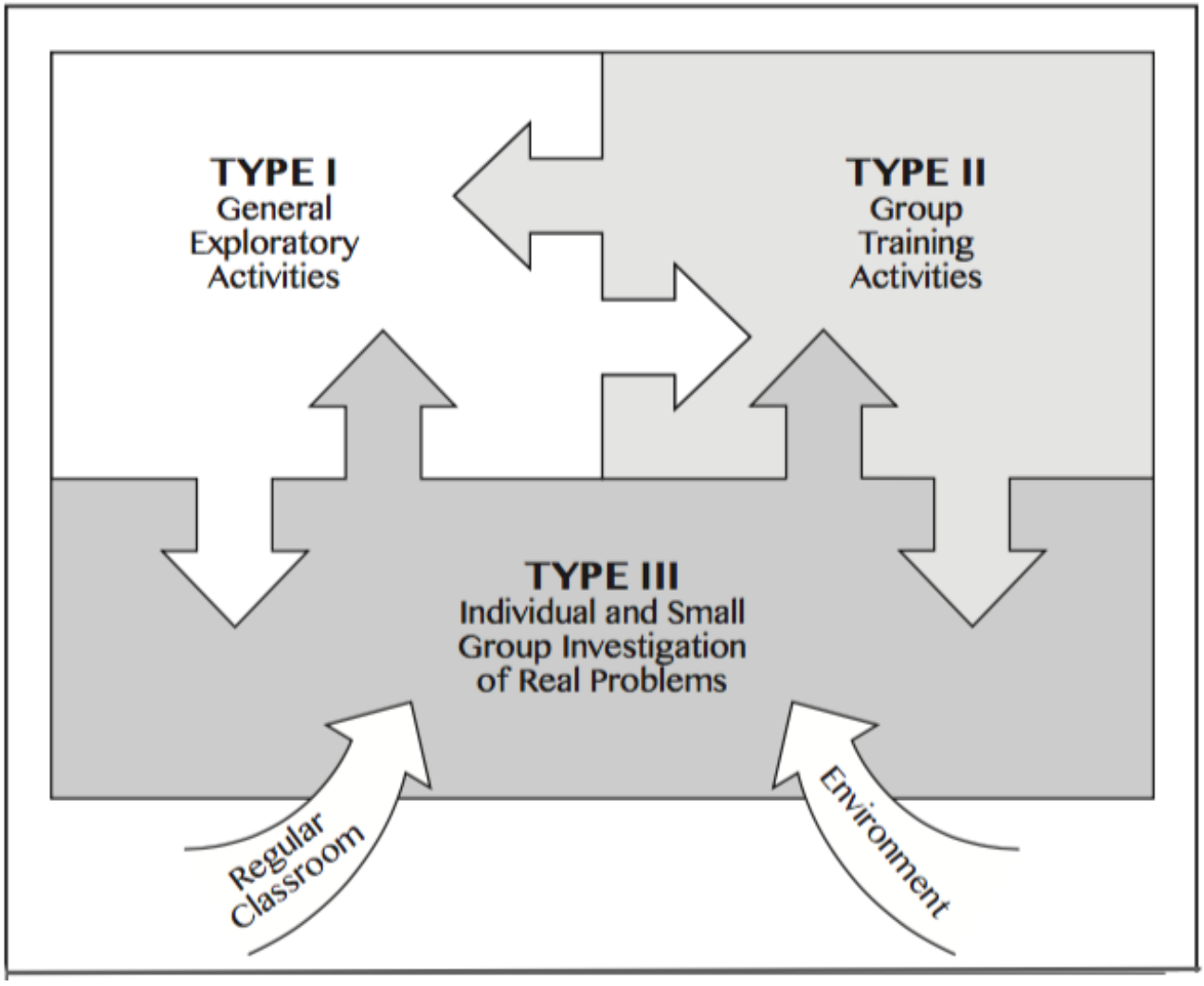


Figure 10. The Enrichment Triad Model

Type I Enrichment: General Exploratory Experiences. Experiences and activities that are designed to expose students to a wide variety of disciplines (fields of study), topics, issues, occupations, hobbies, persons, places, and events that are not ordinarily covered in the regular curriculum.

Type II Enrichment: Group Training Activities. Instructional methods and materials that are purposefully designed to promote the development of thinking Investigative, and Personal Skills.

Type III Enrichment: Individual and Small Group Investigations of Real Problems. Investigative activities and artistic productions in which the learner assumes the role of a first-hand inquirer; the student thinking, feeling, and acting like a practicing professional.

2.6 Enrichment Clusters

The goal of the SEM is enriching the school experience with creative activities that enable students to explore their skills and talents. Enrichment clusters focus on the acquisition and development of practical skills and offer students the opportunity to engage in real activities, with the aim of creating an original product to be presented to an authentic public.
Enrichment clusters are transversal groups of students who share a common interest. They meet weekly to pursue their interests in a dedicated space and in a specially designated school timetable.
Group work is supported by an adult, a mentor who shares a particular interest and has a certain degree of competence and experience in the subject.
Enrichment clusters usually last one semester.

The six questions that guide the planning of the enrichment clusters are:

1. What do people with an interest in this area do?
2. What kind of products or services do they provide?
3. What methods do they use to make their products?
4. What resources and materials do they need?
5. How and to whom do they communicate the results of their work?
6. How do they move to have a positive impact on a selected audience?

The only requirement to participate in these activities is personal interest.

There is no scheduled lesson

The time dedicated to the activities is on a weekly basis

Cross groups

Projects are selected by the students

Methodology used: Practitioner / Apprentice

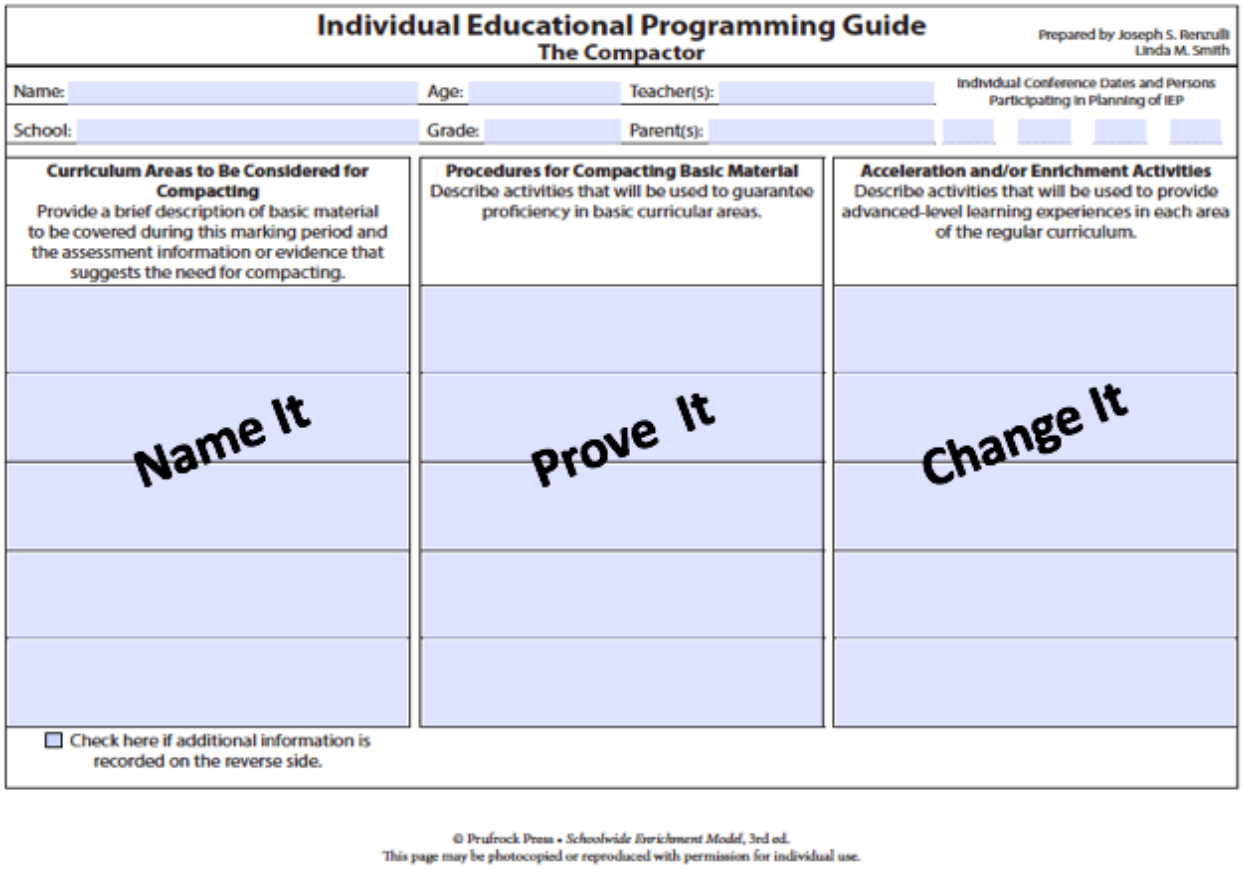
The teacher has a role of Guide or Mentor

Focus on: Product – Public

2.7 Curriculum Compacting

The SEM offers a series of curriculum modification techniques that canadjust levels of required learning so that all students are challenged, increasing the number of in-depth learning experiences, and introducing various types of enrichment into regular curricular experiences.

Curriculum Compacting is an instructional differentiation technique designed to make appropriate curricular adjustments for students in any curricular area and at any grade level, by (a) defining the goals and outcomes of a particular unit or segment of instruction, (b) determining and documenting which students already have mastered most or all of a specified set of learning outcomes, and (c) providing replacement strategies for material already mastered through the use of instructional options that enable a more challenging and productive use of the student's time. An example of how compacting is used is best represented in the form, "The Compactor" that serves as both an organizational and record keeping tool (see Figure 11).



Individual Educational Programming Guide
The Compactor

Prepared by Joseph S. Renzulli
Linda M. Smith

Name: Age: Teacher(s): Individual Conference Dates and Persons Participating in Planning of IEP

School: Grade: Parent(s):

Curriculum Areas to Be Considered for Compacting Provide a brief description of basic material to be covered during this marking period and the assessment information or evidence that suggests the need for compacting.	Procedures for Compacting Basic Material Describe activities that will be used to guarantee proficiency in basic curricular areas.	Acceleration and/or Enrichment Activities Describe activities that will be used to provide advanced-level learning experiences in each area of the regular curriculum.
Name It	Prove It	Change It

☐ Check here if additional information is recorded on the reverse side.

Figure11. The Compactor (https://gifted.uconn.edu)

Teachers should fill out one compactor form per student. The form can also be used for small groups of students who are working at approximately the same level (e.g., a reading or math group). The Compactor is divided into three sections:

– The first column should include information on learning objectives and student strengths in those areas. Teachers should list the objectives for a particular unit of study, followed by data on students' proficiency in those objectives, including test scores, behavioral profiles and past academic records.

– In the second column, teachers should detail the assessment tools or procedures they select, along with test results. The pretest instruments can be formal measures, or informal measures, such as performance assessments based on observations of class participation and written assignments.

– Column three is used to record information about acceleration or enrichment options; in determining these options, teachers must be aware of students' individual interests and learning styles. Students should be offered challenging material, not regular curriculum work with more drill and practice.

The Compactor (Renzulli & Smith, 1978a) makes it possible to compact or "streamline" the regular curriculum, eliminating the contents and previously mastered material by the student, and to replace them with more advanced activities. It is an opportunity offered to all students who demonstrate the potential to carry out activities at a higher level of complexity than the peer group, in a given area of interest. For high-performance students, the curriculum can be compacted from 40 to 50%.

2.8 A How-to Guide for Talent Development

In order to provide Italian teachers with resource materials for the implementation of the SEM, the original book 'The Schoolwide Enrichment Model. A how-to guide for Talent Development (Renzulli & Reis, 2014, Prufrock Press), has been translated in Italian and will be shortly available in Italy, together with the 'Renzulli Rating Scales for rating the behavioral characteristics of superior students' (SRBCSS-R), a teacher judgment instrument appropriate for use as one measure in the identification of gifted students. The Renzulli Scales are (among) the most popular tool for identifying gifted children in the United States. This standardized instrument is completed by teachers and provides an effective method for identifying gifted children.

2.9 The Renzulli Learning System

The SEM is also equipped with an interactive online program, the Renzulli Learning System, (RLS) that aids in the implementation of the Model by matching student interests, expression styles and learning styles with a vast array of enrichment educational activities and resources, designed to enrich gifted and high potential students' learning process. The RLS has been translated into Italian by the Enrichment Specialist in order for Italian students in the research project to be able to interact with this innovative IT tool.

This software creates a personalized profile of each student's academic strengths, interests, learning styles, and preferred modes of expression. (Figure 5). The profile acts like a compass for the second step, which is a differentiation search engine that examines thousands of resources that relate specifically to each student's profile. This research-based enhancement of the SEM (Field, 2009) is an innovative online enrichment program that eliminates the teacher's load of extra work that individualized and personalized education may involve.

Database includes thousands of carefully screened, grade-level appropriate, child-safe enrichment opportunities that are regularly monitored, updated, enhanced and expanded. Students can remain with chronological age peers but have content delivered to their academic age. It's also helpful for classroom teachers, as they do not need to prepare the learning material at the advanced student's level. As Renzulli points out,

> …there should be at least one enrichment specialist in every school in the world! Although this is obviously a very ambitious goal, we will not develop the gifts and talents of our most potentially able young people unless there is a person(s) on the faculty of every school who has the task specific responsibility and specialized training that will guarantee that certain highly targeted services are provided'.[1]

Using Renzulli Learning in schools supports the development of 21st Century Learning skills every day. This software increases students' communication and collaboration skills, as well as their problem solving, critical and creative thinking.

Below an example of a student's Profile:

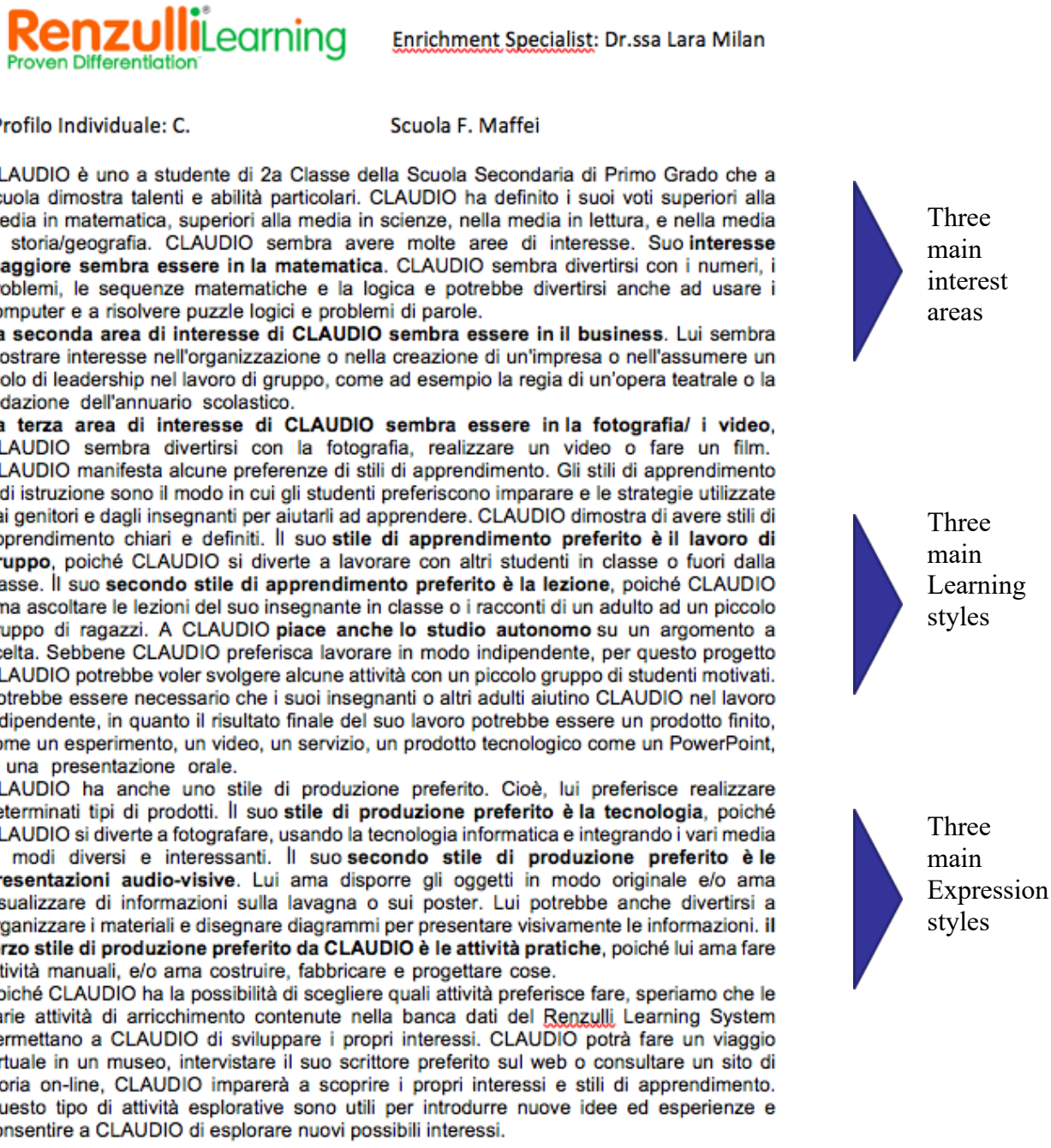


Figure 12. RLS Profiler

2.10 The Creativity Test

The newest component of the SEM is The Cebeci Test of Creativity (CTC) which is designed to identify the creative potential of individuals of all ages, including underrepresented populations. The Test measures fluency, flexibility, originality, and elaboration. The CTC is included in the Renzulli Learning platform.

CEBECI TEST OF CREATIVITY, FORM A
Renzulli Learning

United Nations Educational Report states that Creativity is seen as one of the top 21st century skill that the students should have.
Thank you for joining our scientific study of The Cebeci Test of Creativity (CTC). The student has taken Form A of the CTC. Other forms are in the development stage.
The CTC measures and reports 4 main creativity dimensions:

Fluency: The number of valid ideas. Creative people tend to have many ideas.
Originality: The infrequency of ideas. Creative people tend to have uncommon ideas.
Elaboration: The detail in the ideas. Creative people tend to have detailed elaborate ideas.
Flexibility: The number of different solution sets that are different from each other. Creative people tend not to get stuck in one set of solution set but instead create different ways of solving the problem.

Currently the CTC has standardized scores for Grades PreK to 12.
Standardization studies for other grades and age-related norms are continuing and will be available in the near future.
The CTC is now available in English, Chinese, Italian, Spanish, Turkish and Arabic. Almost all major languages will be available.

CREATIVITY REPORT

NAME:	Grade: Grade 7	Gender: Male	Age:

School:	Test Date: 6/7/2019

Evaluation for Creativity Dimensions:

	Evaluation
Fluency	Very Good
Originality	Exceptionally Good
Elaboration	Exceptionally Good
Flexibility	Good

Figure 13. CTC Creativity Report

2.11 The Renzulli Rating Scales

The Renzulli Scales for Rating the Behavioral Characteristics of Superior Students (SRBCSS-R), are a teacher judgment instrument appropriate for use as one measure in the identification of gifted students. The Renzulli Scales are America's most popular tool for identifying gifted children. Supported by 40 years of research, the Renzulli Scales are used by gifted and talented programs across the country. This standardized instrument is completed by teachers and provides an effective method for identifying gifted children.

The Renzulli Scales ask teachers to rate children in comparison to their peers on a host of these observable behaviors. The children who score high on the scales are more likely to be gifted. Using a tool like the Scales, a school can narrow the number of students who will be fully evaluated for a gifted program.

The Renzulli Scales are designed to obtain teacher estimates of a student's characteristics in the following areas:

Learning Characteristics
Creativity Characteristics
Motivation Characteristics
Leadership Characteristics
Artistic Characteristics
Musical Characteristics
Dramatics Characteristics
Communication Characteristics (Precision)
Communication Characteristics (Expressiveness)
Planning Characteristics
Mathematics Characteristics
Reading Characteristics
Technology Characteristics
Science Characteristics

SCALES FOR RATING THE BEHAVIORAL CHARACTERISTICS OF SUPERIOR STUDENTS
(Renzulli Scales)

Joseph S. Renzulli / Linda H. Smith / Alan J. White / Carolyn M. Callahan / Robert K. Hartman / Karen L. Westberg
M. Katherine Gavin / Sally M. Reis / Del Siegle / Rachel E. Sytsma

Student Information

Student's Name (or Assigned Code No.):

Date of Rating ____ / ____ / ____ (YEAR / MONTH / DAY)

Date of Birth ____ / ____ / ____ (YEAR / MONTH / DAY)

Age in Years ____

Grade ❑K ❑1 ❑2 ❑3 ❑4 ❑5 ❑6 ❑7 ❑8 ❑9 ❑10 ❑11 ❑12

Rater's Name: ____

Relationship to Student: ____

Examiner's Name: ____

School Name: ____

Summary of Scores

I Learning Characteristics
II Creativity Characteristics
III Motivation Characteristics
IV Leadership Characteristics
V Artistic Characteristics
VI Musical Characteristics
VII Dramatics Characteristics
VIII Communication Characteristics (Precision)
IX Communication Characteristics (Expressiveness)
X Planning Characteristics
XI Mathematics Characteristics
XII Reading Characteristics
XIII Technology Characteristics
XIV Science Characteristics

Directions

These scales are designed to obtain teacher estimates of a student's characteristics in the areas of learning, motivation, creativity, leadership, art, music, drama, communication, planning, mathematics, reading, technology, and science. The items are derived from the research literature dealing with characteristics of gifted and creative individuals. It should be pointed out that a considerable amount of individual differences can be found within this population, and therefore, the profiles are likely to vary a great deal. Each item in the scales should be considered separately and should reflect the degree to which you have observed the presence or absence of each characteristic. Because the 14 dimensions of the instrument represent relatively different sets of behaviors, the scores obtained from the separate scales should *not* be summed to yield a total score. In addition, we have purposefully avoided developing national norms for this instrument. If you choose to develop local norms, they should be constructed for individual schools and grade levels. Instructions for calculating local norms can be found in the *Scales for Rating the Behavioral Characteristics of Superior Students—Revised Edition: Technical and Administration Manual.*

Read each item in each scale and place an "x" in the box that corresponds with the frequency to which you have observed the behavior. Each item should be read with the beginning phrase, **"The student demonstrates . . ."** or **"The student . . .".**

Additional copies of this form may be purchased from Prufrock Press Inc., P.O. Box 8813, Waco, TX 76714-8813; Phone 800/998-2208; Fax 800/240-0333; http://www.prufrock.com

Figure 14. Renzulli Rating Scales

CHAPTER THREE

3.1 Research Question:

To what extent the implementation of The Schoolwide Enrichment Model promotes schoolwide change, enhances student creative productivity and promotes more favorable attitudes toward the entire concept of gifted education?

Can a Talent Development program be implemented in the Italian School?

This study examines the effectiveness of a two years long application of the Schoolwide Enrichment Model in two schools. Subjects consisted of 70 middle school students, 5 teachers, 11 mentors, 2 principals and one vice-principal.

In order to overcome some of the problems that historically have drawn criticism to the field of gifted education, in recent years there has been a trend promoting more flexible approaches to both identification and programming. This trend is undoubtedly the result of recent research on the nature of human abilities (e.g., Sternberg, 1982; Gardner, 1983; Bloom, 1985) and a realization that some of the activities recommended for the gifted can successfully be applied to larger segments of the school population (Renzulli, 1977; Reis & Renzulli, 1982; Shore & Tsiamis, 1985; Feldman, 1983; and Birch, 1984).

The purpose of this study is to examine the effects of a programming model that was specifically designed to apply some of the pedagogy of gifted education to the overall process of schoolwide enrichment. The model employed as the experimental treatment in the study is the *The Schoolwide Enrichment Model* (*SEM,* Renzulli & Reis, 2014), and the experimental design consisted of both qualitative and quantitative research methods. The study compared differences between a control group and several groups participating in the two years long *SEM* programs. The specific factors examined were student attitudes toward learning, teacher attitudes toward teaching, the extent and quality of students' creative productivity, and the processes involved in the implementation of *SEM.* Two overall goals of the study were (1) to determine if a school's participation in this type of program would result in specific and quantifiable indicators of schoolwide change, and (2) to examine whether or not such participation would result in more favorable attitudes toward the entire concept of gifted education.

3.2 Methods: Subjects, Site Selection

The subjects in this study consisted of 68 students in grades 6-7-8, 5 middle school teachers. The student sample represented 28% of the total population of approximately 1,200 pupils enrolled in the 2 participating schools. The student sample was stratified according to grade level and selected from all grades 6-7-8 classrooms on the basis of teachers volunteering to be involved in the research study. The teacher sample included 5 teachers, 3 in Trissino school and two in Maffei school. This is because the Italian school system does not provide any G&T program and regular classroom teachers do not receive any training on enrichment programs. Personalized instruction is provided only to children with learning disabilities by trained teachers.

The population involved in the research study consisted in 68 students (45 7th graders and 25 8th graders) of three Middle School Classes of two urban Schools in Vicenza:

G. G. Trissino Middle School - IC8 Vicenza

F. Maffei Middle School, IC1 Vicenza

Criteria for inclusion: all students have been offered enrichment activities, including students with learning disabilities. At the beginning of the study, none of them were identified as gifted.

3.3 The Enrichment Specialist

SEM programs must have specialized, trained personnel, namely Enrichment or Gifted Education Specialists, and teacher training is among its non-negotiables.

Enrichment teaching is an approach that differs from the traditional, didacting teaching that occurs in most schools and implies a systematic set of strategies that is designed to promote active engagement in learning on the parts of both teachers and students. The Enrichment Specialist (or Specialist in Gifted Education), is a key figure for the implementation process of any program for talent development and he/she receives a post-graduate Degree in Gifted and Talented Education.

In a SEM program, the Enrichment Specialist receives special training in the Model as his/her goal is creating a special 'pòlace' in the regular curriculum and in the school schedule to guarantee that every student will have the opportunity to participate in SEM different approach to learning.

The responsibilities of the Enrichment Specialist, (a professional figure that does not exist in the Italian School System), are quite clearly described in the SEM book and can be briefly summoned up as follows:

> develop, plan and implement a creative and enriching program of instruction that requires the maximum use of higher-level thinking skills, problem solving techniques and creative thinking skills.

Help teachers develop classroom activities and select materials for meeting the needs of gifted and talented students.

Initiate, facilitate, and conduct in-service programs or activities for staff and administration.

Develop and implement parent involvement activities relating to gifted and talented students.

Keep informed on and disseminate information about other gifted and talented programs, instructional delivery strategies, instructional materials and recent research.

Maintain a cumulative file on each gifted/talented student.

Annually evaluate the gifted/talented program and provide a report to the Director of Instruction.

Assist in the identification and placement of each gifted/talented student.

Perform additional duties as assigned by the Director of Instruction.

Collaborate with other classroom teachers in the development, evaluation, and revision of the enrichment program.

The enrichment specialist will communicate on a regular basis with building principals in the assigned district and with parents of the children enrolled.

Provide ongoing and regular communication with building principals, teachers, and parents regarding classroom activities and student progress.

Maintain accurate and complete student records as required by law, district policy, and administrative regulations.

Enforce administrative policies and rules governing students.

Attend open houses and other parent meetings regarding the enrichment program as directed.

Seek opportunities to improve skills and grow professionally; attend all required meetings and in-services.

3.4 Population involved in the first year of the research study

The SEM Project involves 3 Middle School classes, 46 6th grade students and 23 7th grade. The total of participants was 68 students, (36 males and 32 females). In particular, the schools involved in the project are:

G. G. Trissino Middle School - IC8 Vicenza;
F. Maffei Middle School, IC1 Vicenza.

	Trissino Middle School	Maffei Middle School	
Classes	**6th Grade A**	**6th Grade F**	**7th Grade B**
Participants	25	20	23
Male	12	14	10
Female	13	6	13
TOT Participants	68		

Figure 15: Population involved in the first year of the research study

Population involved in the second year of the research study

The second year of SEM implementation involves only 2 Middle School classes at Maffei School, 46 6th grade students and 23 8th grade. The total of participants was 68 students, (36 males and 32 females). In particular, the schools involved in the project are:

G. G. Trissino Middle School - IC8 Vicenza;
F. Maffei Middle School, IC1 Vicenza.

	Maffei Middle School	
Classes	**7th Grade F**	**8th Grade B**
Participants	22	23
Male	16	10
Female	6	13
TOT Participants	45	

Figure 16: Population involved in the second year of the research study

3.5 Criteria for inclusion of students

The SEM provides general enrichment opportunities for *all* students, simultaneously ensuring the opportunities for more advanced work for highly able and motivated students. All students involved in the project participate in the enrichment clusters, as well as in Type I, II and III enrichment activities. Moreover, the model has been proven to be particularly effective in accommodating the needs of special needs students, proving its inclusive approach to talent development.

3.6 Assessment instruments provided by LabTalento

LabTalento provided a cognitive evaluation, (Raven Progressive Matrices, Raven, 1958, 1984). Because of their independence of language and reading and writing skills, and the simplicity of their use and interpretation, the test has been administrated as a screening measure of aspects of general ability and were administered to students collectively and simultaneously in class. The evaluation of the students was carried out in October 2016 and data analysis was carried out by psychologists from LabTalento who treated data on a collective and anonymous basis to provide the researcher just with a general overview of the class as a whole.
Parents participating in the project signed a written consent for the privacy and use of the data for research purposes.
All of the questions on the Raven's progressives include visual geometric design with a missing piece. The test taker is given six to eight choices to pick from and fill in the missing piece. In each test item, the subject is asked to identify the missing element that completes a pattern. Many patterns are presented in the form of a 6×6, 4×4, 3×3, or 2×2 matrix, giving the test its name.
The *Standard Progressive Matrices* (SPM) (1958), for students aged 12 and 13, have been administered collectively to each class. The test requires approximately 60 minutes to complete.

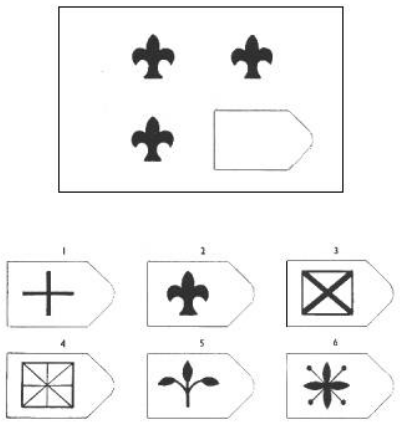


Figure 17: Raven's Progressive Matrices

Each student receives a sheet of answers and must write down the answer he or she considers to be correct.
The coding of both types of Matrices takes place according to the instructions in the manual:

• 0 points for each wrong answer or omitted
• 1 point for each correct answer.
The total scores obtained for each individual child is converted into a percentile, identifying it within a table with standard scores referring to a normative population. This percentile is given by the crossing of the score obtained in the test and by the precise age (years and months) of the test taker.

Trissino Scores

	HIGH ≥26	AVERAGE from 25 to 4	LOW ≤3	INVALID
Number of students in 6th Grade	4	20	0	1

Maffei Scores

	HIGH ≥26	AVERAGE from 25 to 4	LOW ≤3	INVALID
Number of students in 6th Grade	1	14	0	4
Number of students in 7th Grade	2	18	1	1

Figure 18. Total scores of Raven's Matrices

7th GRADE TRISSINO

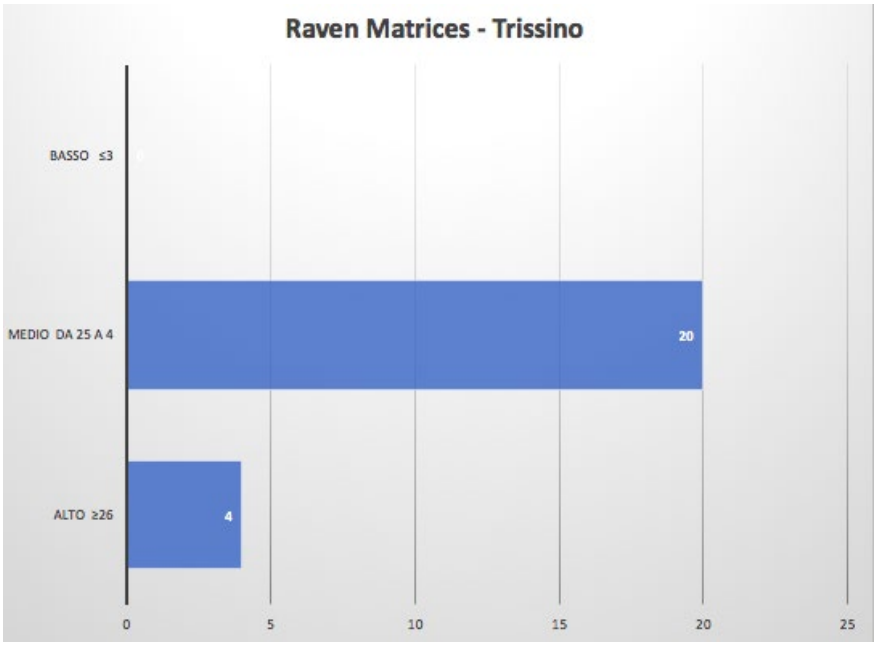


Figure 19. Trissino School Y7 Scores

6th GRADE Maffei

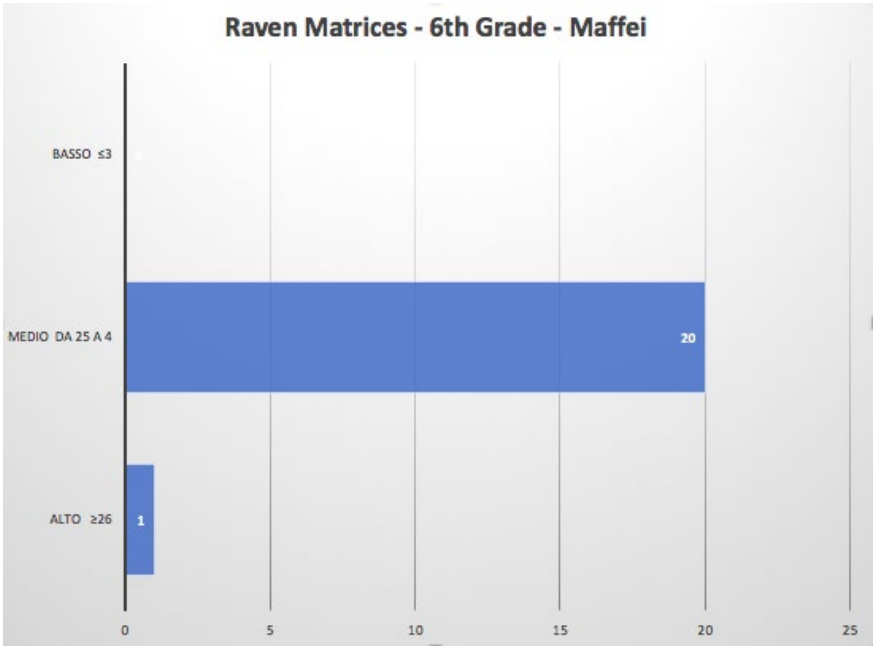


Figure 20. Maffei School Y6 Scores

7th GRADE Maffei

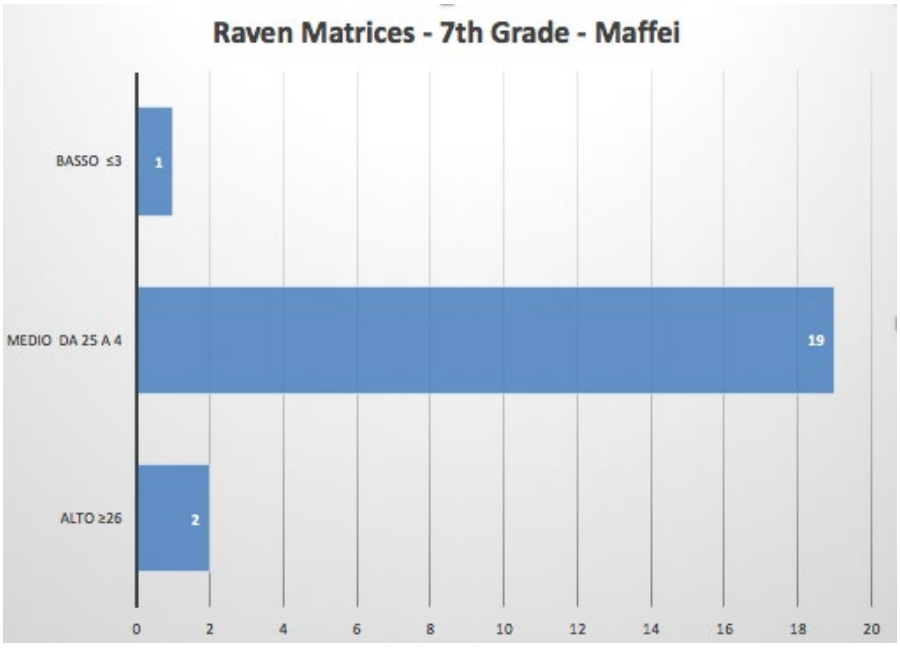


Figure 21. Maffei School Y7 Scores

3.7 Treatment Schools

In order to be selected for participation in this study, school officials had to agree to a specified set of enrichment programming procedures set forth in the *Schoolwide Enrichment Model* (Renzulli & Reis). It was also necessary for each school to accept an enrichment resource teacher on at least a half- time basis. In all cases, written agreement was obtained from administrations and boards of education as further assurance that actual *SEM* implementation would take place. Each site also agreed to permit the researcher and one objective and the supervision of Dr. Zanetti as an independent observer to visit in order to ensure that actual implementation was taking place. Participating schools were not expected to identify students who were of above average ability in one or more areas of performance or potential. Nonetheless, a set of identification tools to create individual profiles of the students involved in the research study were adopted, such as achievement test scores, Raven Matrixes, the Renzulli Learning System, the Renzulli Rating Scales, teacher nominations, student interests, and other procedures set forth in the model.

One of the first task of the Enrichment Specialist was to create two Enrichment Teams, one in each school.

Trissino School Team was formed of three teachers:
Language Arts teacher,
English teacher,
Learning disabilities Teacher

Maffei School Team was formed of the vice-principle and two teachers:
Language Arts teacher,
Math teacher

3.8 Control Group

Although the *Schoolwide Enrichment Model* encompasses entire school units, only a very limited number of teachers participated in the research. Nonetheless, in order to protect control populations from contamination by aspects of the *SEM* treatment, schools that served as control group were located in the district and belonged to the world of public education. Treatment and control schools were selected because they had similar socioeconomic levels, school attendance, staff educational levels, and needless to say, all had the same regular education programs.
A great hesitancy on the parts of administrations to serve as control sites was encountered. Moreover, school administrators were unwilling to experiment with the program model employed as treatment.

CHAPTER FOUR

4.1 Chronological Planning of SEM Activities: First Year Implementation at Trissino School

During the first year of the implementation of the Program, the Enrichment Specialist has provided in-service and literature on the model for all administrators in the school, making sure that all instructional staff are informed on the definition, identification system, programming model, and their responsibilities in the program. Apart from the on-site training, the members of Trissino Middle School Enrichment Team attended also a 6 months course by LabTalento: Prof. Zanetti provided a 3 months training on the emotional and educational needs of gifted children, while during the remaining 3 months Dr Lara Milan provided a full immersion course on the Schoolwide Enrichment Model. Once the training was provided to the faculty, the enrichment specialist has organized two Enrichment Teams, one for each school involved in the project, and meetings have been scheduled to plan future activities, and to collect financial and human resources to carry out enrichment activities.

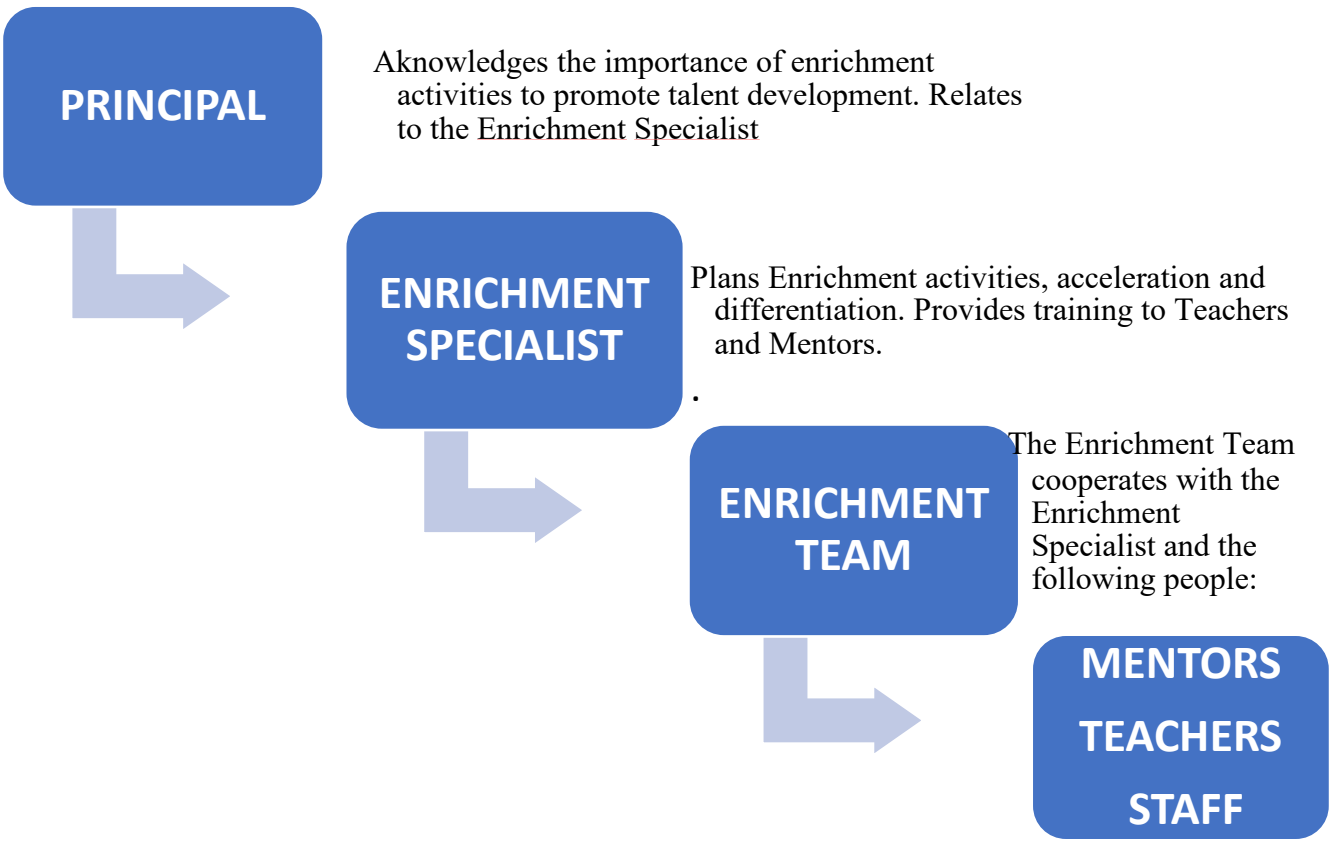


Figure 22. SEM Organization at Trissino School

The Enrichment Specialist plays a key role in the implementation of the program. The Enrichment Specialist is a professional figure who has earned a Graduate Certificate in Gifted and Talented Education. The Enrichment Specialist assists with the identification of students who qualify for enrichment programs; develops a strong enrichment curriculum; and implements a sound program of instruction for qualified students. The enrichment specialist shares ideas for improving the education of qualified students with others; promotes the growth and development of the enrichment program; and provides creative, enriching activities and projects for students enrolled in the program. The enrichment specialist communicates on a regular basis with building principals in the assigned district and with parents of the children enrolled.

But what determines the success of the SEM implementation is a shared commitment to a schoolwide transformation, and Enrichment Teams play a major role in it. Although there are many enrichment and acceleration options in the SEM, the enrichment specialist may choose what to do first in order to meet the educational needs of students, as a shared decision-making process is the best way to begin. Therefore, much of the Enrichment Specialist's initial time and efforts aimed at developing a sense of ownership of the model by involving teachers, administrators, parents, and students, and at creating a community/faculty resource pool. The enrichment specialist has arranged a meeting to present the program to parents and to introduce them to the Enrichment Team. A PowerPoint presentation was presented, in which a brief description of the history of Gifted Education was given, as the Italian School System does not provide any talent development programs in either private or public schools.

The School Principal agrees on the importance of talent development programs in schools to meet the diverse educational needs of students. The Principal hires the Enrichment Specialist who plans activities and implement strategies to promote talent development in classrooms, such as: Enrichment, Acceleration, Differentiation. The Enrichment Specialist can also provide training to Teachers and Mentors who do not have a special training on this area. The Enrichment Specialist forms an Enrichment Team to cooperate with.

4.2 Steps in the implementation process

Figure 23. Steps in the Implementation Process – First Year at Trissino School

4.3 Six Steps to Implementing Enrichment Clusters

Enrichment clusters offer and students the opportunities to explore their interests and develop their talents. The main characteristic of the enrichment clusters is that they are non-graded groups in which students share a common interest and work toward a shared product or service. Because students' common interests are the basis of enrichment cluster grouping, assessing their interests has been a priority.

Step 1: Assess the Interests of Students and Staff

The heart of the Schoolwide Enrichment Model is the identification and nurturance of student interests, because talent flows from interest development (SEM, pag 216). The SEM Model provides plenty ready-to-use forms to survey student's unique interests and talents. Therefore, before developing an enrichment cluster program, it was essential to first assess the interests and talents of students. The Enrichment Specialist was able to identify present or potential student interests using a variety of SEM interest

assessment instruments. The following tools have been used with all students participating in the project (See Figure 10):

If I Ran the School
The Interest-A-Lyzer for Secondary School
Parent's Questionnaire
The Profiler

(see Figure below), and at the beginning of the school year. Questionnaires have been distributed to parents in order to find out their knowledge of the many gifts and talents their children may display at home during their free time. Some of the instruments include:

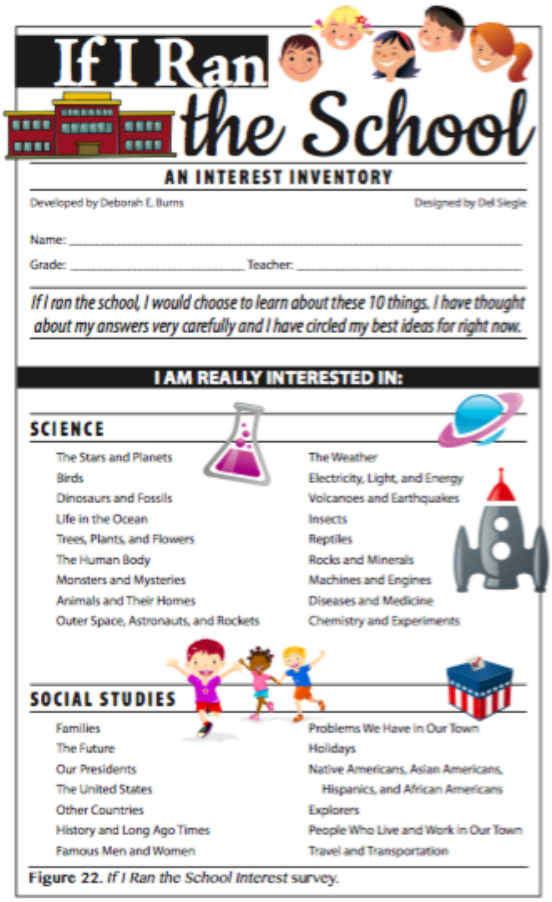


Figure 24. If I Ran the School

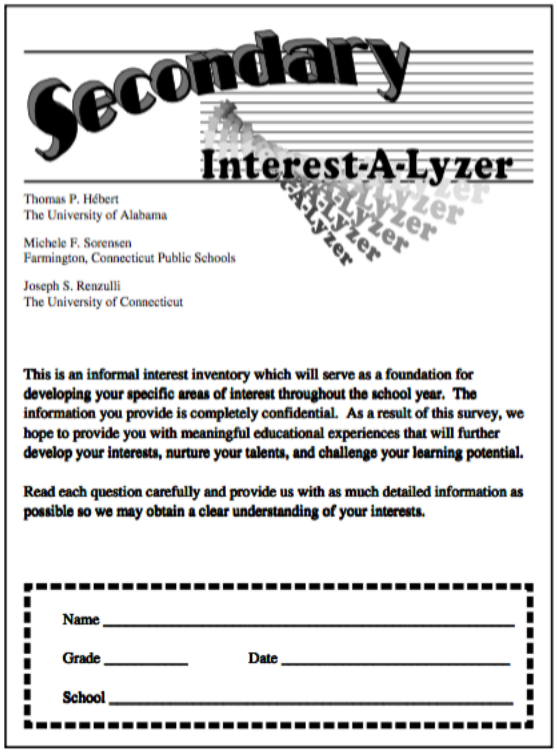


Figure 25. Interest-A-Lyzer

All the data collected has been computed into files that will contribute, together with previous year student's academic results, to creating a student's profile. This information can be recorded in the Total Talent Portfolio and used to develop and design educational opportunities that nurture students' talents

and interests rather than focusing on remedial strategies. Indeed, the most unique feature of the Total Talent Portfolio is that it focuses on students' strengths.

Things My Child Likes to Do

TO: Parents of All Students
FROM: Lara Milan, Enrichment Specialist
DATE: October 23rd, 2017

Dear Parents,

one of the major goals of our Schoolwide Enrichment Program is to provide each student with an opportunity to develop his or her strengths and talents. We would also like to supplement our basic curriculum to offer your child experiences that are challenging, enjoyable, and of personal interest.

Although the work your child does in school provides a lot of information on his or her strengths and interests, activities your child pursues at home will help us develop ways to further enrich his or her school program. For this reason, we are asking you to complete the attached questionnaire.

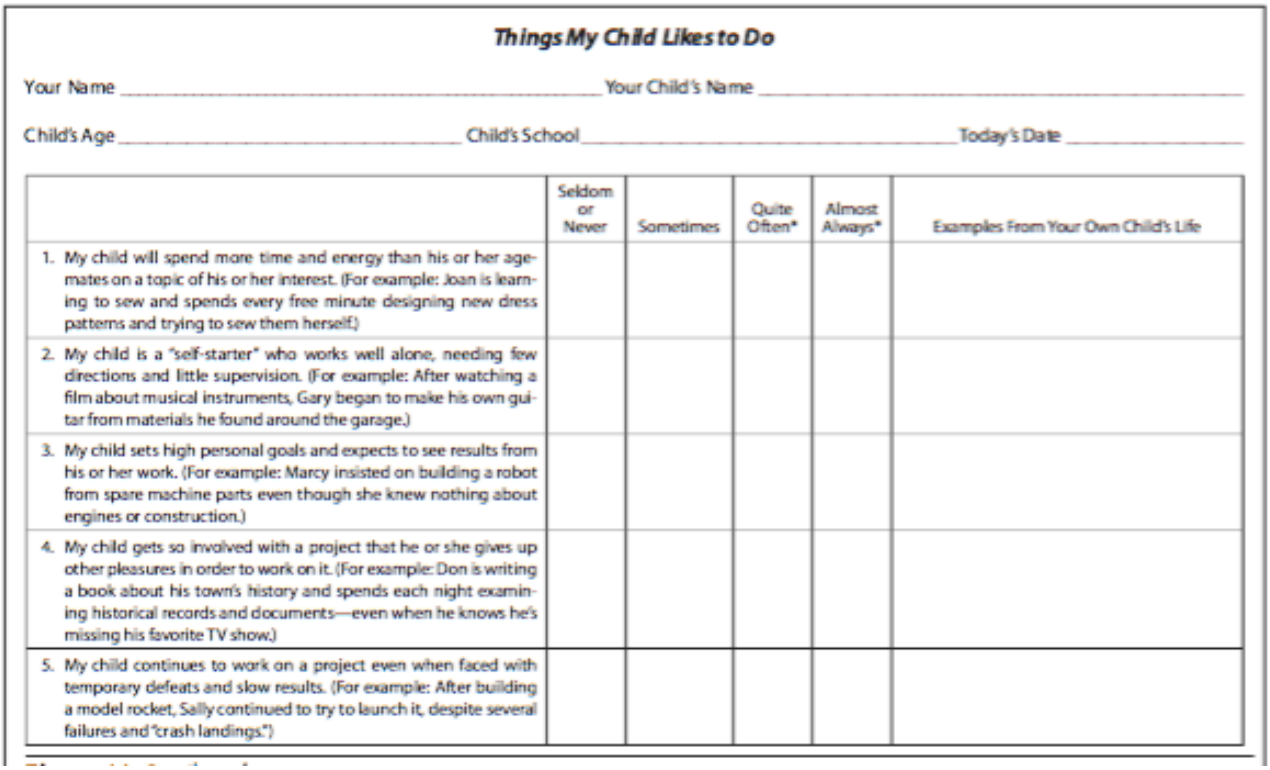
Each of the items on the questionnaire deals with a general type of interest or activity you may or may not have seen in your child. These might be the result of school assignments, extracurricular activities such as Boy Scouts or home activities. To help clarify the items, we have included an example. You should rate your child on the general item, not on the example. If possible, also include specific examples of your child's interests or activities.

If you have any questions, please feel free to contact me. I appreciate your help in providing the best possible educational program for your child.

Sincerely,

Lara Milan

Figure 26. An open letter to Parents



Things My Child Likes to Do

Your Name _____ Your Child's Name _____

Child's Age _____ Child's School _____ Today's Date _____

	Seldom or Never	Sometimes	Quite Often*	Almost Always*	Examples From Your Own Child's Life
1. My child will spend more time and energy than his or her age-mates on a topic of his or her interest. (For example: Joan is learning to sew and spends every free minute designing new dress patterns and trying to sew them herself.)					
2. My child is a "self-starter" who works well alone, needing few directions and little supervision. (For example: After watching a film about musical instruments, Gary began to make his own guitar from materials he found around the garage.)					
3. My child sets high personal goals and expects to see results from his or her work. (For example: Marcy insisted on building a robot from spare machine parts even though she knew nothing about engines or construction.)					
4. My child gets so involved with a project that he or she gives up other pleasures in order to work on it. (For example: Don is writing a book about his town's history and spends each night examining historical records and documents—even when he knows he's missing his favorite TV show.)					
5. My child continues to work on a project even when faced with temporary defeats and slow results. (For example: After building a model rocket, Sally continued to try to launch it, despite several failures and "crash landings.")					

Figure 27 – Survey 'Things my Child likes to do'

The Renzulli Learning System

Access to the *Renzulli Learning System* made the implementation of the Model so much easier. Students involved in the research project have been given the opportunity to take the Renzulli Profiler, which consists of an online diagnostic assessment that takes about 30 minutes. The Profiler was translated in English by the Enrichment Specialist in order to enable Italian students to fully understand the content. It was extremely helpful to have the profiler translated in many different languages, as many students are recent immigrants from several countries, including Africa, China.

The profiler provides a detailed description of students three main interests, learning styles and expression styles.

A meeting with parents was organized in order to illustrate the different enrichment activities arranged on the bases of the surveyed interests.

The test results of the profile were given to parents at the beginning of the school year, during which the main interest areas were illustrated as follows:

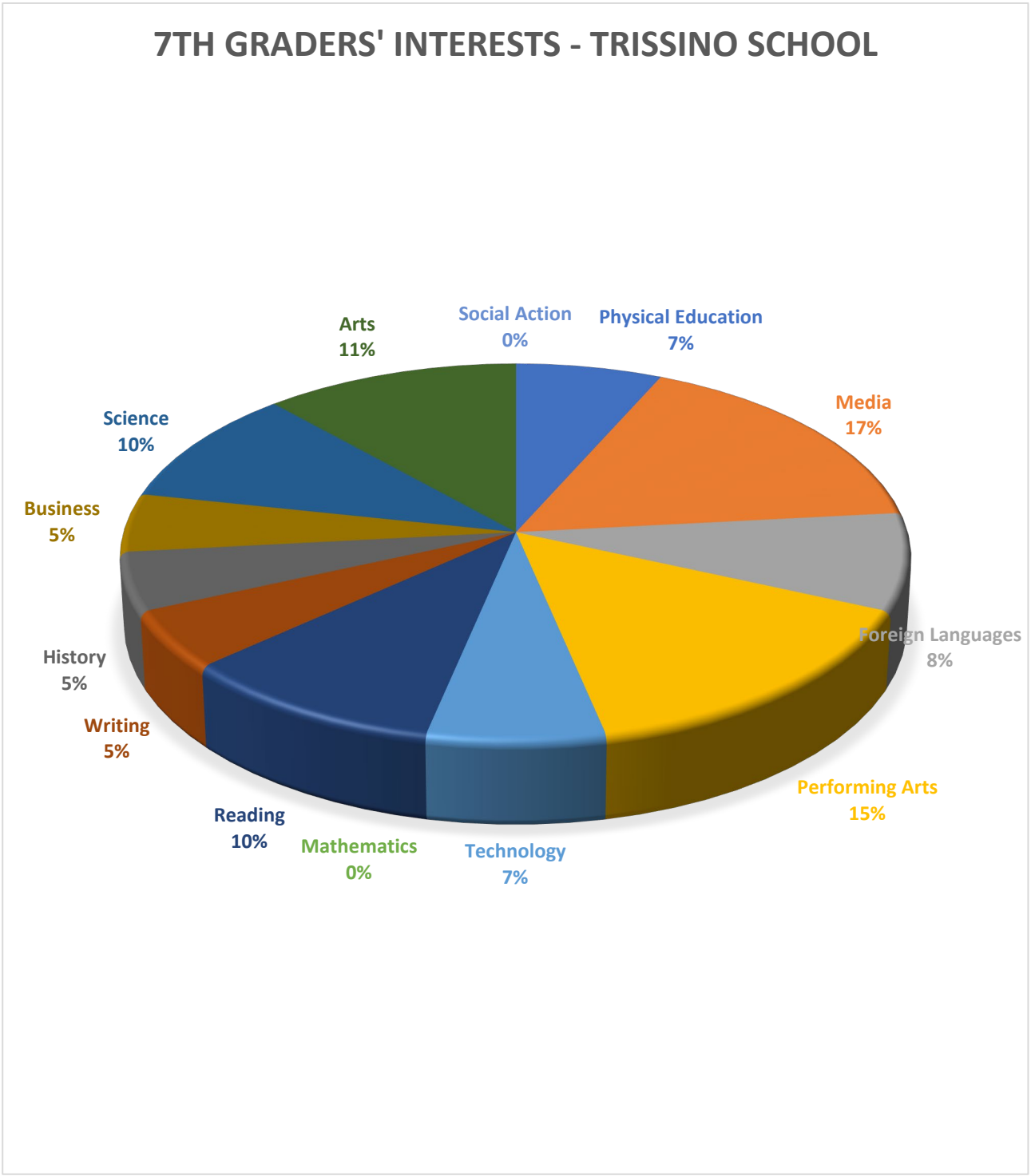


Figure 28. Students' interests at Trissino School

Step 2: Identify a Time, Schedule, and Place for Enrichment Clusters

Because the SEM involves a variety of enrichment experiences for all students, one of the primary responsibilities of the enrichment specialist is to help develop a schedule that allows schoolwide enrichment to occur regularly (SEM pag. 111). Before the beginning of the school year, a specific time has been identified for cluster activities. A number of classrooms in both schools have been assigned to the enrichment activities for teachers and mentors to carry out several activities at the same time. The length of the enrichment cluster has been planned from January to May, for two hours on a weekly base.

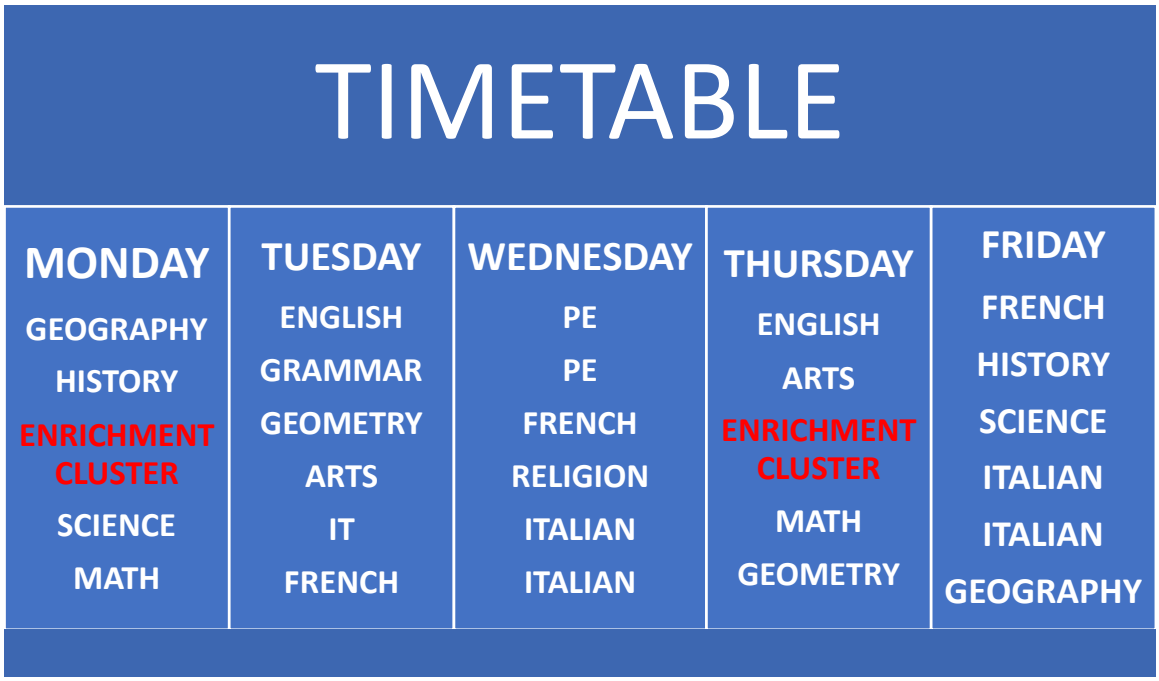
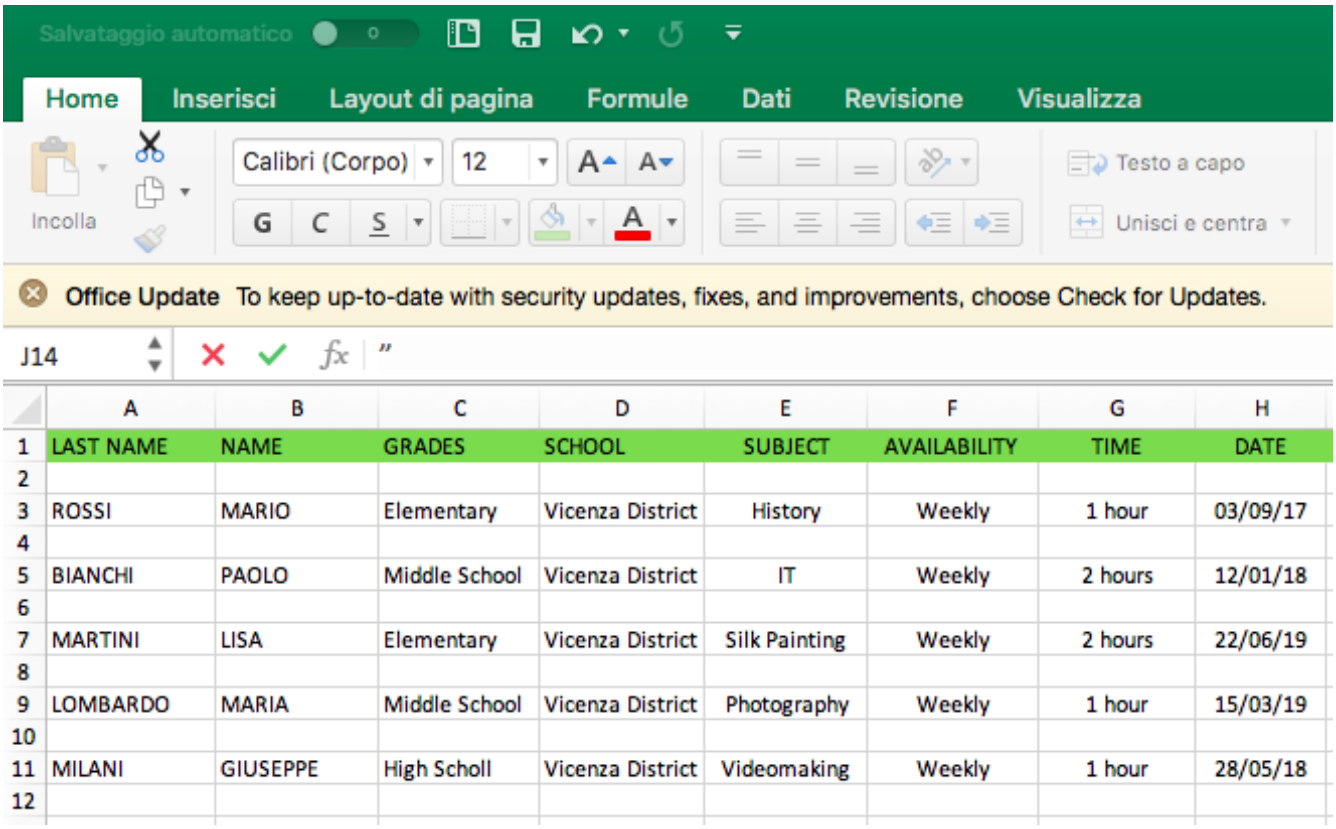


Figure 29 – Schedule for Enrichment Clusters

Step 3: Identify Facilitators of the Enrichment Clusters

Once interests have been compiled and a schedule has been created, mentors and facilitators within popular interest areas should be identified. Because Italians strictly regulate school access to people, the Enrichment Specialist preferred to rely primarily on teachers and staff to facilitate successful clusters. Introducing other human resources, including parents, community people, local businesses, and public agencies seemed to require too much bureaucracy that may have undermined the whole process. External cluster facilitators might be recruited starting from the second year. A quick survey among faculty has been carried out, and data recorded on an excel file for future reference.



	A	B	C	D	E	F	G	H
1	LAST NAME	NAME	GRADES	SCHOOL	SUBJECT	AVAILABILITY	TIME	DATE
2								
3	ROSSI	MARIO	Elementary	Vicenza District	History	Weekly	1 hour	03/09/17
4								
5	BIANCHI	PAOLO	Middle School	Vicenza District	IT	Weekly	2 hours	12/01/18
6								
7	MARTINI	LISA	Elementary	Vicenza District	Silk Painting	Weekly	2 hours	22/06/19
8								
9	LOMBARDO	MARIA	Middle School	Vicenza District	Photography	Weekly	1 hour	15/03/19
10								
11	MILANI	GIUSEPPE	High Scholl	Vicenza District	Videomaking	Weekly	1 hour	28/05/18
12								

Figure 30. Facilitators data bank

Step 4: Provide a Facilitator Orientation

Once cluster facilitators have been identified, a mini-training course was provided. The Enrichment Specialist introduced them to the basic principles of the model, making clear they were not supposed to "teach" students, but rather to be a guide on the side, promoting student-directed experiences and facilitating hands-on activities.

Step 5: Register Students by Placing Them in Clusters of High Interest

The main reason that enrichment clusters are successful engaging learning experiences is that students freely choose to enroll in enrichment clusters in which they have an interest. In order to enable students to make the right choices, a poster listing the clusters available and their content was produced by the Enrichment Clusters and hung on the school corridor for a full week before registering and scheduling students. A copy of the poster was sent home, so students were able to discuss their choices with their parents. Parents were invited to attend a meeting, during which the Enrichment Specialist described in detail the many exciting opportunities offered to students.

Step 6: Celebrate Cluster Successes

At the end of the first year, the Enrichment Specialist arranged a celebration by arranging a Skype interview with SEM Outreach Coordinator at the University of Connecticut, Dr Nicole Waicunas. She was able to interview students, review the original products students completed to date, and meet and compliment the teachers and mentors who contributed to the successful clusters, giving them a sense of school pride and sense of accomplishment. The Skype meeting was recorded for research purposes and sent to Dr Joseph Renzulli, one of the two authors of the SEM, was able to view it.

Celebration of clusters will take place at the end of the second year, and an important avenue will be arranged for the sharing of student products and services with an authentic audience, formed by parents, the community, teachers, administrators, and the board of education members. Newspaper reporters will be invited, and in order to generate community excitement about gifted education programs in schools, rewarding the efforts of the many teachers, mentors, administrators who participated in this new project. It is the first attempt in Italian Public Schools, and those who were involved should be acknowledged as true pioneers in this field.

4.4 Designing the Enrichment Clusters

The implementation of the SEM Model represents the first attempt to adopt a model for talent development in Italian State Schools and, in order to prevent any critics and misconceptions about American and European Educational Systems, the researcher decided to include in this pilot project the 8 Key Competences for Lifelong Learning as recommended by the European Commission.

The European Reference Framework on key competences for lifelong learning was defined and adopted in 2006. The framework identifies eight key competences and transversal themes combining knowledge, skills, and attitudes, all of which are considered as necessary for personal fulfilment and development, active citizenship, social inclusion, and employment. The European Union has identified 8 Key Competences that enable every citizen to adapt to changes of society. The 8 Key Competences are the following:

Communication in the mother tongue;
Communication in foreign languages;
Mathematical competence and basic competences in science and technology;
Digital competence;
Learning to learn;
Social and civic competences;
Sense of initiative and entrepreneurship; and
Cultural awareness and expression.

The key competences are all considered equally important, because each of them can contribute to a successful life in a knowledge society.
Although the idea of the merging of these two different approaches seemed to be a challenging task at first, including them in the Enrichment Clusters has been an easy and smooth task as these 8 competences interlock with the SEM pedagogical principles, which challenge students to become creative productive thinkers ready to face the challenges of the future. Once again, the SEM has proven to be a very flexible model which does not replace or interfere with existing programs or state regulations. Below a schematic description of enrichment clusters and related key competences.

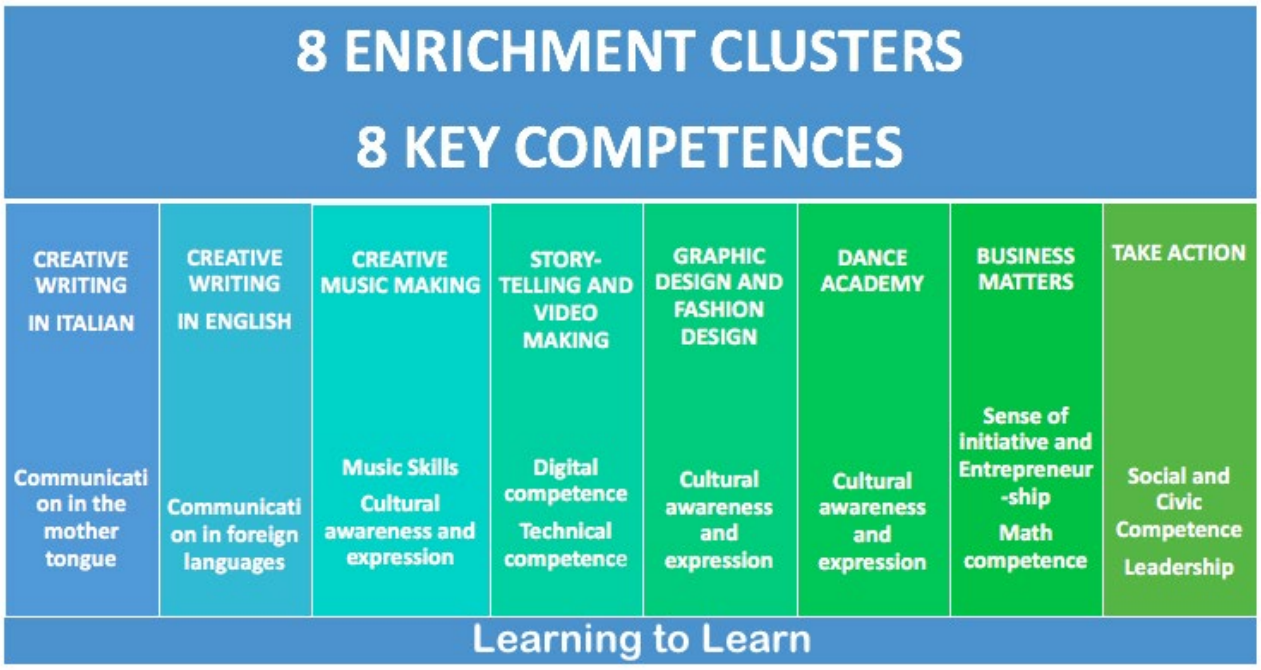


Figure 31. Merging of SEM Enrichment Activities with the 8 Key Competences

4.5 Enrichment Clusters at Trissino School

As suggested by the model, the Enrichment Specialist started a pilot Enrichment Cluster program during the second half of the school year at Trissino Middle School.
The main idea that guided the design of the enrichment activities at Trissino School was the composition of School Anthem, which enabled students to develop a sense of belonging and identity to the School, highlighting the importance of the Institute as a place for aggregation, personal and cultural growth.
This fun, creative and stimulating musical project involves students in the process of creative writing, musical composition, performance, recording, video production techniques of the school's anthem. It also demands interpersonal and intrapersonal abilities, communication skills and problem solving. The musical composition of the anthem promotes social cooperation, the development of motor skills, confidence in the execution and expression of ideas and feelings, increasing one's awareness and self-esteem.

CREATIVE WRITING IN ITALIAN

Students participated in creative writing activities to improve their writing and creativity and produced the text of the School Anthem in Italian. They had the opportunity to explore different genres, including poetry, journalism, web writing, storytelling and composition of musical pieces.

Competences: Communicating in the Mother Tongue - Creative Writing

INNO SCUOLA IC8 (Istituto Comprensivo 8)	
Pianifica il futuro Sogni per me e per te Pianifica il futuro. Obiettivi per noi e per tutti Noi I Noi C Noi IC8 Noi 8 Ritratto dei giorni passati Specchio dei giorni futuri Ripresa dei giorni presenti Noi I Noi C Noi IC8 Noi 8	Noi I Noi C Noi IC8 Noi 8 Siamo tutti uniti Siamo tutti amici Vola sul tuo prato Coltiva la tua nuvola Segui il tuo custode Stacca le tue radici Noi I Noi C Noi IC8 Noi 8

Figure 32: Lyrics in Italian

CREATIVE WRITING IN ENGLISH

Listening to songs in English makes it possible to develop linguistic skills and to acquire foreign language skills such as: strengthening of grammatical structures, widening of the lexicon, facilitate pronunciation. In writing the text of the School Anthem in English, the students understood that the two linguistic systems do not have a biunivocal correspondence and the necessary lexical and morpho-syntactic changes were made. They produced a very meaningful English text.

Competences: Communication in a Foreign Language- Creative Writing

ROUGH DRAFT

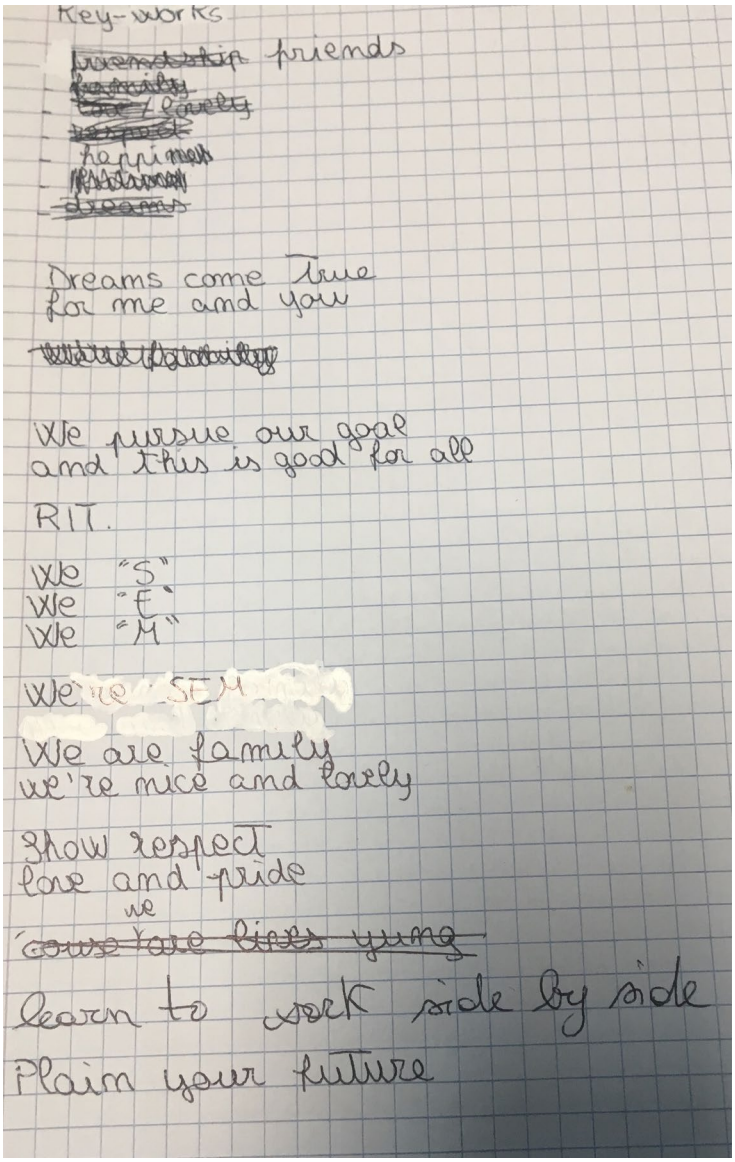


Figure 33 –Lyrics in English

SEM ANTHEM

Dreams come true for me and you
We pursue our goals
And this good for all
This good for all

We "S"
We "E"
We "M"
We are SEM

We "S"
We "E"
We "M"
We are SEM

We are family
Nice and lovely
Show respect
Love and Pride
Learn to work
Side by side
Learn to work
Side by side

We "S"
We "E"
We "M"
We are SEM

We "S"
We "E"
We "M"
We are SEM

Plan your future
'cause you're super
We'll be together
Always and forever
Together we strive
Together we shine

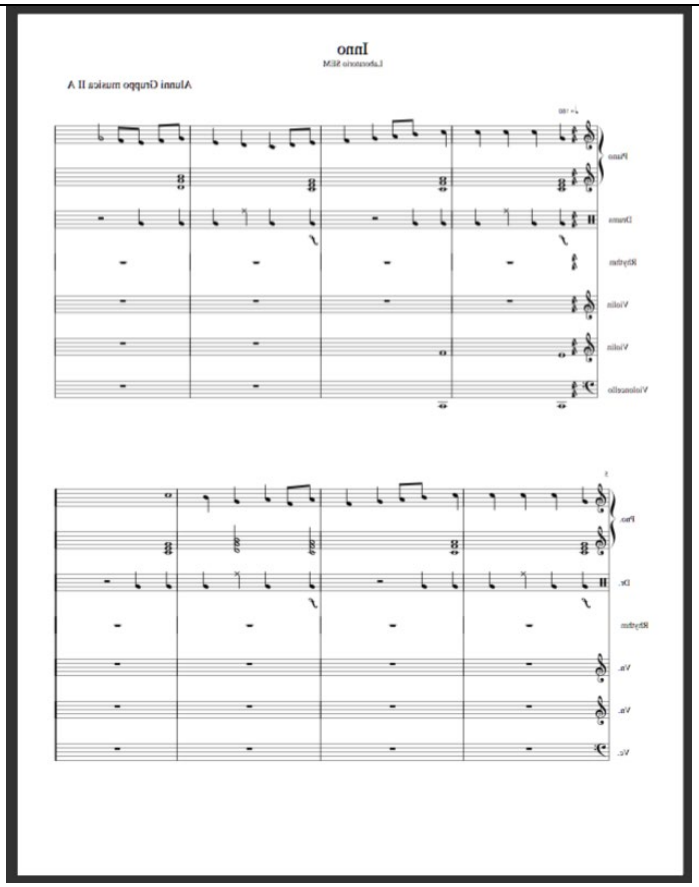
We "S"
We "E"
We "M"
We are SEM

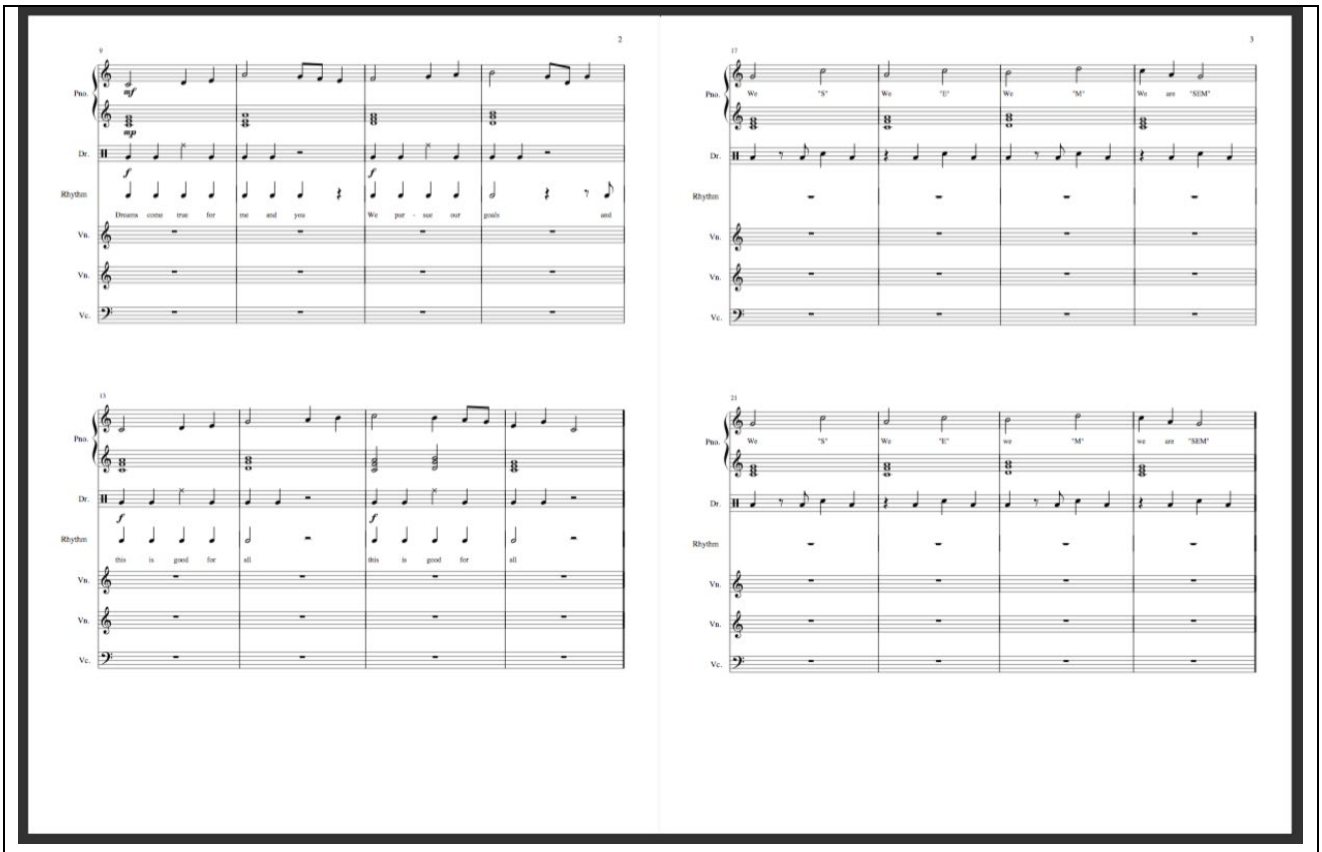
We "S"
We "E"
We "M"
We are SEM

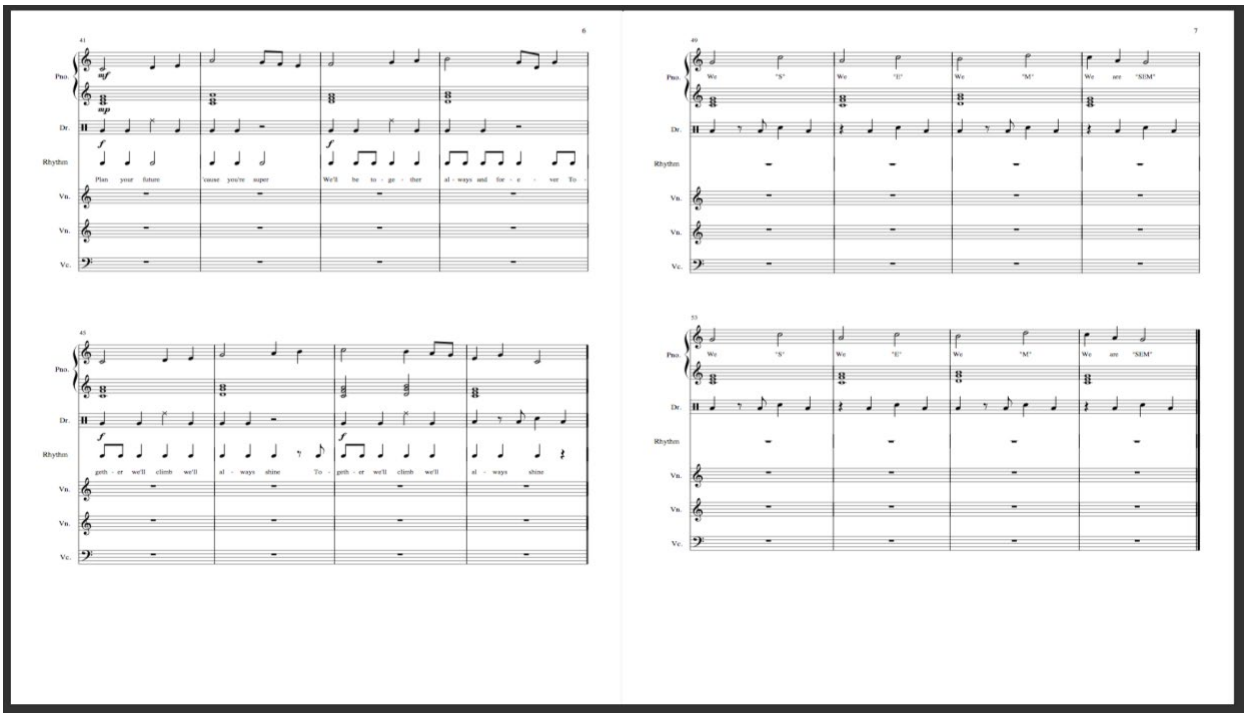
MUSIC COMPOSITION

Musical composition requires a set of skills: it is a creative process, the result of technique and inspiration. To learn how to compose music involves listening to different types of music, studying the fundamentals of the basics of music theory, such as scales, triads, and seventh chords. Students learn select tools and software for composition, and to download and use these apps that help creators work on their compositions.

Competences: Cultural Awareness and Expression Competencies – **Music Composing Skills**




9
2
Pno.
Dr.
Rhythm
Vn.
Vn.
Vc.
mf
mp
f
Dreams come true for me and you
We pur - sue our goals and
17
3
We "S" We "E" We "M" We are "SEM"
13
this is good for all this is good for all
21
4
25
We are fa - mi - ly nice and lo - ve - ly Show res - pect love and pride
29
Learn to work side by side we learn to work side by side
33
5
37



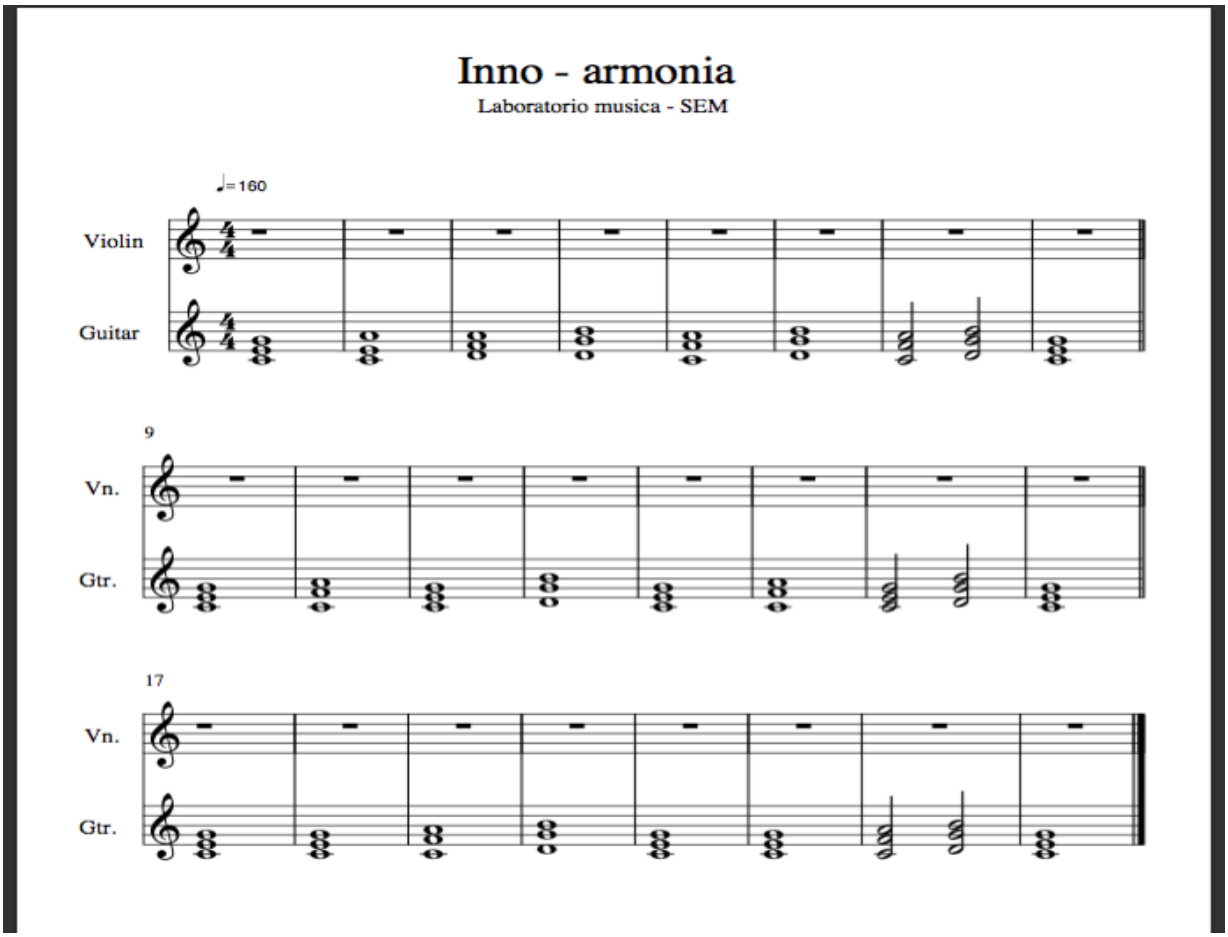


Figure 34. Music composition

STORYTELLING AND VIDEOMAKING

The Videomaking Enrichment Cluster introduced students to the use of new technologies and was aimed at creating a video that integrates different languages using images, video, music, hypertext, graphics, blog posts, and social media. Students first attempts toward digital media produced two videos: students in the videomaking cluster produced a video to document classmates' intervies on the activities in their clusters.

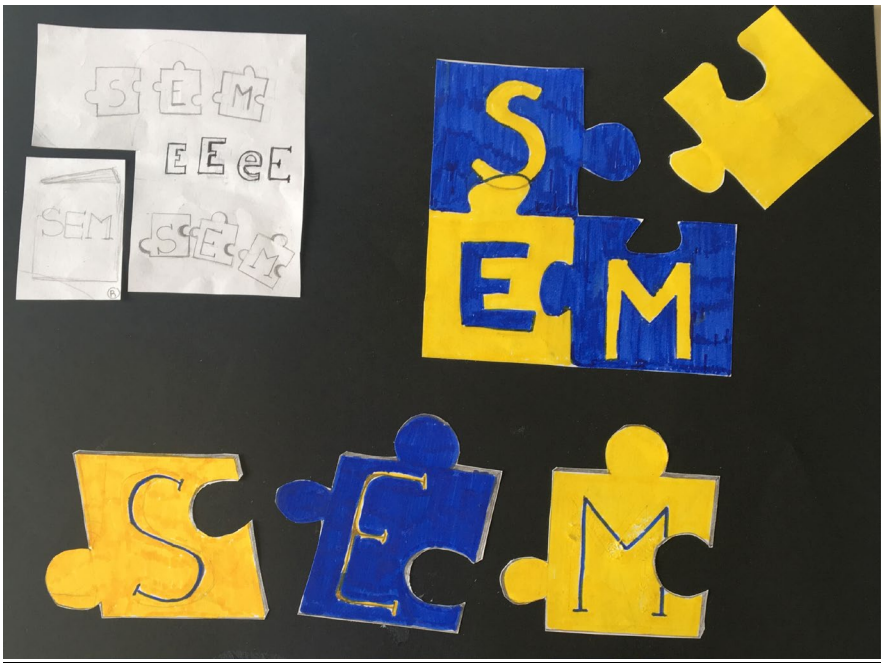
Competences: Digital Competence – Multimedia Skills

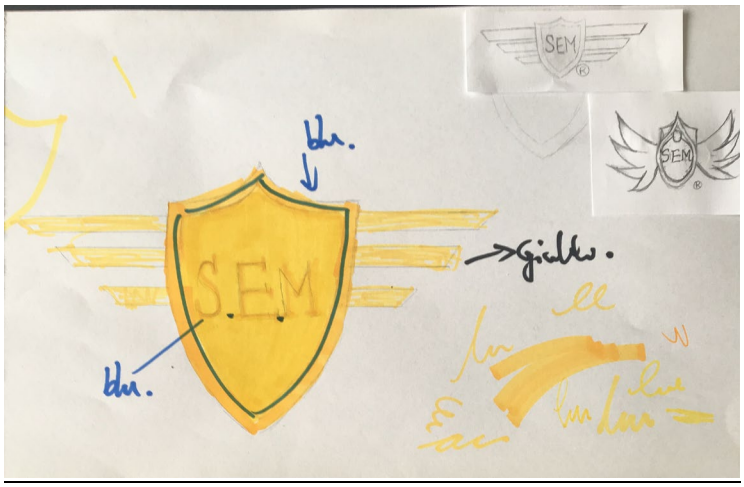
GRAPHIC DESIGN AND COSTUME DESIGN

Students learn how to create the School Logo and SEM logo through a series of easy-to-follow steps. Starting from a good old-fashioned pencil and paper, students free up their creative process and let their ideas flow in creating many rough drafts to figure out what color, icon, special fonts best suits them. There are some exciting online graphic design logo makers that student may consider to eventually convert their best sketch into a vector image.

This cluster also covers the basic theories behind drawing clothing, from sketches to final piece, to design the outfits of the chorus and dance team for the end of the year Show, selecting fabrics and choosing colours of the fresh look of the musical performance.

Competences: Cultural Awareness and Expression





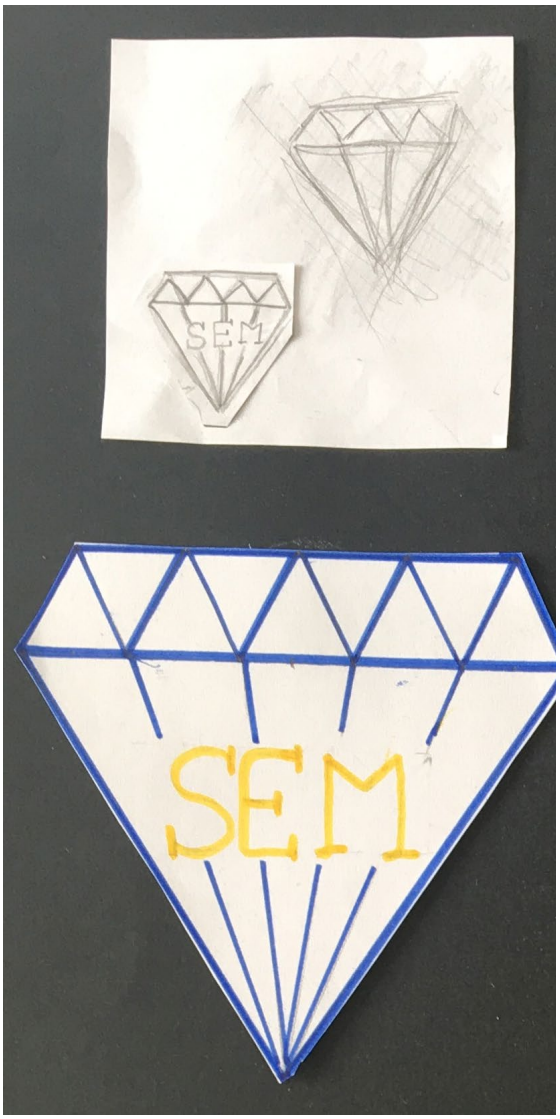


Figure 35. Logo Sketches

Figure 36. Poster of Enrichment Clusters

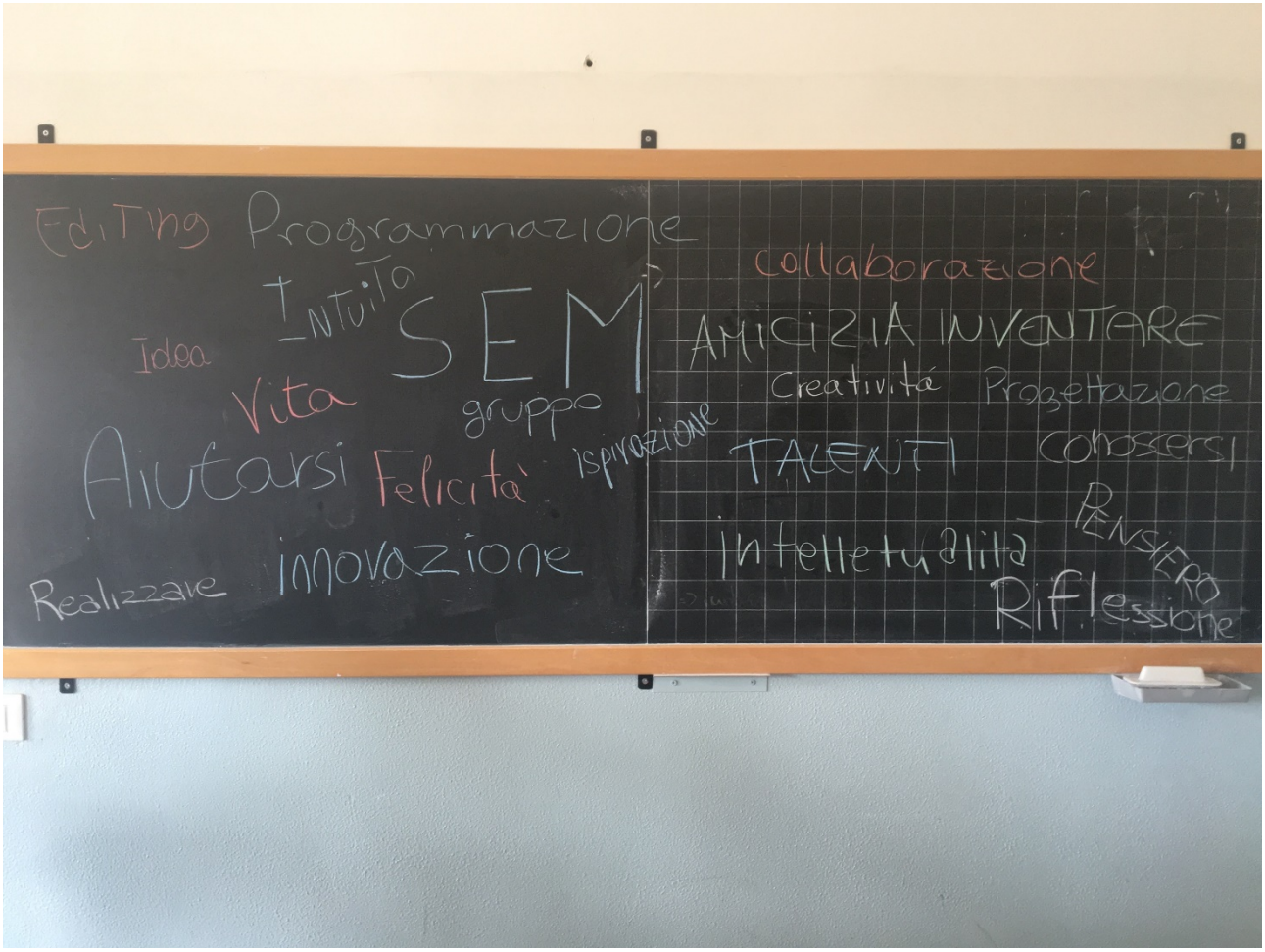


Figure 37. Students' free display of enthusiasm on Enrichment Activities

4.6 Method: Evaluation of what has occurred at the end of the year.

The major aspect of this research concentrates on an examination of the quality of students' creative products that are produced as a result of participation in the Enrichment Clusters at Trissino treatment school. Analysis of the quantity of student products is carried out through simple calculation of the number of creative products actually completed.

4.7 Participants

The setting for this study was one secondary school in Vicenza. Participants included 25 students, their three classroom teachers, and their parents. None of the student participants were identified as gifted as there are no State established criteria nor test scores or teacher recommendation that have ever been used for that purpose.

4.8 Data Collection

Data were collected over a 9-month period of time and included student and parent, responses in semi-structured questionnaires, open-ended surveys, student-completed forms, and students' interviews. Among other questions, students asked their classmates to describe progress on their enrichment projects, and to reflect on student involvement in enrichment clusters. Parents were asked to describe their child's hobbies and interests at home, and the activities their children were attending after school.
The videomaking cluster conducted and audio recorded all interviews, which were transcribed by a service.
Another video recording was made of the Spype interview with the SEM Outreach Coordinator, Dr. Nicole Waicunas.

4.9 Students Interviews

During the first year of the Enrichment activities arranged during SEM implementation students video-recorded some interviews which concentrated on the nature of enrichment activities and the chance clusters provided for exploration of interests.
Interviews occurred on two main occasions: interviews among schoolmates in the IT laboratory and a Skype meeting arranged with DR Nicole Waicunas, Outreach Coordinator.
Peer interviews concentrated on a description of activities carried out in every cluster and all students who volunteered to be interviewed were enthusiastic about their involvement in the SEM project.
Students who volunteered to talk to Dr Waicunas indicated that, thanks to the SEM program, students have the chance to investigate not only their individual interests but also discover their classmates interest areas, aside from regular school material. Students were also curious about the Model and asked the Ourtreach Coordinator if there are other SEM schools around the world. After an initial hesitation they forgot they were speaking English and they were eager to inform Dr Waicunas how the SEM experience will help them trace their own trajectories in life.

Date	**Interview**	**Cluster**
April 5th, 2018	Student A	Video Making
April 5th, 2018	Student B	Video Making
April 5th, 2018	Student C	Video Making
April 5th, 2018	Student D	Video Making
April 5th, 2018	Student E	Video Making

Figure 38. Student Interviews

Date	Interview	Cluster
April 26th, 2018	Student A	Skype Interview
April 26th, 2018	Student G	Skype Interview
April 26th, 2018	StudentD	Skype Interview
April 26th, 2018	Student H	Skype Interview
April 26th, 2018	Student I	Skype Interview

Figure 38. Skype Interview with Outreach Coordinator

4.10 Conclusions

The Enrichment Specialist was not given the possibility to continue the preceding activities in the Trissino School for the second year because the three teachers who volunteered to participate in the research study and who formed the Enrichment Team moved to different schools in the neighborhood. The principal of the school informed the enrichment specialist that none of the teachers in the building were available to continue the project.

The positive results the SEM implementation brought about in students' creative productivity are evident: all clusters produced an original product that was to be presented to an authentic audience using the approach, tools and procedures of young firsthand enquirers.

Students' enthusiasm for this type of creative learning was openly displayed throughout all the enrichment activities during the implementation process and student's products and interviews are a testimony of it.

CHAPTER 5

5.1 Chronological Planning of SEM Activities: First Year Implementation at Maffei School

SEM implementation at Maffei school started in the same period as Maffei school.

Figure 39. First year Implementation steps at Maffei School

5.2 Steps in the implementation process

The implementation process followed the major steps adopted at Trissino school, and students' interests were assessed using the same tools, but in addition to that students took also the Creativity Test.

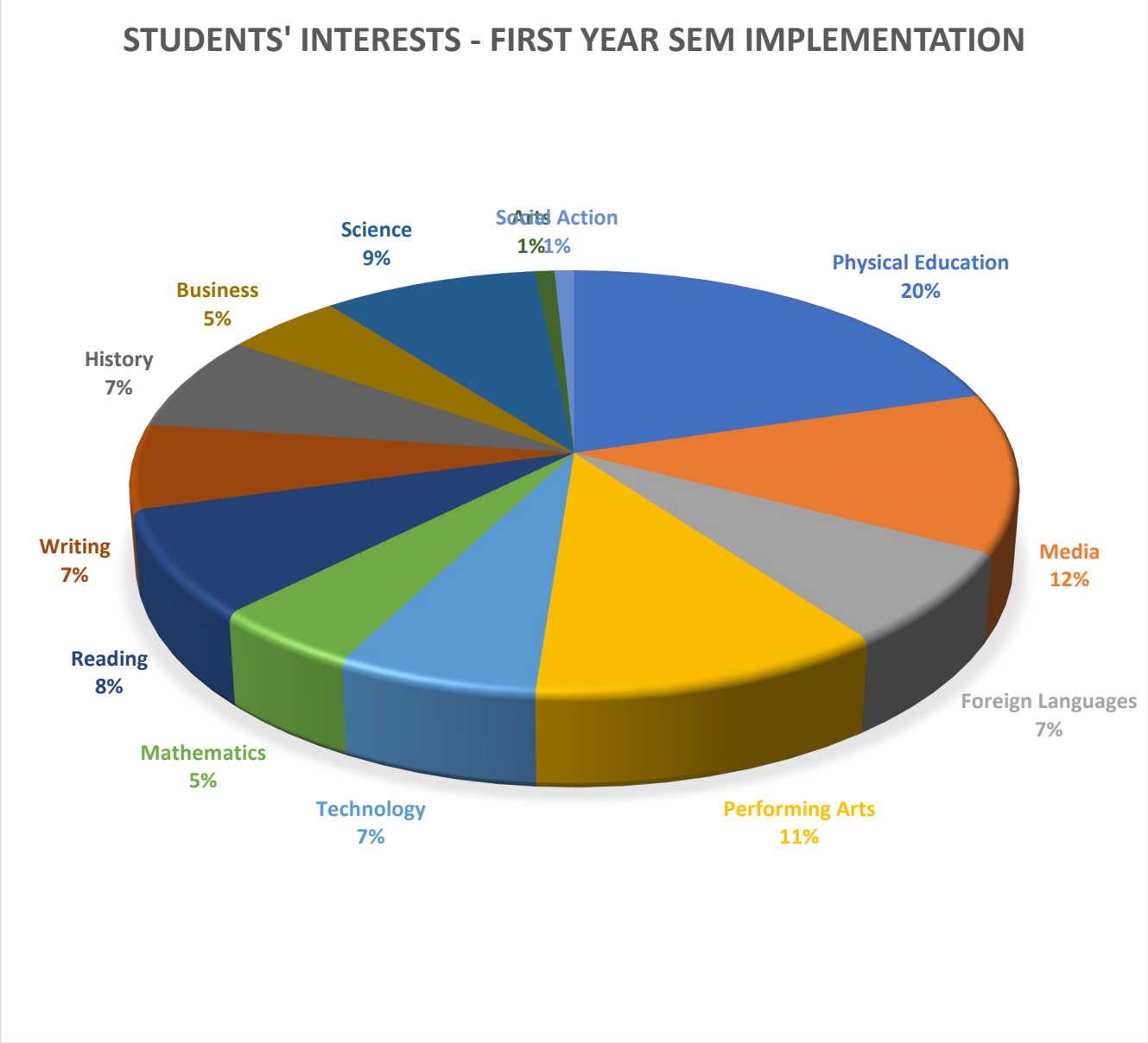


Figure 40. Students' main interests at Maffei School

5.3 The Triad Model: TYPE I, TYPE II, AND TYPE III

The original Enrichment Triad Model (Renzulli, 1977), the curriculum core of the SEM, was developed in the late-1970s and initially implemented as G&T program for academically talented and gifted students. This approach is designed to encourage creative productivity on the parts of young people by exposing them to various topics, areas of interest, and fields of study, and to further train them to *apply* advanced content, process-training skills, and methodology training to self-selected areas of interest using three types of enrichment. (Renzulli & Reis, 1985, 1997, 2014.)

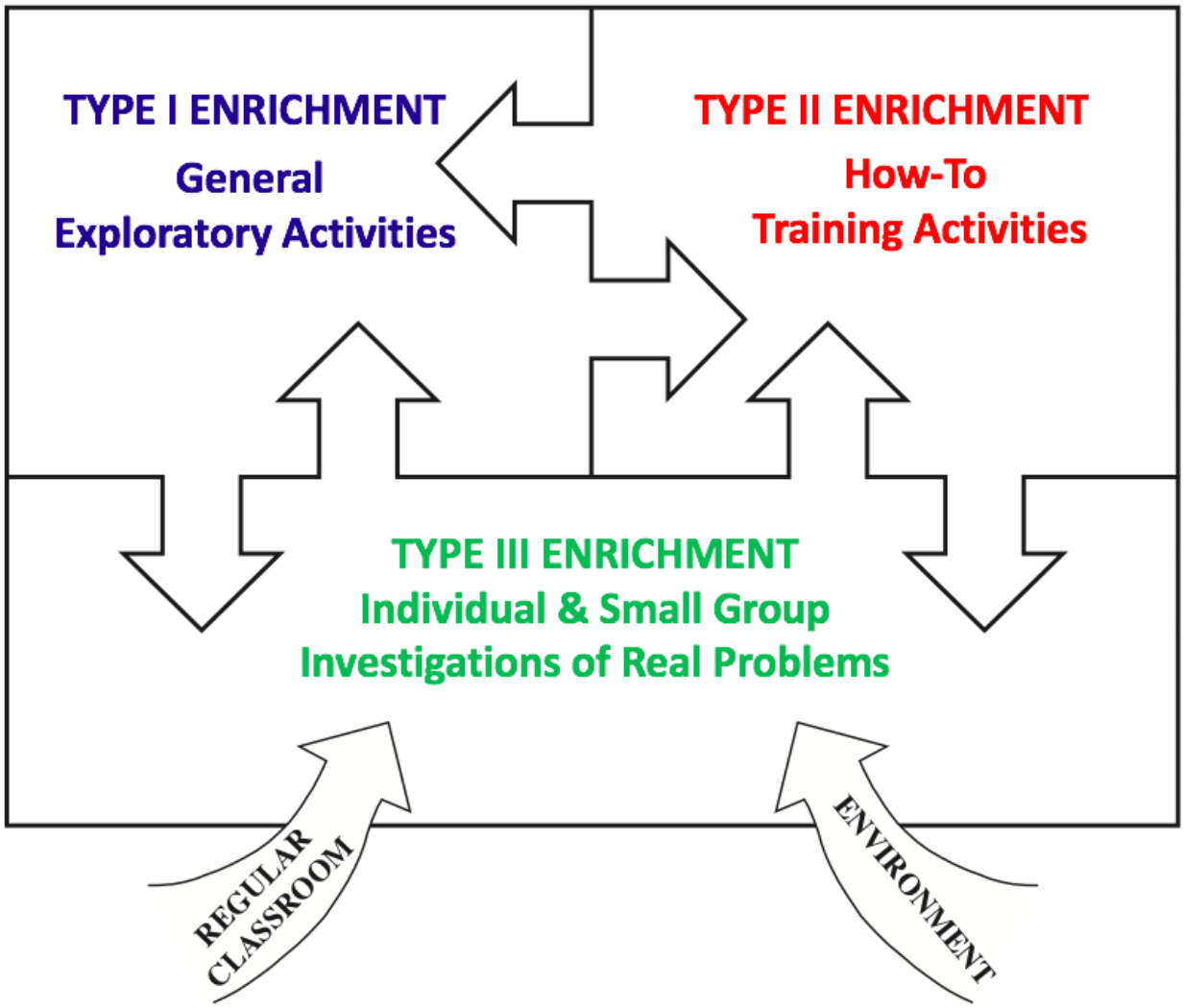


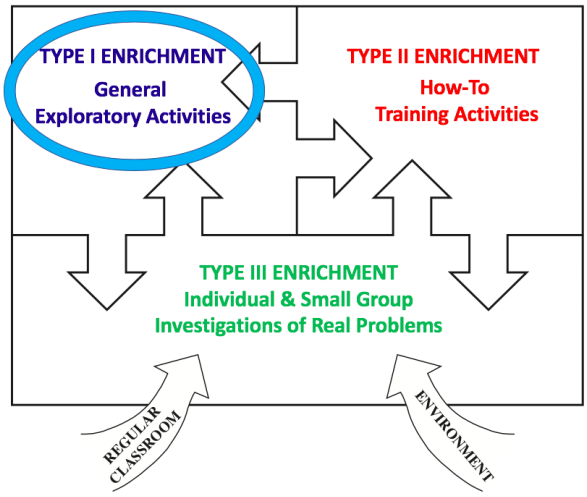
Figure 41 - The Enrichment Triad Model.

The Enrichment Triad Model Activity: MISSION TO MARS

(by Dr. Angela Houdson, http://www.angelahousand.com)

Type I

In Type I Enrichment students are exposed to a wide variety of topics, issues, and disciplines that are not normally covered in the regular curriculum. These Type I experiences are provided for general enrichment, as well as to "spark interests" in students who may want to pursue an advanced level of study (Type III investigation).



TYPE I Enrichment: Mars and Life on the Red Planet

Brainstorming: Mission to Mars

The world is constantly evolving and the students we are forming today could be the astronauts who will inhabit Mars in 2030. Are we sure that we are providing them with a preparation that will make them citizens of space?

Students watched a NASA video about the landing of the Discovery and then a brainstorming activity was carried out to find out what students know about this subject.

KWHLAQ Strategy

What do we know about the subject?
What should we or shouldn't we know?
What would we like to find out?
How can we find information?
Where can we find the answers?

- **<u>NASA VIDEO – Discovery Landing on Mars</u>**

Expansion of the human race in our Universe.

The problem of creating an ideal team of astronauts who will land on Mars is real, since many leading countries are interested in participating in this mission. How can we foresee that exponents of different nationalities will get along with in the future society? The mission to Mars is a long-lasting experience for which no one is prepared. (From 18 to 24 months)

In the following weeks, a Mentor was invited to speak about the subject.

A brief training on SEM was provided to a Professor in Physics who volunteered to give a speech on Mars and the latest technologies and innovations that will contribute to a successful mission to the red planet.

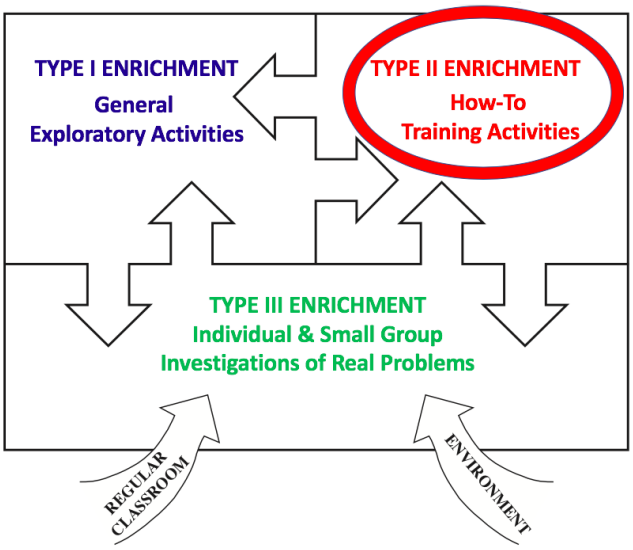
Planning a successful Type I Enrichment activity is the responsibility of the Enrichment Specialist. The more topics the Type I activity can cover, the more chances the activity has to involve students to pursue their interest in subsequent in Type II or Type III activities. Below a brief description of the many and varied interests a Type I activity on Mars can tap into:

SCIENTIFIC TOPICS	TECHNICAL TOPICS	MEDICAL TOPICS	ETHICAL, POLITICAL, RELIGIOUS TOPICS
ASTROPHYSICS PHYSICS ASTRONOMY GEOLOGY SOIL EXPLOITATION RENEWABLE ENERGIES WATER RESERVES	MECHANICS ENGINEERING SPACE-ENGINEERING NANOTECHNOLOGY MECHATRONICS ROBOTICS COMPUTER COMMUNICATIONS 3D PRINTING TEXTILE INNOVATIONS FASHION	MEDICINE CHEMISTRY BIOLOGY BOTANY GENETICS PSYCHOLOGY LOLINESS	POLICY ETHICS ECONOMY LAW COMMUNICATION IN FOREIGN LANGUAGES

Figure 42. Topics covered in Type II Activity

Type II

Type II skill training activities include creative and critical thinking skills, advanced research and reference skills, and creative problem-solving activities.



INSTRUCTIONS:

Students were asked to imagine to be potential investors who fund projects for the progress of human mankind.

Then students were asked to form 5 groups, each one representing a country. Students named themselves Prime Minister, Minister of Economics of the chosen Country and then they were given time to discuss within each group which devices they considered to be vital to guarantee the life of their astronauts on Mars. They were asked to allocate a precise budget pretending their own country was willing to participate in the mission by providing 3 devices.

A list of 12 technological innovations was provided to students, pretending they were playing the role of Angel Investors. For each of the technological innovations below students were asked to work in pairs and/or mini-groups to:

1 Rank order each innovation for its importance in the process of colonizing Mars.
2 Provide the reason for the ranking of each innovation.
3 Select 3 innovations that are fundamental to colonize Mars and list the reasons that guided their choices .

Then each group met in circle and a representative of each country was asked to stand up and list the devices their country was willing to provide to the Mars mission and why they thought the chosen devices were supposed to be vital to astronauts.

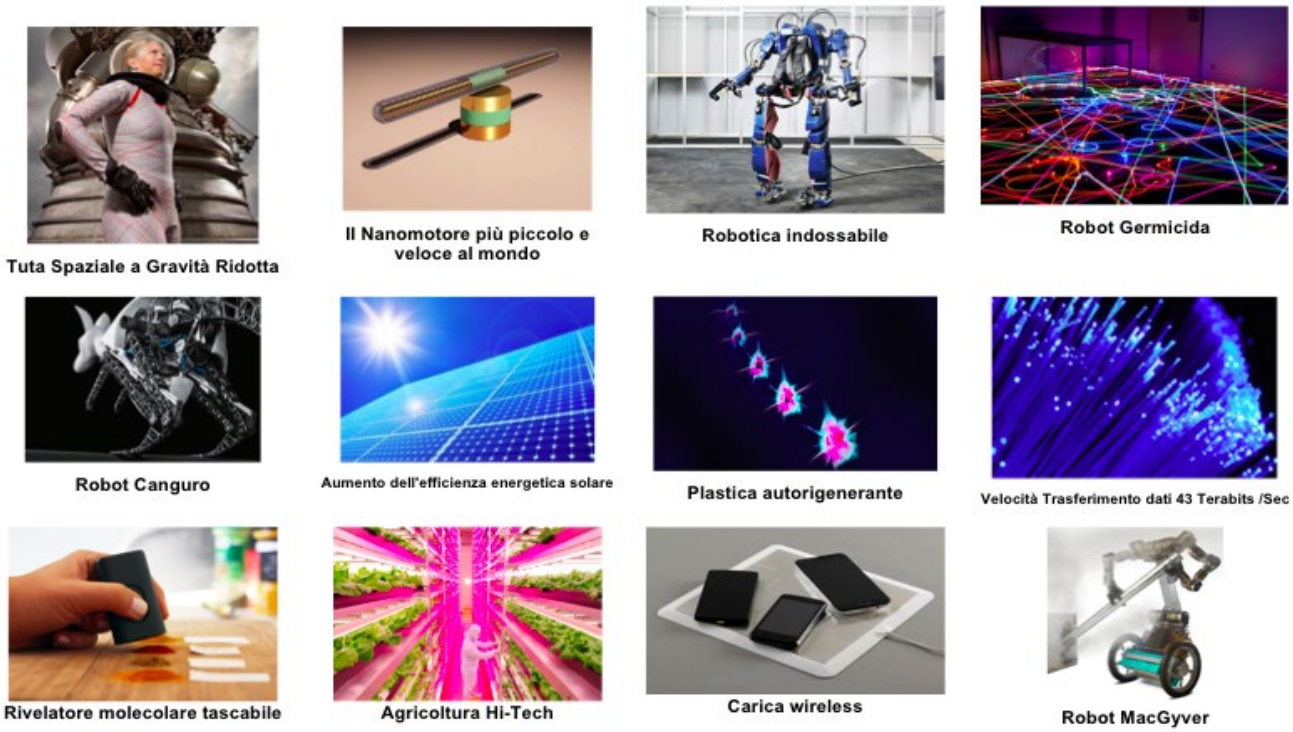


Figure 43. Type II Activity

In order to make the requested choices several skills were involved:
decision making, critical thinking, oral communication in discussing, pros and cons, etc.

Decision making and problem solving involve the students in an integrated set of thought activities that push them to the creative generation of ideas, an analysis of those ideas and the exercise of critical judgment in determining what is the best idea.

Decision making is a complex task that incorporates a range of different but complementary thinking skills, such as fluidity, flexibility, originality and elaboration, which foresee probable consequences, comparisons and contrasting, ranking / prioritization and determination, as well as accuracy and reliability of information sources.

One of the major purposes of Type II Enrichment is to develop advanced-level thinking skills and stimulate new interests in students, as recommended in the SEM.

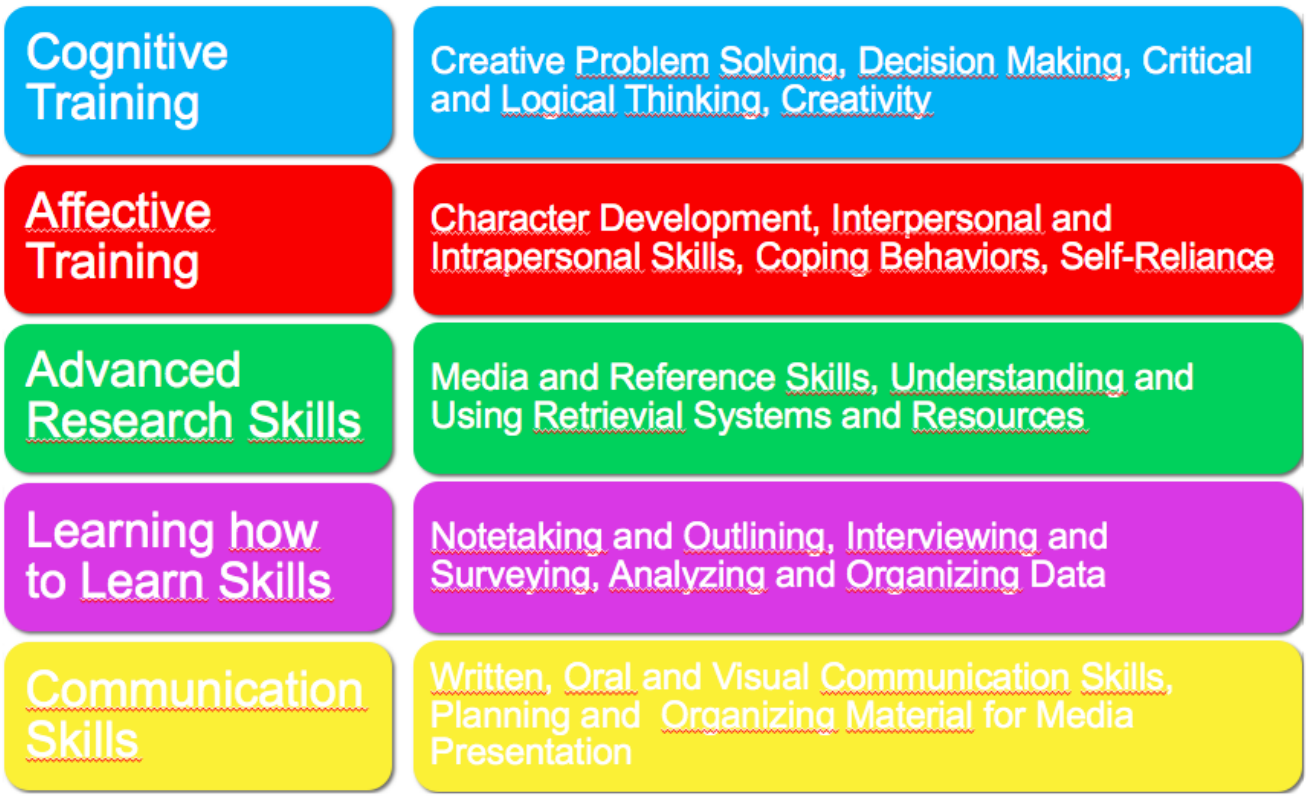
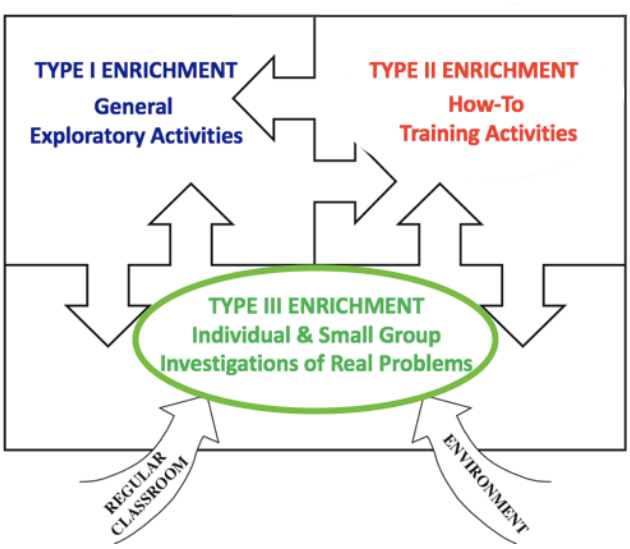


Figure 44. Thinking Skills Taxonomy involved in Type II Activity

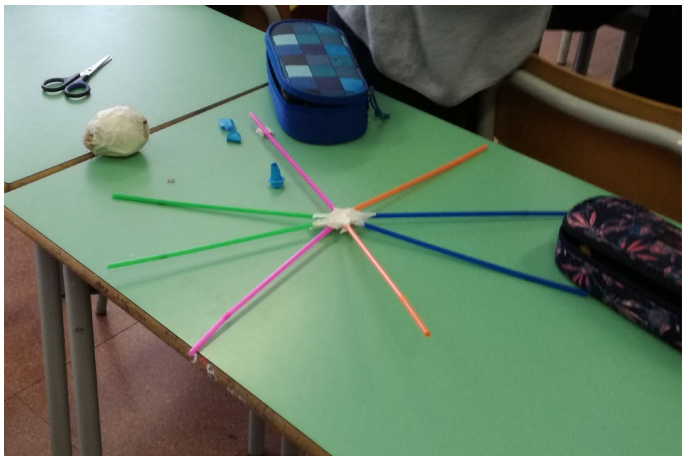
Type III

Through increased involvement with other types of enrichment experiences, students may become interested in pursuing a Type III investigation. Students may work individually or in small groups based on interest. Projects may range in length from several weeks to several months.



The Mars mission allows each student to participate in a Type II activity on a particular topic or to start a Type III project on an aspect of personal interest.
All students decided to create a space shuttle to simulate an hypotethical landing on Mars.
Students were provided with cheap school materials to create an original vehicle that was supposed to guarantee a safe landing of the space crew (represented by an egg). The teams of 'engineers' produced 'an original product' which was launched from a pretended launching ramp in front of an 'authentic audience' of teachers. The enthusiasm and joyful learning that characterized the enrichment activity is exactly the type of learning the Three Es promote in a safe and creative environment in which students feel free to experiment their thinking skills, decision making, leadership, cooperative learning, team-building, interpersonal and communication skills that are key to success in our societies.

Pictures and videos were taken in order to document the effects of the type of learning that the SEM promotes, which were later included in a PowerPoint presentation by the Enrichment Specialist and presented to a students' parents meeting.



Activity: Creation of an original product to be presented to an audience

Instruments:
Balloons, plastic bags, straws, lanyard, scissors, paper clips, paper scotch, paper, paper bags, eggs

Debriefing

Debriefing is a simple but powerful tool that allows a team to self-correct, identifying themselves as a team and improve their performance.
During the debriefing, team members reflect on recent experience, discuss work patterns and identify opportunities for improvement. They try to build a group cohesion, clarifying roles, priorities and objectives, removing obstacles to collaboration, with the aim of designing common strategies that guarantee future success.
A review can be made to review team strategies at any time, either at the beginning of a project, or even during the course to correct the course, or at the end of the team-work experience.
All team members can participate in a debriefing, which can be led by a team leader, facilitator, project manager, consultant or teacher who can ask the following questions:

What did we learn about the subject after doing the activity?
What skills have we used?
How can we use these skills in other subjects and in our life?
What have we learned about ourselves?
What have we learned to collaborate with others?
What new questions can we ask ourselves now?

The above listed questions may assist in evaluating the grade of understanding of students.

Outcomes of Self-selected Activities

Educational activities based on real problems are an excellent opportunity for personalized learning. Students have the opportunity to learn content by asking their own questions, searching for information

in a fun way and acquiring soft skills. They must also use all their knowledge to perform an authentic task that culminates in an original product.
The knowledge and skills learned are potentially transferable to real-life situations.

Self-directed Students

In general, when freedom of choice is given to students and they feel they can share some control over their learning with teachers, the learning process is more effective, the engagement increases and the class is pervaded by an enthusiasm that transforms the educational experience.
Students' ability to manage study activities by themselves is one of the educational goals that learners should achieve at the end of secondary school (Antonietti, 2013).

5.4 Population involved in the second year of the research study

The second year of doctoral research involved only one of the two Middle Schools originally involved in the study, as Trissino School gave up the implementation because the teachers who volunteered to cooperate the first year were assigned to different Schools.

As clearly stated by the authors of the enrichment program, "The SEM emphasizes common goals and encourages all teachers to pull in the same direction, knowing that their work contributes to the same set of goals— that is, schools should be places for talent development". (SEM page 12).

SEM implementation successfully continued at Maffei School and it involved 45 students, 22 7th grader and 23 8th graders, (26 males and 19 females).

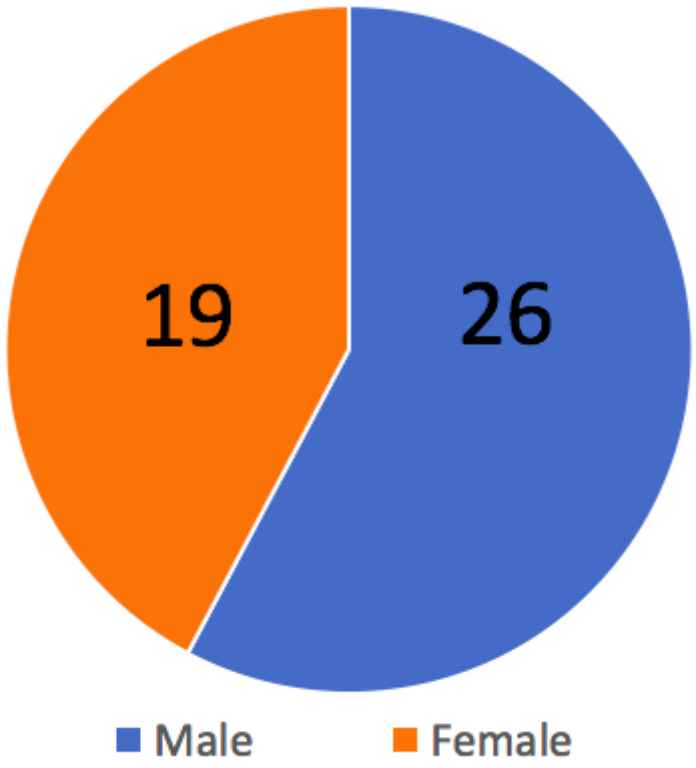


Figure 45. Population involved in the second year of the research study at Maffei School

5.5 Chronological Planning of SEM Activities: Second Year Implementation at Maffei School

Figure 46. Planning of SEM activities in the second Year at Maffei School

5.6 Students' Interests Survey

The Renzulli Learner System provided a detailed description of the new students' interests, learning style and production styles, depicted below:

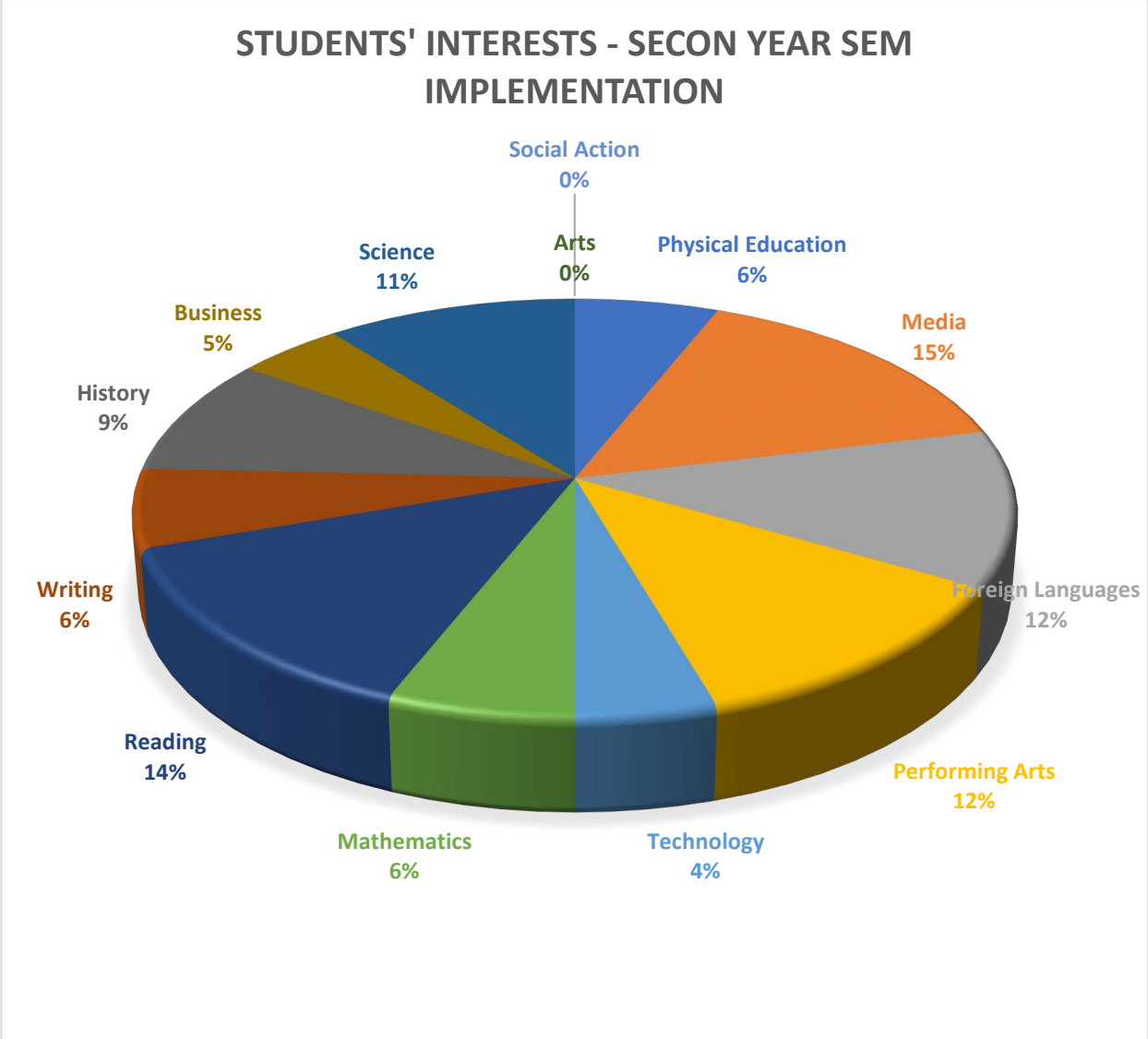


Figure 47. Students' interests – Second year of SEM implementation at Maffei School

Also, during the second year of SEM implementation the Math teacher and the Italian teacher devoted one hour each of their teaching hours to the SEM.

As a result of the new understanding of the emotional and educational needs of the diverse school population and a new awareness among parents of children' gifts and talents, the Enrichment Specialist was informed that the parents of a student at treatment school during the Summer decided to contact an private consultant to ask for a cognitive test to be privately administered to their son. The test proved he is a highly gifted boy and the Enrichment Specialist met both Parents and student to inform them of the

opportunities the SEM offers to challenge highly able students in addition to participating in all aspects of the schoolwide enrichment process.

Both teachers at treatment school were given an SEM training in which a description of the supplementary services highly able students can receive either in the regular classrooms or in the resource room, including the opportunity of compacting the regular Curriculum. Moreover, LabTalento offered both parents and the Principal of the school the possibility to adopt a new tool produced by LabTalento, namely the PDP (or PEP Personalized Educational Plan), to plan future activities for highly able students.

Unfortunately, the school decided to handle this matter within the school staff, and the Enrichment Specialist was not invited to assist in planning the adoption of any enrichment/acceleration/differentiation strategies. The Enrichment Specialist's suggestions to adopt either acceleration in the strength are of the student or Type III individual activities to properly challenge the high ability student went unheard, possibly perceived as an interference with the teacher's teaching strategy in her subject area during her teaching hours.

5.7. The Renzulli Rating Scales for Rating the Behavioral Characteristics of Superior Students

The SEM offers alternate pathways to identify students' talents, as sometimes really creative students don't always test that well on standard testing score modes. Research shows that gifted children tend to exhibit certain observable behaviors, such as using advanced vocabulary, grasping underlying principles, and making generalizations from complex information. Other traits are high ability for reasoning numerically, high degree of memory, spatial relationship ability, and great fluency with words. In addition, the ability to discipline oneself toward a task, and having the self-confidence to carry out a project of high complexity and dexterity of thought. 14 areas to help them identify a broader pool of academically advanced students. The Enrichment Specialist was given free use of the RRS from its Editor for research purposes and she translated them in Italian in order for teachers at treatment school to use them.

All teachers in Y6-Y7 F and Y7-Y8 B at Maffei School (not only the Math and Language Arts teachers participating in the pilot project), were asked to rate the students in comparison to their peers on a large base of observable behaviors. The high scorers were much more likely to be gifted children.

MOTIVATION CHARACTERISTICS

The student demonstrates . . .	Never	Very Rarely	Rarely	Occasionally	Frequently	Always
1. the ability to concentrate intently on a topic for a long period of time.					–	
2. behavior that requires little direction from teachers.				–		
3. sustained interest in certain topics or problems.					–	
4. tenacity for finding out information on topics of interest.				–		
5. persistent work on tasks even when setbacks occur.			–			
6. a preference for situations in which he or she can take personal responsibility for the outcomes of his or her efforts.					–	
7. follow-through behavior when interested in a topic or problem.						–
8. intense involvement in certain topics or problems.				–		
9. a commitment to long-term projects when interested in a topic.					–	
10. persistence when pursuing goals.			–			
11. little need for external motivation to follow through in work that is initially exciting.		–				
Add Column Total:		1	2	3	4	1
Multiply by Weight:	1	2	3	4	5	6
Add Weighted Column Totals:	+	2	+ 6	+ 12	+ 20	+ 6
Scale Total:						46

Scoring:

- Add the total number of x's in each column to obtain the "Column Total."
- Multiply the "Column Total" by the "Weight" for each column to obtain the "Weighted Column Total."
- Sum the "Weighted Column Totals" across to obtain the Score for each dimension of the scale.
- Enter the Scores for each dimension on the cover sheet.

Figure 48. The Renzulli Rating Scales

Data from the RRS shows that teachers who considered students strong in their particular content area got consistently high scores in that particular area. Conversely, teachers who perceived students as weak in a particular area got consistently low scores in the characteristics associated with that content area.

Figure 49. Renzulli Rating Scales Scores Y7 F

Renzulli Rating Scales Scores Y8 B

Gender	Grade 7 F	Learning	Creativity	Motivation	Leadership	Artistic	Musical	Dramatics	Comm. Prec	Comm. Expr	Planning	Math	Reading	Technology	Science
Male	Grade 7	49	41	60	36	43	40	41	46	48	68	22	24	21	28
Male	Grade 7	41	32	43	23	20	25	38	40	13	59	12	18	22	23
Female	Grade 7	55	41	54	35	40	35	39	55	17	75	44	29	25	30
Male	Grade 7	45	35	43	32	28	36	47	37	16	49	38	19	25	20
Female	Grade 7	62	45	65	39	55	35	45	65	21	81	60	24	25	38
Male	Grade 7	22	27	33	23	15	33	28	22	8	29	10	12	15	7
Male	Grade 7	22	21	22	14	15	22	32	22	10	29	12	12	22	10
Female	Grade 7	44	33	44	29	40	42	36	42	18	60	53	25	26	31
Female	Grade 7	52	43	55	35	39	36	36	53	15	71	39	26	27	22
Male	Grade 7	46	36	44	24	13	20	32	34	13	50	36	20	22	30
Male	Grade 7	33	26	23	19	18	26	22	22	8	29	10	13	21	10
Male	Grade 7	52	39	50	33	41	36	40	49	15	69	47	27	27	23
Male	Grade 7	38	31	42	28	25	36	33	33	14	52	16	21	21	12
Male	Grade 7	38	29	53	35	45	24	43	45	16	52	32	20	24	21
Female	Grade 7	32	25	31	23	24	24	32	29	10	44	10	18	22	9
Female	Grade 7	48	39	45	31	40	37	43	47	18	68	42	26	23	24
Male	Grade 7	44	37	36	23	20	29	47	44	17	53	12	24	21	24
Male	Grade 7	47	36	44	29	44	34	37	44	15	58	36	23	27	23
Male	Grade 7	44	36	46	29	51	30	32	45	13	59	51	24	25	28
Male	Grade 7	39	34	44	28	44	32	46	44	16	59	20	23	26	14
Male	Grade 7	44	33	49	30	24	35	41	44	15	62	24	25	24	26
Male	Grade 7	22	21	22	14	23	30	31	22	7	36	10	11	13	10
	AVERAGE	41,7	33,6	43	27,8	32,1	31,6	37,3	40,1	15,5	55	28,9	21	22,9	21

Gender	Grade 8 B	Learning	Creativity	Motivation	Leadership	Artistic	Musical	Dramatics	Comm. Prec	Comm. Expr	Planning	Math	Reading	Technology	Science
Female	Grade 8	43	26	50	27	32	37	29	28	10	57	29	27	25	29
Female	Grade 8	27	32	36	24	22	22	36	23	15	30	13	13	17	10
Male	Grade 8	55	38	54	32	35	29	28	48	22	62	25	27	27	29
Male	Grade 8	26	25	24	14	11	12	19	24	20	30	16	10	14	9
Female	Grade 8	53	40	51	31	40	22	40	55	19	60	31	29	30	28
Female	Grade 8	66	38	50	41	48	29	35	66	20	70	46	36	32	28
Female	Grade 8	41	34	44	32	47	33	38	44	16	60	34	24	30	27
Female	Grade 8	66	45	66	42	61	39	50	66	24	74	57	36	28	42
Female	Grade 8	31	37	24	25	58	34	45	35	17	40	39	12	32	34
Male	Grade 8	53	40	47	33	22	40	19	44	16	56	15	23	22	18
Feale	Grade 8	22	18	24	24	25	19	20	22	4	30	15	8	12	13
Female	Grade 8	34	36	36	29	37	39	42	37	16	45	20	16	28	22
Female	Grade 8	19	18	21	21	39	18	23	22	10	45	18	8	23	13
Male	Grade 8	55	40	44	33	50	32	32	49	12	63	45	35	25	28
Female	Grade 8	53	36	50	30	46	37	41	45	17	59	46	25	19	35
Male	Grade 8	43	34	55	33	41	39	28	44	15	59	36	24	32	35
Male	Grade 8	55	45	55	42	34	28	60	56	24	75	43	30	30	35
Female	Grade 8	48	45	58	41	63	41	56	66	24	63	58	36	43	35
Female	Grade 8	37	37	39	26	37	32	41	30	14	46	28	14	21	29
Male	Grade 8	15	20	22	17	13	14	18	22	12	30	15	9	13	12
Male	Grade 8	56	39	51	34	44	32	36	52	19	64	57	26	29	35
Male	Grade 8	50	35	46	29	36	31	37	50	16	60	36	26	17	23
Male	Grade 8	22	24	43	17	33	31	17	22	7	42	23	12	32	30
	AVERAGE	42,1	34	43	29	38	30	34,4	41,3	16	53	32,3	22	25,2	26

5.8 Designing the Enrichment Clusters

One of the goals of the SEM is to minimize boredom by injecting enrichment experiences into any and all prescribed topics. Again, the planning of enrichment activities were made in order to include in the Enrichment Clusters the 8 Key Competences for Lifelong Learning as recommended by the European Community.

All clusters should produce an original product to be presented to an authentic audience and clusters have been designed taking into consideration the interest areas of students, as resulting from the individual Profiles in the RLS.

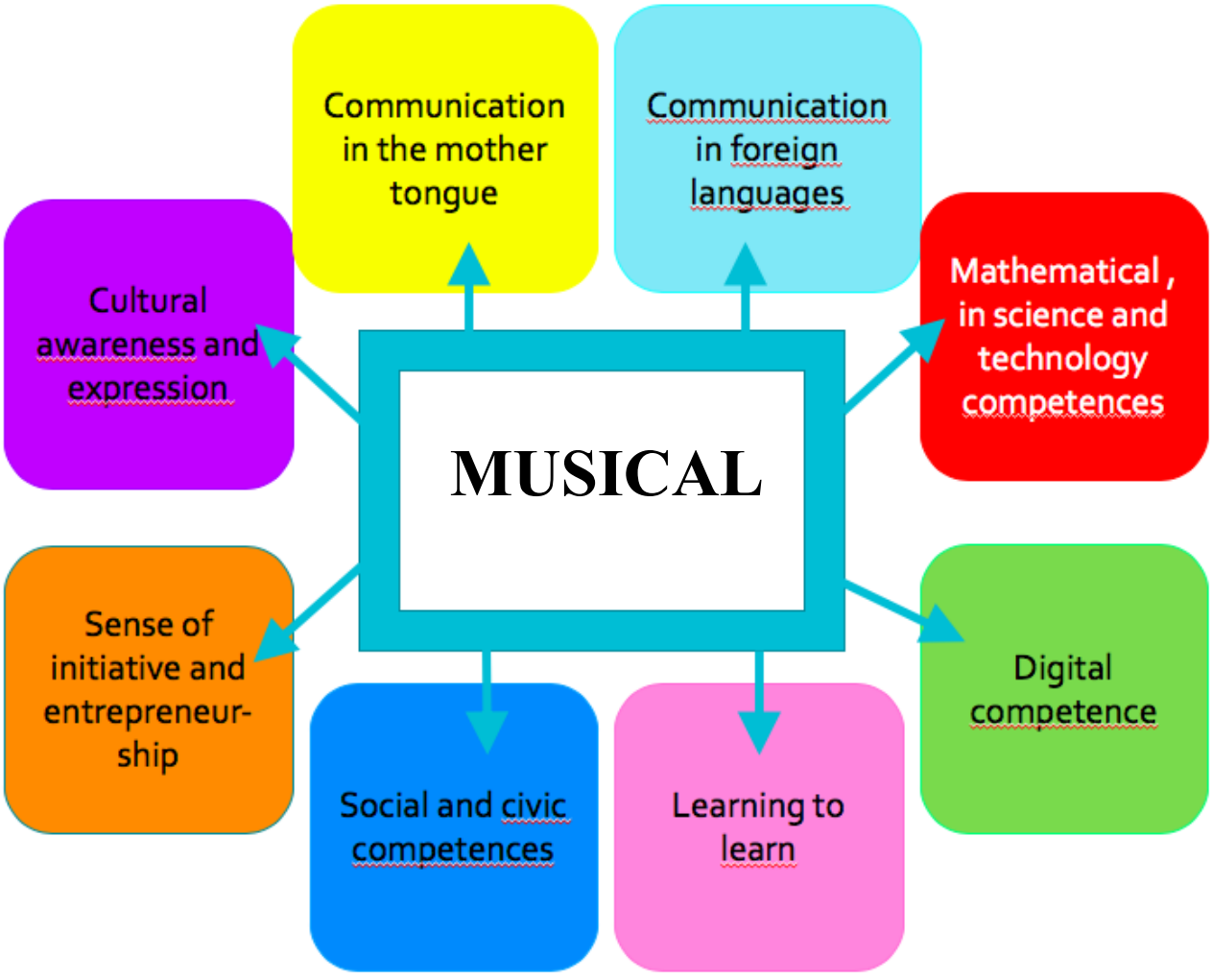


Figure 50. 8 Key Competences infused in SEM Enrichment Activities

The Enrichment Specialist designed 6 enrichment clusters, that took place in two different Sessions, namely Session I and Session II.

Presentation of Enrichment Activities to Parents

The Enrichment Specialist sent an email to Parent to inform them of the many enrichment activities planned for the schoolyear and to ask them to volunteer for any of the activities or support needed for carrying out the project. Later on, a meeting with parents and the Enrichment Team was arranged and the enrichment clusters were described in a Power Point presentation.

Cari genitori:

Siamo lieti che Vostro figlio/a, _____ partecipi
al nostro Programma di Arricchimento Scolastico durante l'anno scolastico in corso.

Il programma The Schoolwide Enrichment Program (SEM) è stato sviluppato per fornire attività di arricchimento a tutti gli studenti del gruppo classe, progettate tenendo conto degli interessi, stili di apprendimento e stili espressivi dei nostri studenti.
Il programma si propone di sviluppare capacità di pensiero critico e creativo e di problem solving, nonché l'acquisizione di un metodo di indagine e di studio indipendente che consentirà agli studenti di diventare adulti creativi e produttivi.
I Clusters di Arricchimento si svolgeranno il mercoledì alla 4° ora, durante la quale gli studenti di II B e III F collaboreranno a delle attività di arricchimento, condividendo degli spazi comuni appositamente predisposti.

I Clusters si avvalgono di professionisti che sono stati cooptati come volontari, e che guideranno gli studenti nel processo di realizzazione di un prodotto od un servizio autentico, utilizzano metodologie, strumenti e risorse reali.

Grazie alla Compattazione del Curricolo, le attività di arricchimento trovano spazio all'interno del regolare orario scolastico garantendo al contempo l'acquisizione delle competenze curricolari.

Mercoledì 14 presenteremo i clusters di arricchimento in classe agli studenti, che sono organizzati i due periodi dell'anno:

Sessione Autunnale da Novembre a Gennaio:

Scrittura Creativa di Italiano,

English for Fun! e

Matematica ed Imprenditorialità

Sessione Invernale da Febbraio a Maggio:

Teatral-mente

VideoMaking

Dance Academy

Agli studenti verrà data l'opportunità di candidarsi liberamente ed autonomamente ai clusters di loro interesse.

Grazie della Vostra fiducia e del Vostro supporto al nostro programma.

Cordiali saluti,

Lara Milan

Enrichment Specialist

Figure 51. Invitation to Parents

Identify Facilitators of the Enrichment Clusters

Once interests were compiled mentors and facilitators within popular interest areas were identified and enlisted among parents, teachers and professionals in the local society, namely, an account manager, a professional author, a professional dancer and choreographer, a drama teacher, a tech engineer. Facilitators were contacted via mail by the Enrichment Specialit, who informed them that facilitators would recieved proper training on the principles of the SEM.

Lettera aperta ai genitori e ai membri della comunità

Carissimi genitori e membri della comunità interessati:

Questa lettera ha lo scopo di aiutarci ad individuare gli adulti, all'interno della nostra comunità, che potrebbero essere disposti a condividere le loro competenze professionali, i talenti e le esperienze con gli studenti nelle nostre scuole.

Nel progettare le attività per soddisfare i bisogni educativi dei nostri studenti, è importante fornire un'ampia varietà di esperienze di arricchimento. Le materie svolte in classe soddisfano già molte dei loro bisogni educativi. Tuttavia, le abilità di molti dei nostri studenti sono spesso così uniche che diventa necessario guardare oltre i confini della classe tradizionale per individuare nella realtà che ci circonda risorse e modelli di riferimento.
È nostra convinzione che gli studenti potrebbero esplorare più approfonditamente i loro interessi individuali mettendoli a contatto con dei professionisti che condividano i loro interessi ed ambizioni.

In questo modo, i bambini avranno l'opportunità di esplorare più approfonditamente i loro interessi individuali. Crediamo fermamente che gli studenti apprezzeranno l'impegno, la creatività e il problem solving osservando il "professionista che pratica" la sua attività in un contesto realistico. I bambini che prenderanno parte a questa esperienza avranno maggiori probabilità di sviluppare atteggiamenti positivi verso l'apprendimento indipendente, l'automotivazione e l'indagine approfondita.
Il nostro intento è quello di coinvolgere la comunità in programmi che differiscono dalle forme di volontariato tradizionali. Non stiamo cercando chaperon o aiutanti degli insegnanti. Piuttosto, Le stiamo chiedendo di condividere la Sue competenze professionali, le Sue esperienze, talenti e hobby.
Il Vostro supporto è determinante per realizzare i nostri obiettivi e vorremo coinvolgerVi attivamente, assieme ad altri i membri della comunità, a partire dal prossimo Febbraio, durante la seconda sessione di clusters.
Come sapete, i Clusters si riuniscono il mercoledì mattina, dalle 10:50 alle 11:40. Ogni cluster è costituito da circa 15 studenti, al quale gli studenti si sono iscritti perché interessati all'argomento.
Il Mentore del Cluster ha l'importante compito di aiutare gli studenti a:
scoprire **cosa** fanno i professionisti in un particolare ambito,
apprendere **le conoscenze e gli strumenti** utilizzati dai professionisti, e
sviluppare un **prodotto o servizio** da presentare ad un pubblico reale.
Vi chiedo gentilmente di compilare il breve questionario allegato per comprendere
Le Vostre disponibilità.

RingraziandoVi, porgo i miei più cordiali saluti.

Lara Milan
Specialista di Arricchimento

Si prega di compilare il modulo sottostante e di restituirlo alla scuola.

- -

SEM - Modello di Arricchimento Scolastico

Nome Studente:____

Scuola: ____

Genitore di: ____

Professione/i:____

Telefono: (casa) _____________________(cell) _______________________

Sono disposto a dedicare un'ora del mio tempo come genitore volontario nel programma di arricchimento.

FIRMA ____________________

Figure 52. An open letter to Parents as Facilitators

Enrichment Clusters

The SEM
gives you the opportunity to be involved in exciting enrichment activities!
The only criteria to take part to your preferred activity is your own desire to create something unique !
Just like you!

Today you are given the chance to choose the enrichment cluster
YOU want to partecipate in!
Indicate your first, second and third choice.

Creative Writing in Italian

Let your imagination and the advice of a successful writer guide you in this creative writing cluster. Become a real author and explore different genres like poetry, novel, theater, short stories but also comic sketches and theater sketches!

English for Fun!

Learning English is easier and it's more fun through the songs of your favorite singers! Learn the songs of the most famous Broadway Musicals to improve pronunciation, vocabulary, and idiomatic phrases.

Let's have some fun!!!

Math, Entrepreneurship and Leadership

How do you start a start-up? How can you get funds?
How are costs and revenues calculated?
Put the organizational and entrepreneurial skills into practice and organize an event!
Who knows, we might even be named Entrepreneurs of the Year!

Figure 53. Leaflet First Session Enrichment Clusters

Session I – January - April Enrichment Clusters

The first session (January- April) offered three enrichment clusters. All students were placed in the cluster of their first choice.

CREATIVE WRITING IN ITALIAN

In order to introduce young writers to creative writing, two mentors were contacted and volunteered for conducting the cluster: a professional author and a publicist. They provided useful insights on how to make their stories as compelling as possible and to entertain the public. Indeed, students produced some funny lines that were an integral part of the sketches in the show.

Competences: Communicating in the Mother Tongue - Creative Writing

Dialoghi semi-seri

LETTERATURA
Nel mezzo del cammin di nostra vita mi ritrovai in una selva oscura…..ma se mi fossi portato una lanterna avrei visto qualcosa!

LETTERATURA
I Bravi: "Questo matrimonio non s'ha da fare, né ora né mai!"
Renzo: "Mai una gioia!"

STORIA
Ambientazione: Cristoforo Colombo sbarca nel nuovo continente
Cristoforo Colombo: "Queste sono le Indie!"
Amerigo Vespucci: "No dude, this is America!" (tratto dalla canzone di Gambino 'This is America')
Cristoforo Colombo: "E io cosa ho?"
Amerigo Vespucci: "La Colombia!"

TECNOLOGIA
Ragazzo: "Prof. Ho un'idea!"
Prof: "La lampadina non è avvitata bene!"

GEOGRAFIA
Prof: I ghiacciai si stanno ritirando, cosa possiamo fare?"
Studenti: "Spegnere il riscaldamento!"

MATEMATICA/ARTE
Studente: "Prof, a bene se disegno le espressioni?"
Prof: "E perché?"
Studente: Perché mi fanno impressione!"

Studente A: "Hai studiato per la verifica di arte?"
Studente B: "C'era la verifica?"
Studente A: "Si, sull'impressionismo!"
Studente B: (Urlo di Munich)

MUSICA
Studente A: "Tu cosa suoni?"
Studente B: "La lira"
Studente C: (tira fuori la moneta e la suona)

Figure 54. Text of original dialogues

CREATIVE WRITING IN ENGLISH

Listening to songs in English can help second language learners acquire grammar and vocabulary and improve spelling. Moreover, the language used in songs contains a lot of up-to-date language and colloquialisms. The Enrichment Specialist, with her Cambridge Proficiency degree in English conducted this cluster, introducing students to the world of Broadway shows by watching videos and listening to Musicals soundtracks to allow students to focus on understanding of the English language's rhythm, tone and beat. Each student wrote rhymes in English to express their own feelings about their SEM experience that ended up in a full text of a song.

Competences: Communication in a Foreign Language- Creative Writing

SEM SONG

Intro
STROFA 1
MY FRIENDSHIP WITH YOU
IS SOMETHING STRONG AND TRUE
COM'ON,SING THIS SONG
AND DANCE ALL DAY LONG
JOIN A SEM CLUSTERS
TO WHICH YOU BELONG
TOGETHER WE'RE HAPPY
TOGETHER WE'RE STRONG
RIT
WITH SEM AT SCHOOL
IT'S VERY COOL
IN ALL OUR CLUSTERS
WE'RE OUR OWN MASTERS
OUT
START A JOURNEY
THAT NEVER ENDS
SEM HELPS YOU
FINDING NEW FRIENDS
RIT
SEM IS SUPER
IT CREATES YOU A FUTURE
PURSUE YOUR GOALS
NURTURING YOUR SOULS
STROFA 2
IF WE ALL WORK TOGHETER
WE'LL BE HAPPY FOREVER
IF YOU THINK YOU'RE ALONE
I'M SORRY,BUT YOUR MIND'S BLOWN
CLUSTERS AT SCHOOL
EQUALS FRIENDSHIP AND NEW RULES
SEM IS GONNA TEACH YOU
HOW TO CREATE AN AWESOME FUTURE
BRIDGE
WE ARE CRAZY
WE ARE GROUP
WE ARE FRIENDS
WE ARE SEM
S FOR SIMPLE
E FOR EXITING
M FOR MAGIC
WE ARE SEM

Figure 55. Original text of SEM song

MATH AND ENTREPRENEURSHIP AND LEADERSHIP

The Cluster consisted in a real entrepreneurial project for the planning of an end-of-the-year show. A professional Business Consultant volunteered for this cluster, who guided students through the process of designing a Business Plan in which to define: Budget, Production Costs, Costs for renting a theatre, Calculation of Selling Price of tickets, etc., This activity is designed to develop understanding of group dynamics and student leadership skills in relating to Public Institutions, to Public Administrations, to copyright permissions.

Competences: Mathematical competence - Sense of Initiative and Entrepreneurship - Social and Civic Skills / Learning to Learn

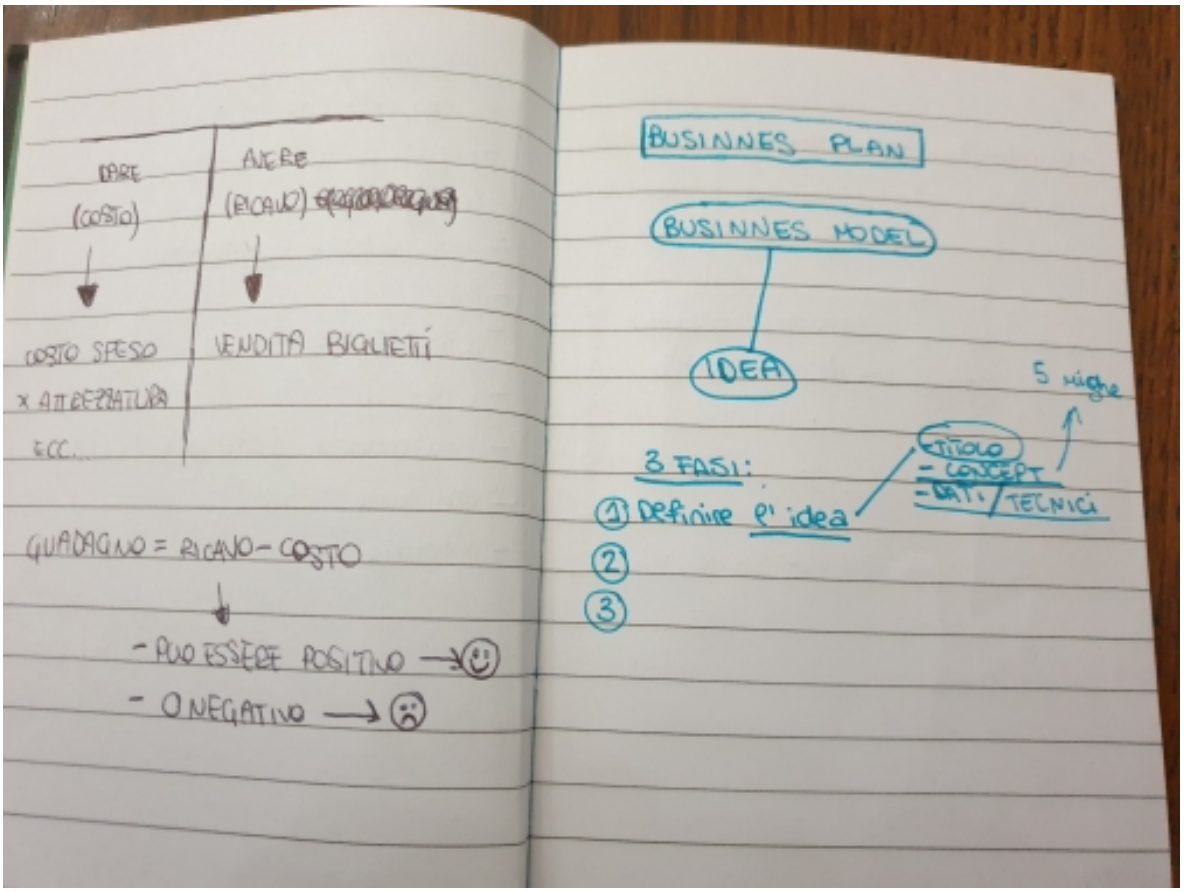


Figure 56: Sketches on Entrepreneurship

Session II – April-May Enrichment Cluster

The second session (March-May) offered three enrichment clusters. All students were placed in the cluster of their first choice.

DANCE ACADEMY

A professional dancer and choreographer volunteered to conduct this cluster in which students were free to design their choreographies for the musical on the song selected and learned by the students participating in the English for Fun previous cluster.

Competences: Cultural Awareness and Expression Competences

THEATRE

An amateur actor and experienced drama teacher offered her expertise in planning out how to build young students into incredible actors. She introduced students to the magical world of drama, by showing how to create compelling characters onstage, the importance of articulation, projection and voice variation and guiding them to work together, build trust, and involve every member in a performance.

Competences: Cultural Awareness and Expression Competences

STORYTELLING AND VIDEOMAKING

A tech engineer volunteered to introduce students to the production of a semi-professional video. His approach to today's digital student was 'learn by doing', but at the same time he made them aware of the risks of the web.
Students decided to produce a video to document the enrichment activities in the clusters by interviewing students and mentors. The materials were used to produce a video that was projected in the theatre at the beginning of the show.

Competences: Digital Competence – Multimedia Skills

Enrichment Clusters

The SEM
gives you the opportunity to be involved in exciting enrichment activities!

Today you are given the chance to choose the enrichment cluster
YOU want to partecipate in!
Indicate your first, second and third choice.

Dance Academy

Do you have a mad desire to dance?
Watch videos of the best and create your first choreography!
Just listen to music and let yourself be transported by the rhythms of dance, pop, or hip-hop music!
But above all, have fun!

Theatre

Theater is a magical universe!
Have fun discovering the secrets of professional actors, acting, moving on stage and managing your emotions.
You will be the protagonist of a real show, where you will taste the real thrill of treading the scenes!

Videomaking

Learn the techniques of shooting and recording moving images, and how to upload music and insert graphics to make a funny and original video!
In the pre-production phase, in addition to the story, you will have to choose the music, write the storyboard, and choose the locations.

Figure 57. Leaflet on Enrichment Clusters – Session II

5.9 Individual Type III Enrichment activities

The simulation of the Triad model served students to understand how one's interests can revolve into more advanced and self-selected follow-up studies (Type III). In other words, this experience served as a means for decision making about the nature and extent of subsequent involvements. Type III Enrichment opportunities were available for students who demonstrated above average ability in a self-selected area of interest and who also showed a willingness to develop task commitment and creativity in connection with the topic. Teachers were provided with information that would encourage students to pursue their topics using the *modus operandi* of the practicing professional.

Individual Type III Creative activity: Music Composition

One Y8 students who displayed a commitment toward music composition offered to write the musical composition of the SEM song. Pull-out activities and the support of an external music teacher gave this female student the opportunity to express her creativity through the creation of an original piece or work of **music**, as a firsthand composer.

The first inspiration for her piece of music came from the lyrics she contributed to write in the cluster 'English for fun' she enrolled to. She offered to bring her guitar in class and she started to create the melody singing along with the students in her cluster.
She asked to freely pick the lyrics to create the most powerful tune, which involved the repetition of familiar themes in verse and chorus sections to create a consistent but varied dynamic throughout the song.
Finding and developing original musical ideas is a constant challenge, even for advanced musicians and experienced composers.

Competencies – **Music Composing Skills**

Competences: Cultural Awareness and Expression

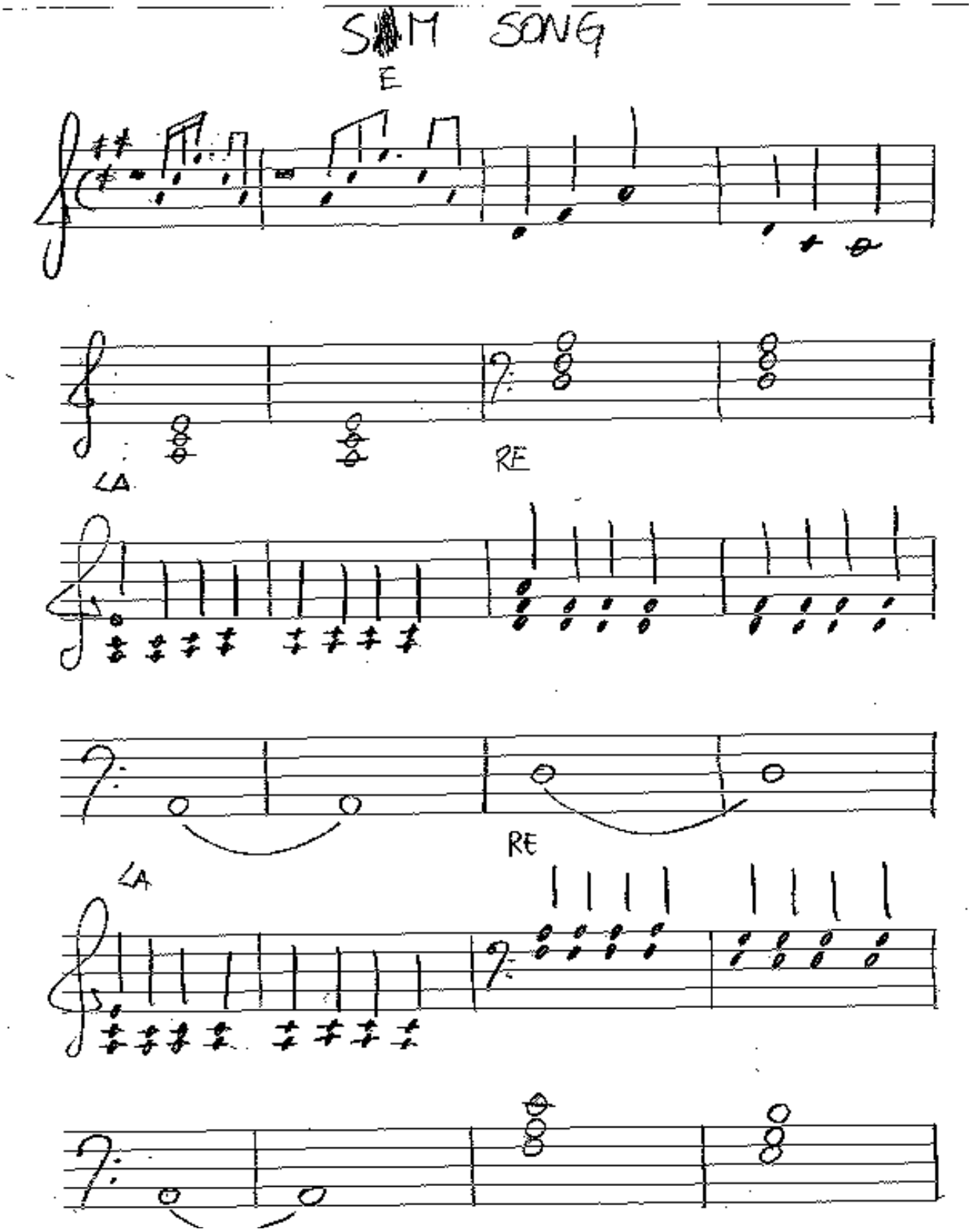


Figure 58. Type III Original Product: Music Composition

Individual Type III Creative activity: Graphic Design

A group of students offered to create the poster to publicize the end-of-year event.
This enrichment activity took place during the art classes and buy-tyme, as well as independent work at home.
Students were able to use the softwares to create an original invitation card for parents, as well as a poster in a PDF file to be printed and sent via email to local authorities and schools in the district.
Competences: Cultural Awareness and Expression

Figure 59. Poster Musical

Individual Type III Creative activity: SEM logo

Students in the Dance Cluster came up with the idea of designing a logo and to use it to personalize T-shirts as part of their stage costumes for the show. When asked why they chose two blue wings for their logo they replied: ‘because the SEM frees our talents and gives strong wings to our dreams’.

Figure 60. SEM logo

Figure 61. SEM T-shirt

The students decided to produce the T-shirt for all students participating in the research project and relied on the funds obtained through a donation that one of the facilitators gave to support the SEM project.

Some Y8 students wore this T-shirt for their final Y8 exam in front of the School Committee.

5.10 Involvement of the School Choir

The School Choir volunteered to join in the Musical. The Choir Director, a professional music teacher at the School, auditioned singers and selected new members from those who volunteered. Once a core group was selected, the director taught his singers the music selected for the Musical and finessed their interpretation of the delivery of it for the end-of-the-year show.

The SEM song was sung by both the Choir and the students in the Video-making Cluster.

5.11 Celebrate Success: The End-of-the Year Event

The SEM promotes creative productivity on the parts of students.

The major goal of each enrichment cluster is the production of a creative and original product or service to be presented to an authentic audience. All the original products produced in the clusters were to contribute to the creation, planning and staging of a Musical which reproduced the TV format of a talent show.

The enrichment specialist wrote the plot: The local authorities decided to move Maffei school from the historic center to a suburb and to build a parking lot for cars instead. The authorities pretended Maffei School was assessed as 'Average' and therefore was in grave danger of being closed down anyway. The principal realized that this was just a pretext, so she asked for six weeks to turn 'Average' into 'Outstanding', proving that Maffei school is an excellent school for talent development. The students decide to take drastic action and talk to the enrichment specialist for advice. They realize that in that length of time they could arrange a talent show to demonstrate how Maffei School nurtures their many gifts and talents.
When the staff and pupils decide to fight back, fun and frolics ensue making this an extremely entertaining show for students to perform.

Figure 62. Maffei's Got Talent Musical (students' faces altered for privacy issues)

The end of the year event was fully arranged by the students participating in the research study. All creative products made a decisive contribution to the success of the musical.
The group of entrepreneurs selected the most convenient theatre, drafted a business plan, contacted the local authorities to get permissions, communicated the SIAE the use of song themes covered by copyright, and collected a generous donation to pay for expenses. The creative writers were able to write comic lines that were included in the plot. The English creative writers wrote the lyrics of the SEM song. The actors learned their lines and managed to perform in front of an audience. The dancers created their own choreographies and did an outstanding performance. The singers of the School Chorus sang the famous songs themes in English and contributed to the overall success of the event. The video-makers produced a video by filming all the students creative activities in the many clusters throughout the school year, proving their ability to edit a semi-professional artwork that will be posted in the school website.
The Y7 student produced a piece of work that opens up to her future career as a songwriter.
The students in the School Choir were able to dismiss the classical repertoire they were used to perform and improved their English speaking skills by learning American songs.

CHAPTER SIX

6.1 The Effectiveness of the Schoolwide Enrichment Model on School Change

The SEM provides several instruments to assist with assessment and evaluation components of the enrichment activities.

Data analysis reveals positive changes in student and teacher attitudes. Student creative products are numerous and exceeded the norm of typical student creative output. Most notable among qualitative data analysis were:

- large increases in student centered enrichment activities and work on self-selected interests,
- greater cooperation between classroom teachers and parents,
- appreciation of a new professional figure, namely, gifted education specialists, to support classroom teachers in schools,
- more favorable attitudes toward special programming on the part of teachers and principals,
- a new perspective on the possibility of having special programming in public schools on the part of parents
- a general new awareness and understanding of enrichment programs and gifted education goals
- remarkably favorable changes in attitudes toward education and the emotional and educational needs of the gifted on the part of classroom teachers and the general student population,

6.2 Population involved in the treatment schools

The implementation of the *Schoolwide Enrichment Model* should encompass entire school units, but unfortunately this was not made possible.
At Maffei treatment school only two out of 46 teachers agreed on taking part in the pilot project. Therefore, only 45 students took part in the research study (two classes), out of 451 students.
At Trissino treatment school, only three out of 24 teachers agreed on taking part in the pilot project. Therefore, only 25 students took part in the research study (two classes), out of 184 students.

The SEM provides several instruments to assist with assessment and evaluation components of the enrichment clusters.

Three forms have been used at the end of the Enrichment Clusters activities:

Parental Attitudes About Enrichment Opportunities

Student Survey About Enrichment Clusters
Facilitator Survey on Enrichment Clusters

to assess students, parents, and facilitators' satisfaction with their cluster experiences.

Questionnaires were submitted to the students, parents and facilitators in the treatment school in order to collect data about the enrichment experience.

6.3 Data Collection at Treatment School Maffei

Data were collected over an 18-month period of school time (two schoolyears) and included student and parent responses in open-ended surveys and student-completed forms. The students developed interview questions in collaboration with their peers to capture the phenomenon of participation in Enrichment Clusters over time. Among other questions, students asked schoolmates (a) to compare a typical school day to the enrichment activities, (c) student progress on their enrichment projects, and (d) to reflect on student involvement in enrichment clusters.

The interviews conducted by students in the Video Making Enrichment Cluster were video recorded and contributed to the making of a video. The researcher transcribed these interviews by a service.

6.4 Parental attitudes about enrichment opportunities at Treatment School Maffei

The Parental Attitudes About Enrichment Opportunities (Gentry & Reis, 1995) is a useful instrument to measure changes in parent perception and satisfaction as they implement enrichment cluster programs. The instrument contains 10 statements measuring parents' perception of enrichment and their satisfaction with enrichment. The final section includes three open-ended questions to which parents may respond in writing (see Figure 69).

Parental Attitudes about Enrichment Opportunities

Parents' Name: _____Child's Grade: _____

I am the child's □□Mother □□Father □□Guardian

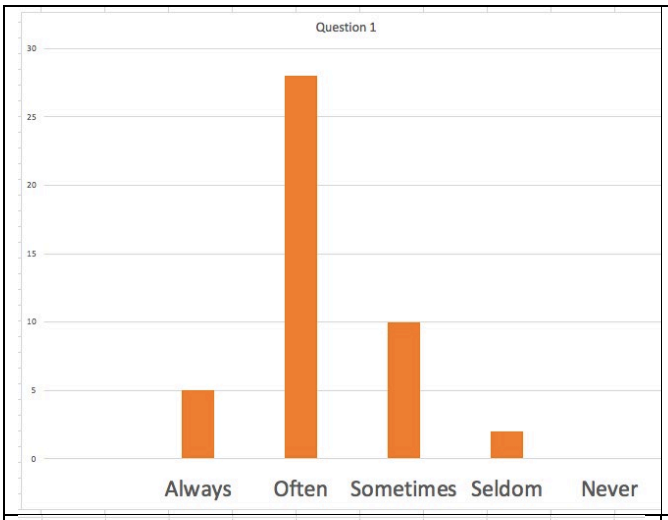
For the purposes of this questionnaire, enrichment is defined as planned experiences beyond regular classroom work designed to enrich your child's education. Examples include speakers, videos, and interest-based activities that extend learning.

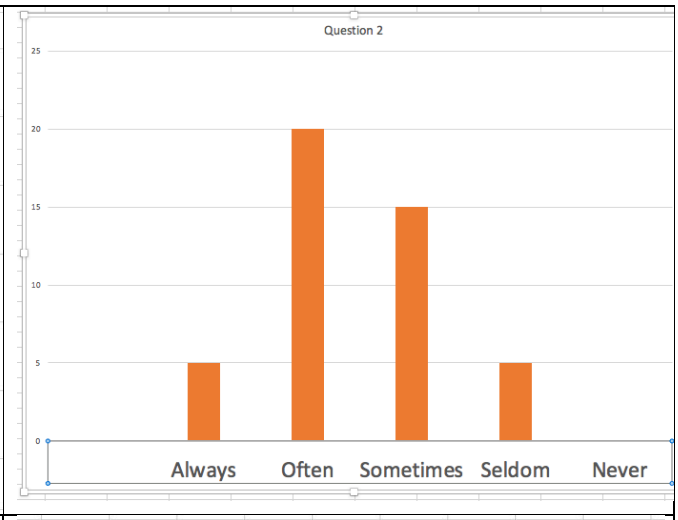
Following are 10 statements. Please respond to them by circling the number that best rep- resents your answer, using this scale:

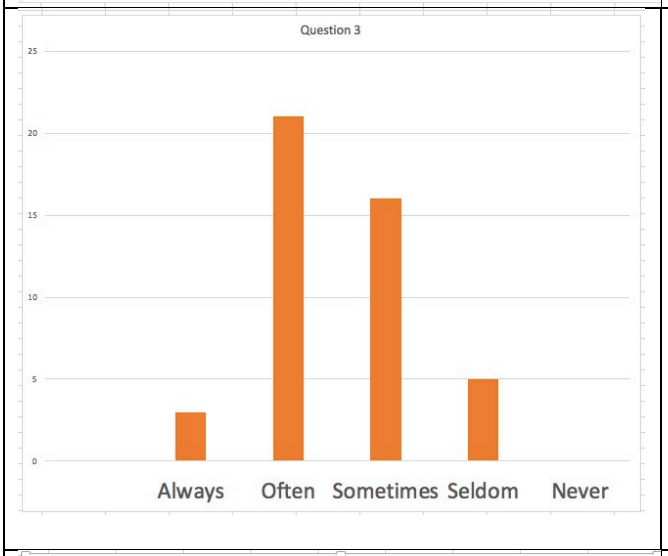
1 *Always* **2** *Often* **3** *Sometimes* **4** *Seldom* **5** *Never*

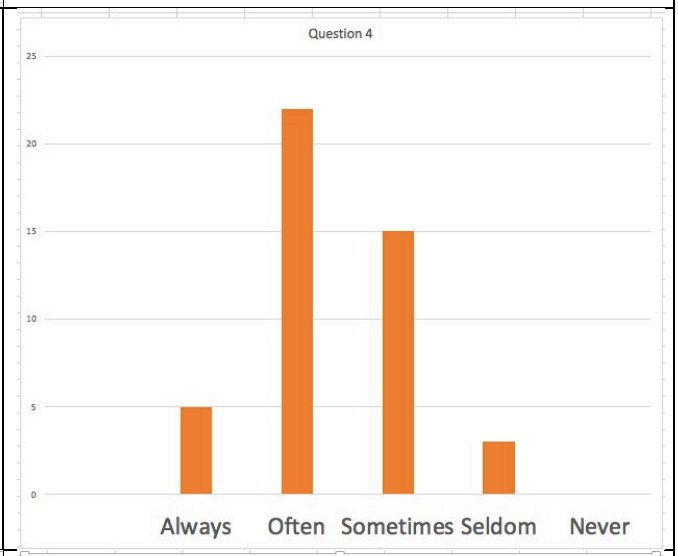
	1	2	3	4	5
My child has opportunities for enrichment experiences in school.					
During school my child is encouraged to develop and pursue his or her talents.					
My child develops projects in the classroom that reflect his or her interests.					
My child has opportunities to work with other students in his or her classroom who share common interests.					
My child's school offers enrichment opportunities for all students.					
My child enjoys the enrichment opportunities in his or her school or classroom.					
My child is happy about attending school.					
I am informed about the educational enrichment activities for my child at school.					
I have the opportunity to become involved with enrichment opportunities in school.					
I am satisfied with enrichment opportunities/experiences my child receives at school.					

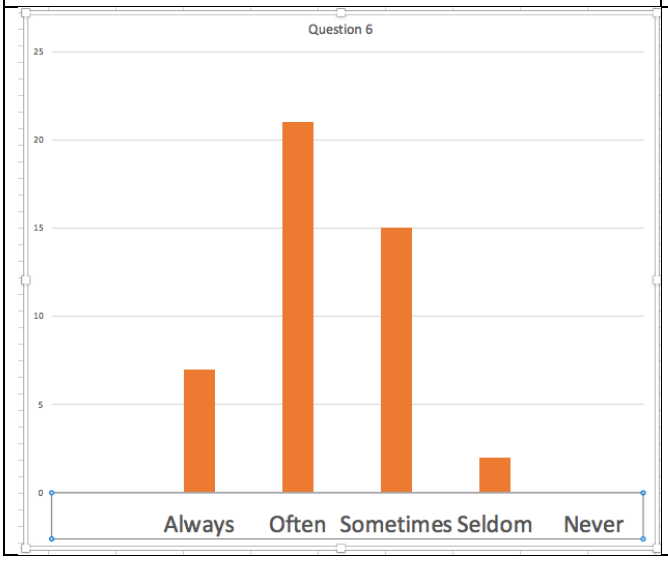
Figure 63. Questionnaire on Parental attitudes about enrichment opportunities instrument.

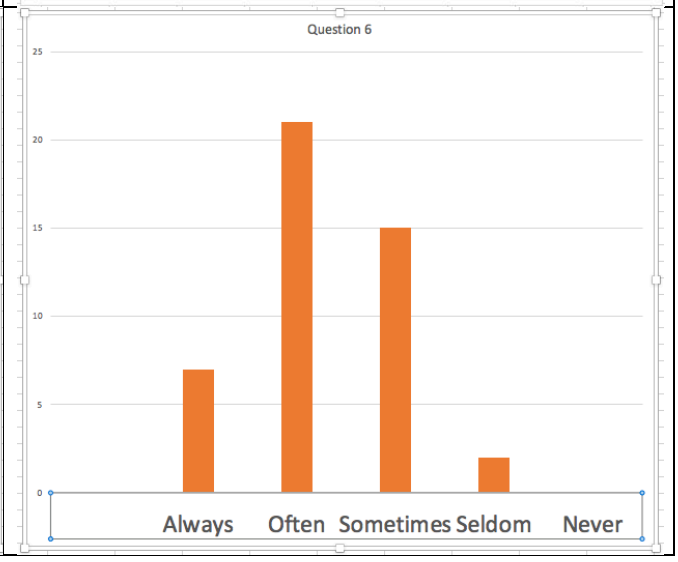

Question 1
30
25
20
15
10
5
0
Always
Often
Sometimes
Seldom
Never


Question 2
25
20
15
10
5
0
Always
Often
Sometimes
Seldom
Never


Question 3
25
20
15
10
5
0
Always
Often
Sometimes
Seldom
Never


Question 4
25
20
15
10
5
0
Always
Often
Sometimes
Seldom
Never


Question 6
25
20
15
10
5
0
Always
Often
Sometimes
Seldom
Never


Question 6
25
20
15
10
5
0
Always
Often
Sometimes
Seldom
Never

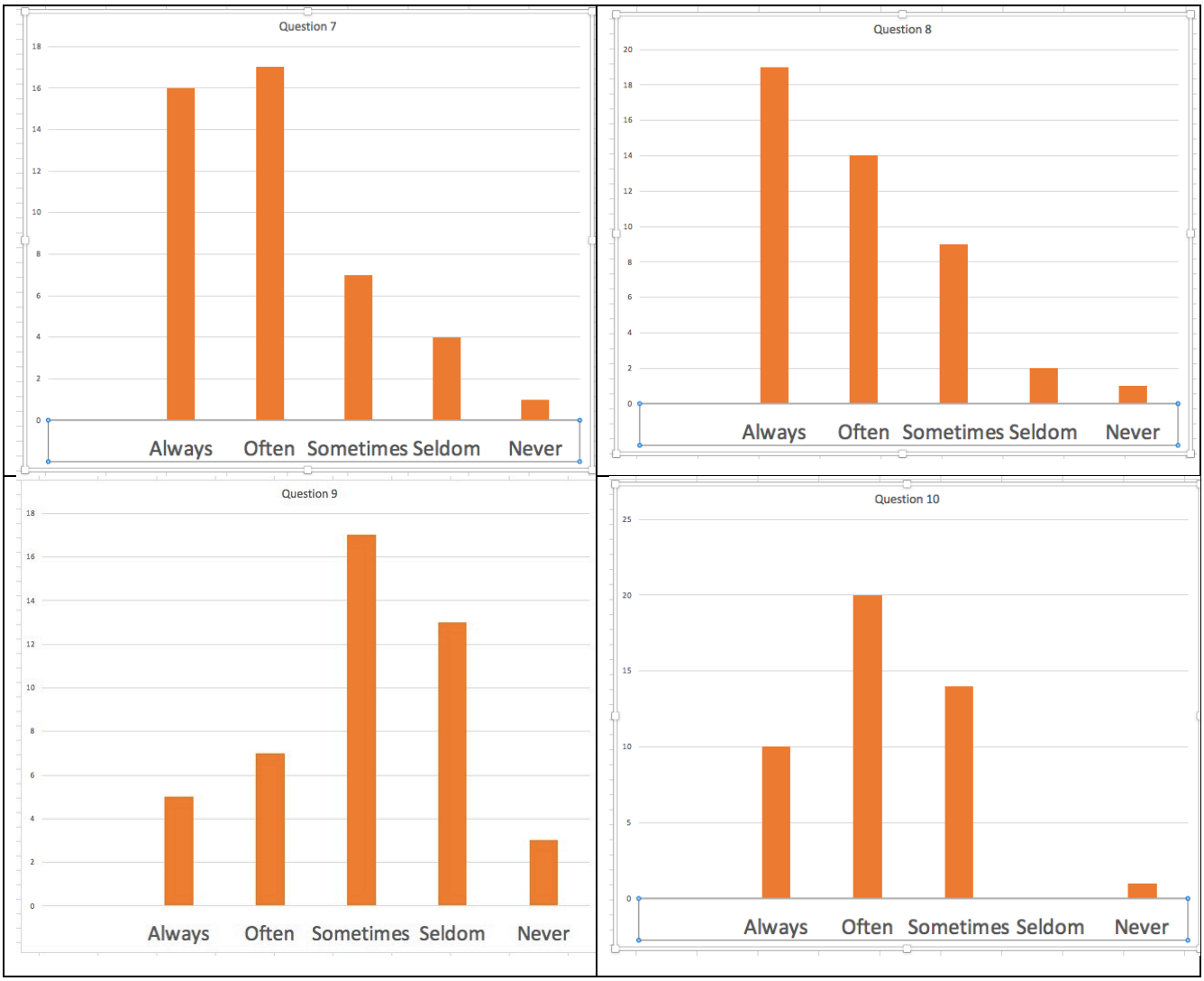


Figure 64. Data on Parental attitudes about enrichment opportunities instrument.

The above graphs show a general appreciation for the SEM activities offered during the SEM implementation that infused enrichment into the regular school setting.

6.5 Gifted Student Parental attitudes about opportunities offered to gifted children

The parents of the identified gifted student agreed on filling in a questionnaire on their experience in the Italian school setting.

Scheda Opinione Genitori di Figli Gifted

Name and Surname : _____

Your feedback and advice are key to understanding parents of gifted children's experience and family's expectations toward the schools.

1. How did you learn about giftedness?_____
2. At what age did you notice any peculiar characteristics in your child?
   _____
3. When and why did you decide to have your child administered an IQ Test?
   _____
4. Did you value different experts before choosing the one that suited you best?
   _____
5. How was your child's school experience before taking the IQ Test?_____
6. Would you suggest other parents to have their children administered an IQ Test? □
   Yes □No
   If Yes, what age? _____
7. Would you please describe how teachers' attitudes changed after the IQ Test?
   _____
8. Did you notice any change in your child once he/she learned about being gifted? If yes, briefly describe his/her behaviors:

   towards you as parents_____
   towards his/her brothers and sisters_____
   towards his/her peers_____
   towards his/her teachers_____
9. As parents, do you feel schools should adopt any strategies to support gifted students?
   _____

10. In your opinion, teachers participating in the SEM implementation changed their attitudes towards gifted students?

_____

11. Your child benefitted of participation in SEM enrichment activities?

If yes, which ones?_____

12. During the SEM implementation any acceleration opportunities have been offered to your child?
If yes, which ones?_____

Your answers will be kept anonimous and used for research purposes.
THANK YOU

Figure 65. Gifted Student Parental attitudes about opportunities offered to gifted children

The Parents of the gifted student reported that the display and their understanding of their child's singular characteristics were pretty evident at the age of 18 months. Their child's school experience through Elementary school was a complete disaster as teachers did not understand their child's needs. They suggest other parents to investigate the nature of their children by consulting more specialists in the field as soon the child experience some discomfort. They child was very grateful to be given the chance to become fully aware of his potentiality, and at the same time he realized that he may be now asked to demonstrate his capabilities. The parents openly informed the school of their child's results and noticed a more tolerant attitude towards him. They recognize their child benefit from the SEM implementation which gave him the possibility to pursue his interest but complained no acceleration strategies were offered in his strength area. They concluded by affirming that the Italian School is not yet able to meet gifted students' needs.

6.6 Student Survey About Enrichment Clusters at Treatment School Maffei

The *Student Survey About Enrichment Clusters* (Gentry & Maxfield, 1995) is a useful instrument for assessing how enrichment clusters provide for interest/enjoyment, challenge, meaning, and choice as seen by the students in the clusters. It was developed to assess students' attitudes toward enrichment clusters with respect to the dimensions of interest/enjoyment, challenge, meaning, and choice. Students respond to the items by checking a box (see Figure 70).

Student Survey About Enrichment Clusters

Marcia Gentry & Lori R. Maxfield University of Connecticut

Name: _____ Grade: _____
Gender: F M

Teacher: _____ Facilitator: _____

Cluster: _____

We would like to know how you feel about enrichment clusters. Read each sentence and indicate how much you agree with it by putting an X in the box. There are no right or wrong answers. Your answers will be kept secret. Remember to mark an X for each sentence. In the example below, the person agreed with the sentence.

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
E**xample:** My cluster is enjoyable.				X	
1. I like what I do in my cluster.					
2. What I do in my cluster fits my interests.					
3. What I do in my cluster is interesting.					
4. The activities I do in my cluster are enjoyable.					
5. I have an opportunity to work on things in my cluster that interest me.					
6. I look forward to my cluster.					
7. What I learn in my cluster is interesting to me.					
8. I like working in a cluster.					
9. I have to think to solve problems in my cluster.					
10. My projects offer useful solutions to problems.					
11. I use challenging materials and books in my cluster.					
12. e cluster leader encourages me to solve challenging problems.					
13. I study problems that affect my life.					

14. I like the projects I work on in my cluster.					
15. My projects are important to others.					
16. My projects are important to me.					
17. My cluster leader challenges me to do my best.					
18. My work can make a difference.					
19. When we work together, I can choose my partners.					
20. I can choose to work in a group.					
21. I can choose my own projects.					
22. I can choose to work alone.					
23. I can choose materials to work with in the cluster.					
24. When there are many jobs, I can choose the ones that suit me.					
25. I can choose an audience for my product.					

Thank you. — Please make sure that you have indicated an answer for each sentence

Figure 66. Student survey about enrichment clusters.

Students' Survey about Enrichment Clusters

DANCE

	ENRICHMENT CLUSTER: DANCE	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	I like what I do in my cluster.			X	XXXXXXXX	XXXXX
2	What I do in my cluster fits my interests.		X	XXX	XXXXXX	XXXX
3	What I do in my cluster is interesting.			X	XXXXX	XX
4	The activities I do in my cluster are enjoyable.			X	XXXXXXXXX	XXXX
5	I have an opportunity to work on things in my cluster that interest me.			XX	XXX	XXX
6	I look forward to my cluster.			XXXXXXX	XXXXX	XX
7	What I learn in my cluster is interesting to me.		X	XX	XXXXXXXX	XXX
8	I like working in a cluster.			XX	XXXXX	XXXXXXX
9	I have to think to solve problems in my cluster.	X	XXX	XXXX	XXXX	XX
10	My projects o er useful solutions to problems.	X	X	XXXXX	XXXXX	XX
11	I use challenging materials and books in my cluster.	X	XXXXX	XXXXXX	XX	
12	The cluster leader encourages me to solve challenging problems.			XXXXX	XXXXXXX	XX
13	I study problems that affect my life.	XX	XX	XXXXXXX	XXX	
14	I like the projects I work on in my cluster.				XXXXXXXX	XXXXXX
15	My projects are important to others.		XX	XXXXX	XXXXXXX	
16	My projects are important to me.			X	XXXXXXXXXX	XX
17	My cluster leader challenges me to do my best.			XX	XXXXXXXX	XXXX
18	My work can make a difference.		X	XXXXX	XXXXX	XXX
19	When we work together, I can choose my partners.	X	XX	XX	XXXXXXXXX	
20	I can choose to work in a group.		XX	XX	XXXXXXXX	XX
21	I can choose my own projects.	X	XXX	XXXXX	XXXX	X
22	I can choose to work alone.	XXX	XXXXX	XXX	XXX	
23	I can choose materials to work with in the cluster.	XX	XXX	XXXXX	XXX	X
24	When there are many jobs, I can choose the ones that suit me.		XXXX	XX	XXXXXX	XX
25	I can choose an audience for my product.	XX	XXXX	XX	XXXXXX	

Table 67a. Students' Survey: Questionnaire on Enrichment Clusters

THEATRE

	ENRICHMENT CLUSTER: THEATRE	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	I like what I do in my cluster.				XXXXXX	XXXXX
2	What I do in my cluster fits my interests.			X	XXXXXX	XXXX
3	What I do in my cluster is interesting.			X		
4	The activities I do in my cluster are enjoyable.				XXXXXXX	XXXX
5	I have an opportunity to work on things in my cluster that interest me.			XXX	XXXXXXX	X
6	I look forward to my cluster.		X	XXX	XXXXXX	
7	What I learn in my cluster is interesting to me.			XX	XXXXXXX	XX
8	I like working in a cluster.				XXXXX	XXXXXX
9	I have to think to solve problems in my cluster.	XXX	XXX	XX	XX	X
10	My projects o er useful solutions to problems.		XXX	XXXXXX	X	X
11	I use challenging materials and books in my cluster.	X	X	XXX	XXX	XXX
12	The cluster leader encourages me to solve challenging problems.		XXXX		XXXXX	XX
13	I study problems that affect my life.	XXX	XXXX	XX	X	X
14	I like the projects I work on in my cluster.				XXXXXXXXX	XX
15	My projects are important to others.			XXXXXX	XXXX	X
16	My projects are important to me.			XXX	XXXXX	XXX
17	My cluster leader challenges me to do my best.			X	XXX	XXXXXX
18	My work can make a difference.		X	XXXX	XXXX	XX
19	When we work together, I can choose my partners.		X	XXX	XXXXX	XX
20	I can choose to work in a group.			XXX	XXXXX	XXX
21	I can choose my own projects.		X		XXXXXXX	XXX
22	I can choose to work alone.	XXX	XX	XX	XXXX	
23	I can choose materials to work with in the cluster.	X	XXXX	XX	X	XXX
24	When there are many jobs, I can choose the ones that suit me.		X	XX	XXXX	XXXX
25	I can choose an audience for my product.	X	XX	XX	XXXX	XX

Table 67b. Students' Survey: Questionnaire on Enrichment Cluster of Theatre

VIDEOMAKING

	ENRICHMENT CLUSTER: VIDEO-MAKING	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	I like what I do in my cluster.	X		XXXX	XXXXXXXXXXXXX	
2	What I do in my cluster fits my interests.	X	XXX	XXXXX	XXXXXXXX	XXX
3	What I do in my cluster is interesting.	X	X	XX	XXXXXXXXXXXXXX	
4	The activities I do in my cluster are enjoyable.	XX	XX	XXXX	XXXXXXXX	XXX
5	I have an opportunity to work on things in my cluster that interest me.	X	XX	XXXXX	XXXXXXX	XXXX
6	I look forward to my cluster.		XXXX	XXXXXX	XXXXXXXXX	
7	What I learn in my cluster is interesting to me.	X	XX	XX	XXXXXXXXXXX	XX
8	I like working in a cluster.	X	X	XX	XXXXXXXXXX	XXXXX
9	I have to think to solve problems in my cluster.		XXXX	XXXXXXX	XXXXXX	XX
10	My projects o er useful solutions to problems.	X	XX	XXXXXXXXX	XXXXX	XX
11	I use challenging materials and books in my cluster.	XX	XXXXX	XXXXXXX	XXXXX	
12	The cluster leader encourages me to solve challenging problems.	X	XXXXXXX	XXXXX	XXXXXX	
13	I study problems that affect my life.	XXX	XXXXX	XXXXX	XXXXXX	X
14	I like the projects I work on in my cluster.		X	X	XXXXXXXXXXXXX	XXX
15	My projects are important to others.		XX	XXXXXXXXX	XXXXXXX	X
16	My projects are important to me.			XXX	XXXXXXXXXX	XXXXX
17	My cluster leader challenges me to do my best.		XXXXXX	XXXXXXX	XXXXX	XX
18	My work can make a difference.		XX	XXXXXXXX	XXXXXX	XXX
19	When we work together, I can choose my partners.	XX	XXX	XXXXXXX	XXXXXX	XX
20	I can choose to work in a group.		XXXXX	XXXXX	XXXXXXXX	X
21	I can choose my own projects.	XXX	XXXXX	XXX	XXXXXXXX	
22	I can choose to work alone.	XXX	XXXXXXXXX	XXXXX	XX	
23	I can choose materials to work with in the cluster.		XX	XXXXXXXX	XXXXXXX	X
24	When there are many jobs, I can choose the ones that suit me.	X	XXXX	XXX	XXXXXXXXXX	
25	I can choose an audience for my product.		XXXXXXX	XXXXXXXX	XXXX	

Table 67c. Students' Survey: Questionnaire on Enrichment Cluster of Video-making

Students surveys show a general appreciation of the activities carried out in enrichment clusters although students participating in the videomaking cluster display a more critical attitude.

Students Interviews at Treatment School Maffei

During Session II of the Enrichment activities arranged during the second year of SEM implementation, students in the videomaking cluster video-recorded some interviews which concentrated on the nature of the school day from student perspectives: time for exploration of interests within the traditional framework of the school day, knowledge of enrichment activities and their availability.
Students' interviews were made only on a voluntary basis and data stored in compliance with the National and European guidelines on good practice in taking, using and storing young people's' images.
For personal data protection, interviews have been transcribed.
All interviewed students indicated that, thanks to the SEM program, they had the chance to investigate interest areas not commonly covered in regular school material. They appreciated the enrichment activities for their learning-by -doing approach, which they considered more active and dynamic way of learning compared to frontal lesson passive learning in the regular classroom. Some students also admitted enrichment clusters gave them the chance to became aware of their classmates' interests and talents they were not aware of before participating in the same cluster. In general students' wish is that SEM activities could be included in the school schedule on a regular basis.

Date	Interview	Cluster
May 9th, 2019	Student MZ	Video Making
May 9th, 2019	Student D	Video Making
May 16th, 2019	Student AC	Theatre
May 23rd, 2019	Student JG	Video Making
May 23rd, 2019	Student GR	Dance

Figure 68. Student Interviews

6.7 Facilitator Survey on Enrichment Clusters at Treatment School Maffei

Facilitator Survey on Enrichment Clusters is a useful instrument to have the facilitator feedback on his/her satisfaction with the cluster experience he volunteered for.

Enrichment Clusters Facilitator Evaluation Form

Name: _____

Your feedback and input are essential to the success of the enrichment cluster program. By taking a few minutes to complete the evaluation questions below, you will be assisting us in improving and further developing enrichment clusters for students.

13. What did you enjoy most about facilitating your cluster?
    _____
    _____
14. Were the clusters well organized? How can the program be changed or improved?
    _____
    _____
15. What were the students' reactions to your cluster?
    _____
    _____
16. What types of competences did you present in your cluster?
    _____
    _____
17. What products (if any) were produced by students in your cluster?
    _____
18. Are you interested in facilitating another cluster? □ Yes □ No
    If yes, what topic? _____

19. Can you recommend other potential facilitators and possible topics for the next session?
    _____
20. What recommendations would you make for scheduling the clusters (i.e., how many sessions, length of sessions)?
    _____
    _____
21. Other comments: _____

Figure 69. Enrichment clusters facilitator evaluation form.

Results on Questionnaire for Facilitators on Enrichment Opportunities

Facilitators affirmed they were enthusiastic about guiding enrichment clusters. The facilitator of the videomaking cluster faced some initial problems in getting full control of class dynamics as in his opinion today's teenagers are more challenging. He argued students in his cluster were not used to participate in enrichment activities and the fact that no marks were used to value their performance was initially misunderstood by students. Moreover, he noticed that students were not used to be guided by the new figure of a mentor within the traditional school setting. In the end he was positively impressed by the outcomes of the videomaking cluster as students produced a semi-professional video to which all students participated in and contributed to.

The facilitator of the Theatre Cluster was impressed by the commitment students displayed throughout the short period of time she was given to guide unexperienced teenagers to overcome some of their fears and shyness to act on stage: Students managed to control their emotions, to elaborate their inner emotions and use them to give credibility to their character. The facilitator retired and she would volunteer to guide another cluster in a SEM school as it proved to be a very positive experience.

The facilitator of the Dance Cluster described her involvement in the SEM project as a very rewarding experience from both the professional and personal point of view. Students were highly motivated and displayed the unexpected ability to design most part of their choreographies, also teaching the newly created routines to classmates in the dancing group.

All facilitators agreed on the positive outcomes of their clusters in promoting students' creativity.

Facilitators' Interviews at Treatment School Maffei

Some mentors who volunteered to guide clusters accepted to be interviewed and video-recorded.

Date	**Interview**	**Participant**
May 9th, 2019	FP	Theatre
May 16th, 2019	EM	Dance
May 23rd, 2019	MS	Video Making

Figure 70. Facilitatosr' Interviews

6.8 Data Analysis and Trustworthiness

The researcher, who has two Degrees in Gifted Education and Talent Development, analyzed the data using inductive and deductive thematic analysis.

Credibility of findings was supported by triangulation of data sources, perspective, and time (Lincoln & Guba, 1985). For example, data sources included interviews, student work, and open-ended surveys. In addition, interviews captured the process of Enrichment Clusters and Type III Enrichment from the perspective of students, parents, and the facilitators.

Confirmability was supported through external audits (Lincoln & Guba, 1985) by Dr Zanetti and the supervision of the SEM Outreach Coordinator who, without being directly involved in the implementation process, examined both process and product of the research study for accuracy and to evaluate that findings, interpretations, and conclusions were supported by data.

Data provided evidence that the Enrichment Specialist implemented core components of the SEM, including Enrichment Clusters and Triadic Model (Type I, II and III Enrichment) using structures, materials, and processes as prescribed by model developers, that she exhibited skill in implementation, and that students were engaged and involved in program content.

6.9 Treatment Group

In order to be selected for participation in this study, school officials had to agree on a specified set of enrichment programming procedures set forth in the *Schoolwide Enrichment Model*. It was also necessary for each school to accept an Enrichment Specialist, namely the researcher, on at least a half-time basis. In all cases, written agreement was obtained from administrations and boards of education as further assurance that actual *SEM* implementation would take place. Each site also agreed to permit the researcher to get access to the school. Participating schools were not expected to identify students who were of above average ability in one or more areas of performance or potential. Nonetheless, a set of identification tools to create individual profiles of the students involved in the research study were adopted, such as the Raven Matrixes, the Renzulli Rating Scales, the Renzulli Learning System, student interests forms set forth in the model and parents' surveys.
Experimental schools were provided in-service training related to the implementation of the treatment model.

At each experimental school site, the enrichment specialist in cooperation with the enrichment teams organized a wide variety of general enrichment activities on topics, issues, and materials not ordinarily covered in the regular curriculum and a wide variety of systematically organized process training skills. General enrichment was provided to all students participating in the project in the experimental schools for two academic years. Calendars of enrichment activities were developed, and students participated through cross-grade events, grade level or single -classroom events, or through special interest groups.

The only criteria adopted in determining which students would participate in the enrichment clusters was students' interests.

Among the many procedures provided by the Model, the main tool of the SEM adopted throughout the research was the Profiler and all enrichment activities were arranged on the basis of the data obtained through students' individual profiles.
Enrollment to self-selected clusters related to a topic or area of study of students' interests was the norm and all students were placed in their first-choice cluster. Cluster groups generally consisted of cross-grade students or students in the same grade who shared a similar interest in a particular topic or area of study.

The Triad model provided to all students participating in the study an overview of how a Type I activity can revolve into more advanced and self-selected follow-up studies related to a given topic or area of study (Type III). This activity served to both teachers and parents to understand how enrichment activities can encourage students to pursue their topics using the *modus operandi* of the practicing professional.

The researcher trusts that these experiences will serve as a means for decision making about the nature and extent of subsequent program involvements.

6.10 Control Schools

In order to protect control populations from contamination by aspects of the *SEM* treatment, the control group was not located within the same school building of the experimental group. The School selected to serve as control group during the second year of SEM implementation belongs to the same school district as the experimental school and serves either urban and suburban populations, with similar socioeconomic levels, school attendance, staff educational levels, and regular education programs.

Descriptive data is used to detail actual school's investigation on students' individual interests and subsequent school offer of acceleration or enrichment activities to develop their gifts.

Teachers and Parents of the control school (Carta School) were asked to complete surveys about Enrichment Activities

Teachers' survey on enrichment opportunities for students

Teacher's Name: _____Class: _____

School _____ City: _____

This survey aims to know the opinions of teachers on the teaching strategies adopted in the school, which will help us to understand if during normal school hours enrichment activities are offered that allow students to develop talents and individual interests.
Below are 11 statements. Please, respond by indicating the number that best represents your answer, using this scale

1 *Always* 2 Often 3 Sometimes 4 *Rarely* 5 *Never*

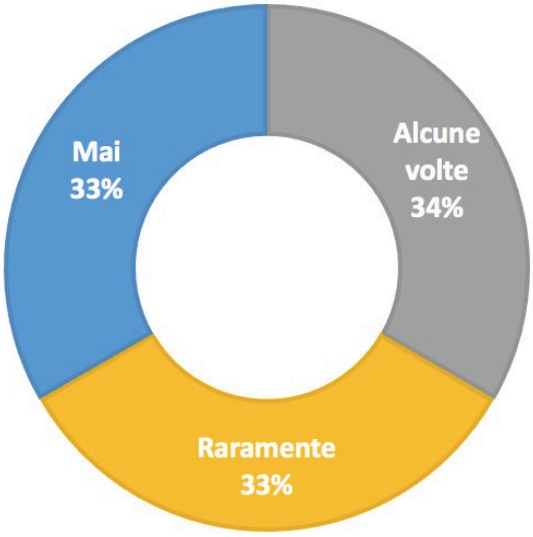
	1	2	3	4	5
At the beginning of each school year, each student is asked to complete a questionnaire to express his/her interests and aspiration					
At the beginning of each school year, parents are asked to complete a questionnaire to communicate the new interests and aspirations of their child					
During school hours, each student has the opportunity to do activities of personal interest that do not necessarily relate to school subject					

Figure 71. Teachers' Survey and Scores on Survey about Enrichment Activities

Teachers admit that students' interests are not surveyed at the beginning of each school year, nor parents are asked to disclosure potential interests and talents their children manifest out of school. Moreover, students have little opportunities to pursue their interests during the regular schooltime.

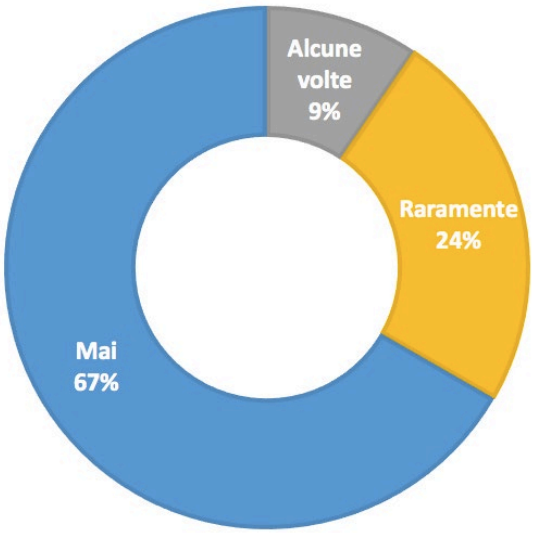
Question n. 1

At the beginning of each school year, each student is asked to complete a questionnaire to express his/her interests.



Question n. 2

At the beginning of each school year, parents are asked to complete a questionnaire to communicate the new interests and aspirations of their child.



Question n. 3

During regular school hours, each student has the opportunity to do activities of personal interest that do not necessary relate to school subjects.

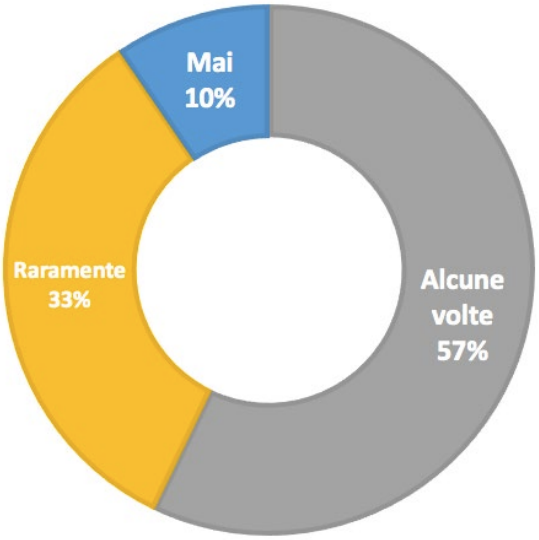


Figure 72. Teachers' Survey and Scores on Survey about Enrichment Activities

Parents' survey on enrichment opportunities for students

Parents' Name: _____Child's Grade: _____

I am the child's □Mother □Father □Guardian

This survey aims to learn about parents' opinions on the teaching strategies adopted in their children's school, to help us understand if during normal school hours enrichment activities are offered that allow your child to develop their talents and their own inclinations.

Below are 10 statements. Please, respond by indicating the number that best represents your answer, using this scale:

1 Always 2 Often 3 Sometimes 4 Seldom 5 Never

	1	2	3	4	5
1 At the beginning of each school year, my child is asked to complete a questionnaire to express his/her interests and aspiration					
2 At the beginning of each school year, as a parent I am asked to complete a questionnaire to communicate the new interests and aspirations of my child					
3 During school hours, my child has the opportunity to do activities of personal interest that do not necessarily relate to school subject					

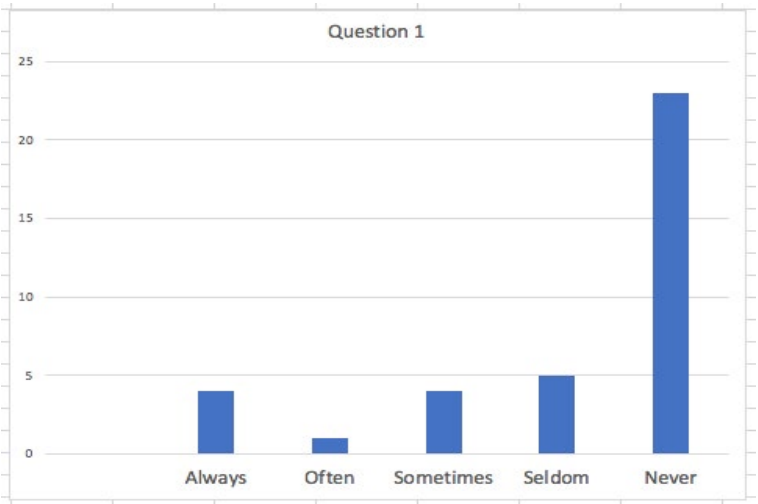
Figure 73. Parents' Survey and Scores on Survey about Enrichment Activities

Parents responses confirm, and even aggravate the belief that their children interests are not surveyed at the beginning of each school year, and they admit that parents are not asked to disclosure potential interests and talents their children manifest at home. Nonetheless, parents' belief that their children have the opportunity to pursue their interests during the regular schooltime seems to be a little more optimistic than what teachers stated.

One may assume parents tend not to hand in questionnaires to the teachers and principal of the school their children are still attending in which any negative aspect of the school is openly declared.

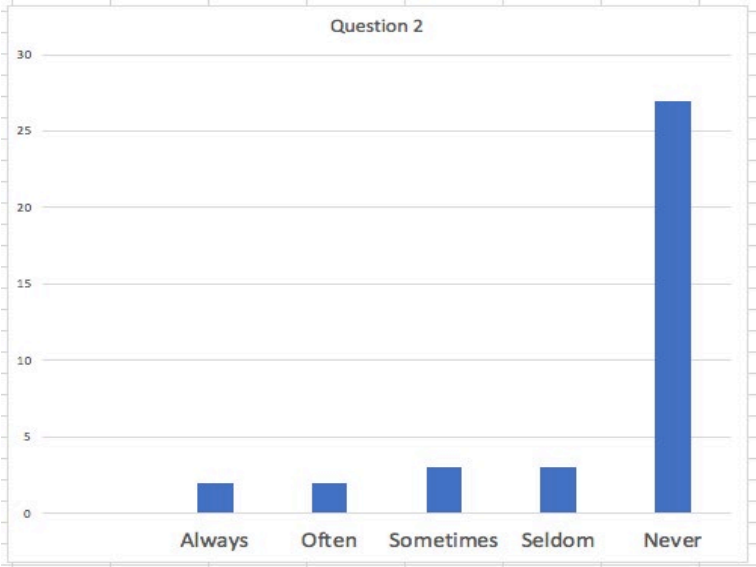
Question 1

At the beginning of each school year, my child is asked to complete a questionnaire to express his/her interests and aspiration



Question 2

At the beginning of each school year, as a parent I am asked to complete a questionnaire to communicate the new interests and aspirations of my child



Question 3

During school hours, my child has the opportunity to do activities of personal interest that do not necessarily relate to school subject

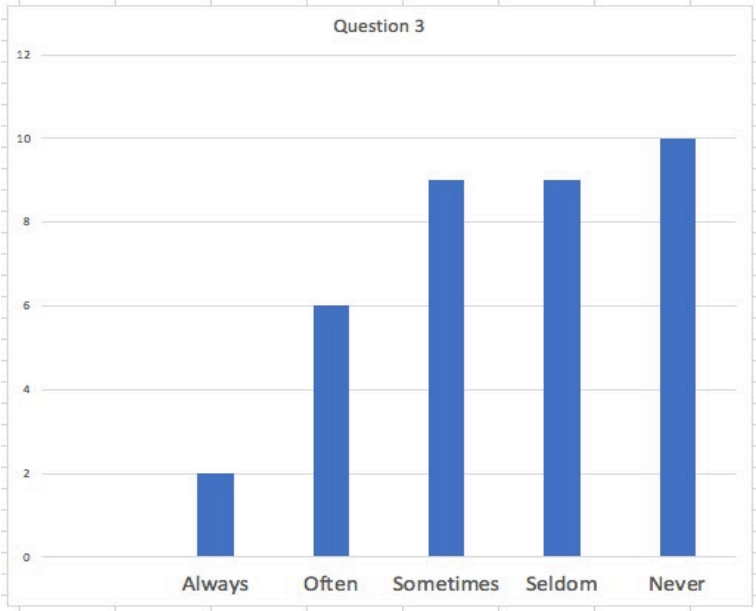


Figure 74. Parents' Survey and Scores on Survey about Enrichment Activities

6.11 Research Design and Instrumentation

Analysis of the quality of student products was carried out through simple mean calculations from comparisons of tallies of the number of creative products or services completed.

The SEM promotes creative productivity on the parts of students.

The major goal of each enrichment cluster is the production of a creative and original product or service to be presented to an authentic audience.

All the original products produced in the clusters contributed to the creation, planning and mise-en-scene of a Musical, which was made possible also thanks to a generous donation the students participating in the entrepreneurial cluster were able to collect.

6.12 Results on Student Creative Productivity

Creativity is one of the most important goals in education, career planning, and the traits sought by employers in all walks of life. The measurement of creative ability is, however, expensive and time consuming as most widely used assessment instruments are paper based and scored manually.

The major aspect of this research concentrated on an examination of students' creative products that emerged as a result of enrichment clusters (i.e., small group studies for the creation of an original product or service to be presented to an authentic audience) and Type III activities at the treatment schools.

The instrument used for evaluating students' levels of creativity is the Cebeci Test of Creativity (CTC): a digital creativity assessment of four domains: fluency, flexibility, originality, and elaboration.

The research has examined this issue from a comparative perspective involving non-treatment students and students involved in the schoolwide enrichment activities.
Calculation of a simple mean from the tallies yielded the mean number of original products that emerged from number of tallies produced in the control schools. Because of the lack of training in schoolwide enrichment processes the control group students were not expected to produce creative products, and comparison to the control site was effortless.
This SEM implementation process resulted in a total of 11 enrichment clusters initiated that actually came to fruition as completed products and three individual Type III Enrichment activities that came to fruition as completed products.
Table 1 displays the number of enrichment clusters offered and the creative products or services completed.

Treatment Site	N. of Clusters offered	N. of Products completed on Clusters	N. of Type III Activities	N. of Products completed on Type III Activities	Percent
1 Trissino	5	5	-	-	100
2 Maffei	6	6	3	3	100
Number =	11	11	3	3	100

Figure 75. Number of enrichment clusters offered and creative products or services completed

Because of the lack of knowledge of enrichment programs and because of a general reluctance to welcome foreign models, apart from teachers involved in the research, none of the remaining teachers in treatment schools volunteered in taking part in the experimental study. The presence of a new professional figure, namely the enrichment specialist, was not perceived as a resource person, and teachers did not perceive the need of gaining any training in this field, even if it was offered for free.
The two treatment schools were tallied by only a total of 5 teachers who received in-service training from the enrichment specialist.

6.13 Creativity Scores from the Cebeci Creativity Test

Increasingly, across the globe, educators and citizens recognize the need for creative solutions to important problems that exist in our society. Indeed, generating creative ideas and finding creative solutions are part of the 21st century career requirements. Teachers may not know how to recognize students with potential for creativity.
The Cebeci Test of Creativity (CTC) has been translated into Italian by the Enrichment Specialist in order to identify the creative potential of all students participating in the pilot project: The online test required 30 minutes to complete.
The CTC measures the four major dimensions of creativity:

Fluency
Originality
Elaboration
Flexibility

The test yields scores for each of the major dimensions of creativity. The CTC also measures creativity strengths in addition to the four major dimensions, described above:

Thinking Outside the Box
Use of Negative Space
Use of Action
Abstractness

- Combinations
- Off center start
- Symmetry breaking

Two classes at Giuriolo control school Y7 C and Y7 D, namely 37 students, took the CTC

Grade 7 C	Gender	Fluency	Originality	Elaboration	Flexibility
Grade 7	Female	2	1	32	1
Grade 7	Male	2	0	32	1
Grade 7	Male	4	2	30	1
Grade 7	Male	2	2	42	1
Grade 7	Male	2	2	46	2
Grade 7	Female	6	7	53	4
Grade 7	Male	2	2	42	1
Grade 7	Female	4	2	42	1
Grade 7	Female	4	1	38	2
Grade 7	Female	1	2	26	1
Grade 7	Male	2	2	22	1
Grade 7	Female	6	1	65	3
Grade 7	Male	4	3	67	3
Grade 7	Male	4	1	54	2
Grade 7	Female	3	0	29	1
Grade 7	Male	4	5	35	2
Grade 7	Female	1	0	42	1
Grade 7	Male	3	0	49	2
Grade 7	Female	2	0	24	1
Grade 7	Female	4	5	56	2
Grade 7	Male	5	3	67	3

Grade 7 D	Gender	Fluency	Originality	Elaboration	Flexibility
Grade 7	Female	8	1	43	3
Grade 7	Female	6	2	81	2
Grade 7	Male	5	2	46	2
Grade 7	Male	6	3	40	2
Grade 7	Male	3	4	60	3
Grade 7	Male	8	3	39	2
Grade 7	Female	6	7	50	5
Grade 7	Female	4	4	46	2
Grade 7	Female	4	2	35	2
Grade 7	Female	3	0	25	1
Grade 7	Female	5	3	42	4
Grade 7	Female	7	3	50	4
Grade 7	Male	6	3	47	3
Grade 7	Female	3	1	29	2
Grade 7	Female	3	2	20	2
Grade 7	Female	3	2	33	2
Grade 7	Male	4	2	25	2
Grade 7	Male	3	5	69	3
Grade 7	Female	5	2	49	3
Grade 7	Female	5	1	41	3
Grade 7	Male	5	1	58	2
Grade 7	Female	5	1	42	2
Grade 7	Male	11	4	78	3

Figure 76. Creativity Scores Control Group

Comparison between Gender

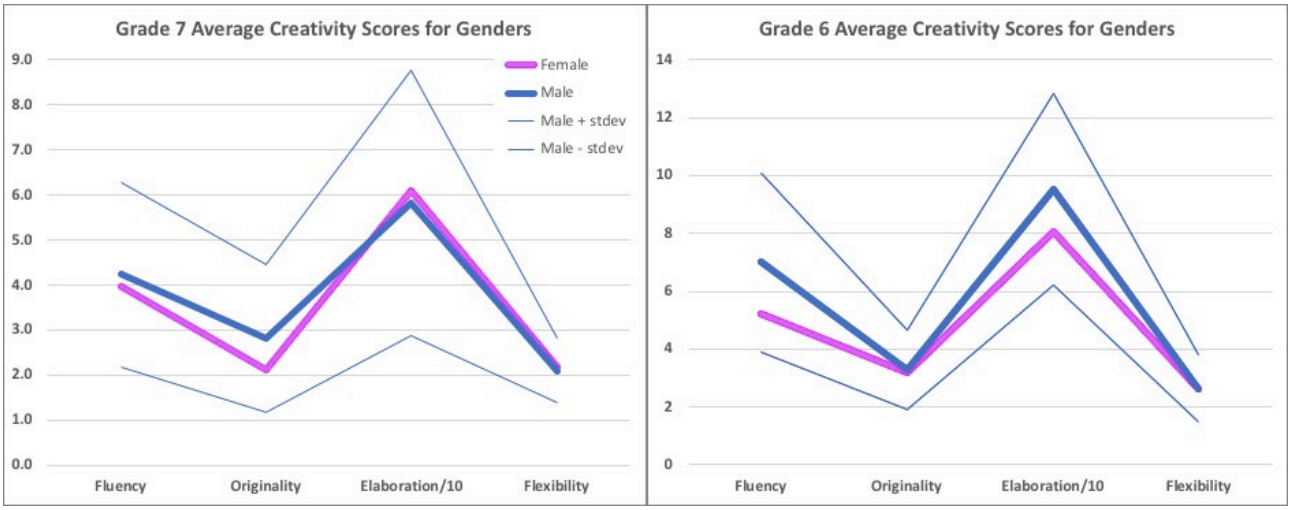


Figure 77. Gender Graph

This graph is drawn for all the CTC scores during the first year of SEM implementation.
The gender graphs show the differences in creativity between genders.
For both grades 6 and 7 there are slight differences between genders but as can be seen from the graph, the differences between gender scores are quite smaller than 1 standard deviation of the male scores. We can say that in this study there is no meaningful difference in creativity between genders.

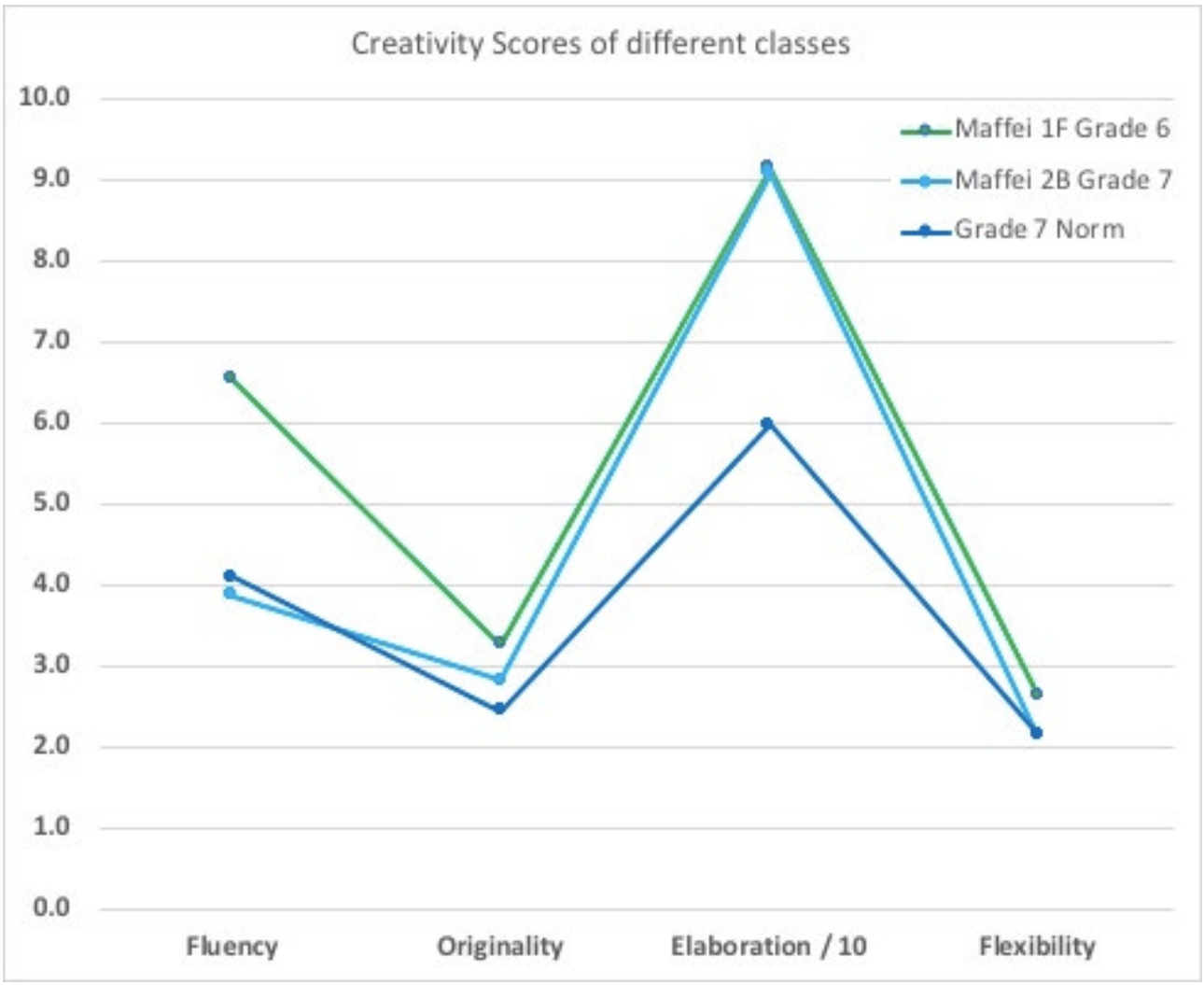


Figure 78. Creativity Levels of Treatment and Control Groups

This graph is drawn from CTC scores during the first year of SEM implementation.
This graph shows the creativity scores average of all students in a classroom and also comparison to preliminary Grade 7 norms gathered from two schools.
It can be observed from the graph that average of each creativity dimension of Maffei 1F Grade 6 students are higher than Grade 7 norms.
Average Maffei 2B Grade 7 students creativity scores are almost similar to Grade 7 norms in Fluency and Flexibility. Their average Originality score is slightly higher than Grade 7 norms and their average Elaboration score is a lot higher than the Grade 7 norms in fact it is even very close to Maffei 1F average score.
Although there is not enough data it might be argued that creativity scores gets lower as Grade level goes up.

PRE-POST TEST RESULTS IN TREATMENT GROUP Y6 – Y7 F

Y6 F – Y7 F class at Maffei treatment school namely 18 students, took the CTC at the end of the schoolyear 2017/18 and at the end of the schoolyear 2018/19.

	PRE							
Grade	Fluency	Originality	Elaboration	Flexibility	Fluency %	Originality %	Elaboration %	Flexibility %
Grade 6	3	1	24	1	10,6	32,7	3,6	12,5
Grade 6	5	3	130	2	34,7	59,7	83,2	37,6
Grade 6	5	4	78	3	34,7	73,9	40,6	69
Grade 6	7	5	80	2	59,7	84,2	43,2	37,6
Grade 6	5	7	74	3	34,7	93,4	37,6	69
Grade 6	8	4	89	3	68	73,9	53,8	69
Grade 6	5	0	107	1	34,7	17,8	67,3	12,5
Grade 6	6	2	89	3	47,5	47,5	53,8	69
Grade 6	8	1	109	3	68	32,7	69,3	69
Grade 6	3	4	100	2	10,6	73,9	63	37,6
Grade 6	14	2	92	3	92,1	47,5	56,4	69
Grade 6	7	5	81	5	59,7	84,2	44,9	97
Grade 6	11	5	124	4	84,8	84,2	80,2	87,5
Grade 5	5	3	56	3	28,4	58,5	18,3	55,6
Grade 6	7	4	129	3	59,7	73,9	82,5	69
Grade 6	4	3	55	1	20,8	59,7	20,5	12,5
Grade 6	6	3	61	2	47,5	59,7	26,1	37,6
Grade 6	5	2	127	2	34,7	47,5	81,5	37,6

	POST							
Grade	Fluency	Originality	Elaboration	Flexibility	Fluency %	Originality %	Elaboration %	Flexibility %
Grade 7	4	2	53	3	32,7	44,9	28,6	78,6
Grade 7	14	6	149	4	95,4	84,2	94,9	90,3
Grade 7	10	0	107	4	87,2	11,7	71,9	90,3
Grade 7	9	1	106	3	85,7	27,6	71,9	78,6
Grade 7	9	6	115	5	85,7	84,2	78,1	99
Grade 7	7	0	96	4	73	11,7	63,8	90,3
Grade 7	10	0	117	2	87,2	11,7	80,1	52
Grade 7	5	4	104	4	46,4	72,4	70,4	90,3
Grade 7	5	0	122	1	46,4	11,7	83,2	17,3
Grade 7	6	1	56	3	63,8	27,6	32,7	78,6
Grade 7	21	1	123	2	99,5	27,6	83,7	52
Grade 7	12	0	86	3	91,8	11,7	60,7	78,6
Grade 7	8	1	113	3	82,7	27,6	75,5	78,6
Grade 7	11	0	58	4	84,8	17,8	23,4	87,5
Grade 7	8	3	103	3	82,7	63,3	69,4	78,6
Grade 7	8	2	55	3	82,7	44,9	30,6	78,6
Grade 7	8	1	75	3	82,7	27,6	52,6	78,6
Grade 7	3	3	81	3	20,9	63,3	57,1	78,6

Figure 79. Pre-Post Test Results Y6-Y7 Maffei

Y6 F Maffei

Grade	Fluency	Originality	Elaboration	Flexibility
Grade 6	3	1	24	1
Grade 6	5	3	130	2
Grade 6	5	4	78	3
Grade 6	7	5	80	2
Grade 6	5	7	74	3
Grade 6	8	4	89	3
Grade 6	5	0	107	1
Grade 6	6	2	89	3
Grade 6	8	1	109	3
Grade 6	3	4	100	2
Grade 6	14	2	92	3
Grade 6	7	5	81	5
Grade 6	11	5	124	4
Grade 5	5	3	56	3
Grade 6	7	4	129	3
Grade 6	4	3	55	1
Grade 6	6	3	61	2
Grade 6	5	2	127	2
AVERAGE	6,3	3,2	89,1	2,5

Y7 F Maffei

Grade	Fluency	Originality	Elaboration	Flexibility
Grade 6	3	1	24	1
Grade 6	5	3	130	2
Grade 6	5	4	78	3
Grade 6	7	5	80	2
Grade 6	5	7	74	3
Grade 6	8	4	89	3
Grade 6	5	0	107	1
Grade 6	6	2	89	3
Grade 6	8	1	109	3
Grade 6	3	4	100	2
Grade 6	14	2	92	3
Grade 6	7	5	81	5
Grade 6	11	5	124	4
Grade 5	5	3	56	3
Grade 6	7	4	129	3
Grade 6	4	3	55	1
Grade 6	6	3	61	2
Grade 6	5	2	127	2
AVERAGE	6,3	3,2	89,1	2,5

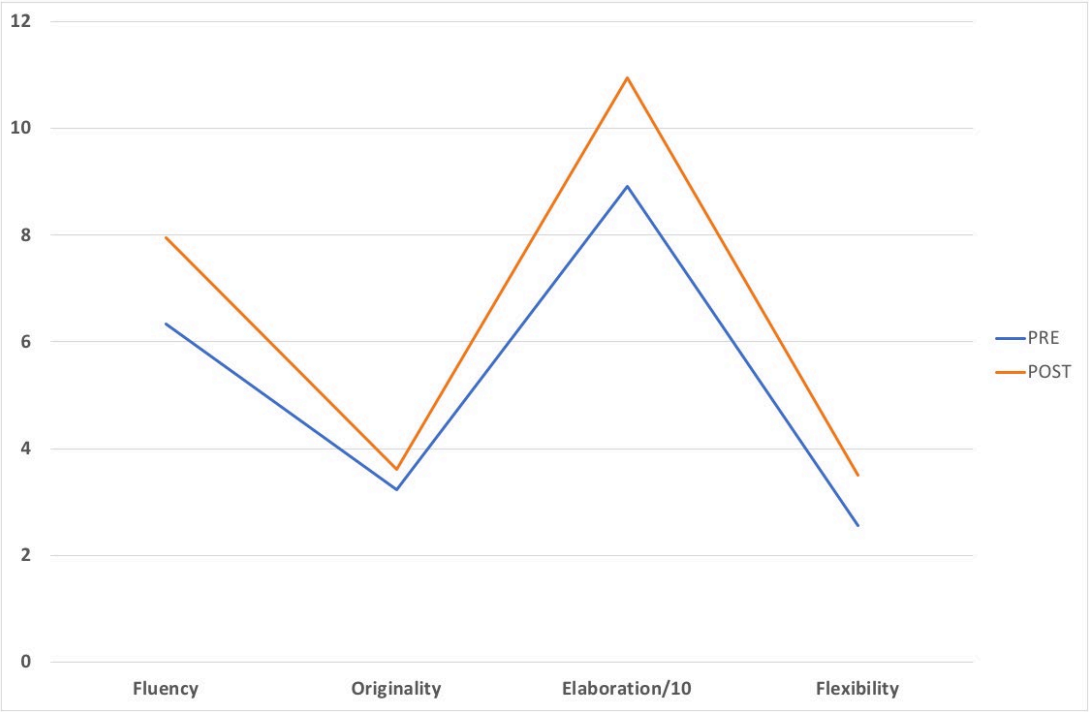


Figure 80. Graph Pre-Post Test Results Y6-Y7 Maffei

When we look at mean creativity values of the Y6 F – Y7 F class at Maffei treatment school, we see a slight increase in all four dimensions. Fluency and Elaboration raw scores increased relatively more than Originality and Flexibility scores.

PRE-POST TEST RESULTS IN TREATMENT GROUP Y7 – Y8 B

Y7 B – Y8 B class at Maffei treatment school namely 22 students, took the CTC at the end of the schoolyear 2017/18 and at the end of the schoolyear 2018/19.

Gender	Grade	Fluency	Originality	Elaboration	Flexibility	Fluency %	Originality %	Elaboration %	Flexibility %
Female	Grade 7	3	1	130	2	20,9	27,6	87,2	52
Female	Grade 7	1	1	12	1	2,6	27,6	0,5	17,3
Male	Grade 7	5	3	136	1	46,4	63,3	90,3	17,3
Female	Grade 7	2	0	63	2	11,2	11,7	39,8	52
Male	Grade 7	7	5	136	3	73	79,1	90,3	78,6
Male	Grade 7	4	7	63	2	32,7	90,3	39,8	52
Male	Grade 7	3	4	52	2	20,9	72,4	26,5	52
Female	Grade 7	3	3	132	3	20,9	63,3	88,8	78,6
Female	Grade 7	5	3	115	2	46,4	63,3	78,1	52
Male	Grade 7	6	2	48	3	63,8	44,9	21,4	78,6
Female	Grade 7	5	1	112	3	46,4	27,6	75,5	78,6
Male	Grade 7	2	0	33	2	11,2	11,7	10,2	52
Female	Grade 7	5	1	83	2	46,4	27,6	58,7	52
Female	Grade 7	5	6	132	4	46,4	84,2	88,8	90,3
Male	Grade 7	2	4	127	2	11,2	72,4	86,2	52
Male	Grade 7	5	3	81	2	46,4	63,3	57,1	52
Male	Grade 7	4	3	66	3	32,7	63,3	42,3	78,6
Female	Grade 7	5	3	198	2	46,4	63,3	99,5	52
Female	Grade 7	2	4	66	1	11,2	72,4	42,3	17,3
Female	Grade 7	3	3	98	2	20,9	63,3	64,8	52
Female	Grade 7	4	0	58	1	32,7	11,7	35,2	17,3
Male	Grade 7	4	5	56	2	32,7	79,1	32,7	52

Gender	Grade	Fluency	Originality	Elaboration	Flexibility	Fluency %	Originality %	laboration %	Flexibility %
Female	Grade 8	7	4	120	6	52,7	70,9	69,1	98,2
Female	Grade 8	8	3	108	4	66,1	60	60,6	85,5
Male	Grade 8	7	9	111	5	52,7	95,8	62,4	95,2
Female	Grade 8	4	4	66	3	21,2	70,9	24,8	61,8
Male	Grade 8	13	7	195	4	87,9	91,5	96,4	85,5
Male	Grade 8	5	9	123	3	29,1	95,8	70,3	61,8
Male	Grade 8	8	4	107	4	66,1	70,9	59,4	85,5
Female	Grade 8	5	6	146	5	29,1	88,5	84,8	95,2
Female	Grade 8	7	5	106	3	52,7	81,2	58,8	61,8
Male	Grade 8	4	0	47	1	21,2	15,2	9,1	7,9
Female	Grade 8	11	0	90	4	80,6	15,2	41,8	85,5
Male	Grade 8	5	0	86	3	29,1	15,2	37,6	61,8
Female	Grade 8	15	2	160	6	92,1	47,9	88,5	98,2
Female	Grade 8	8	9	169	6	66,1	95,8	89,7	98,2
Male	Grade 8	3	6	128	1	10,3	88,5	71,5	7,9
Male	Grade 8	5	3	92	4	29,1	60	43,6	85,5
Male	Grade 8	6	4	104	2	40,6	70,9	57	30,3
Female	Grade 8	19	5	186	7	98,2	81,2	93,3	99,4
Female	Grade 8	11	9	128	4	80,6	95,8	71,5	85,5
Female	Grade 8	9	3	112	2	71,5	60	63,6	30,3
Female	Grade 8	12	0	181	3	84,8	15,2	92,1	61,8
Male	Grade 8	5	5	86	4	29,1	81,2	37,6	85,5

Figure 81. Pre-Post Test Results Y7-Y8 Maffei School

Treatment Group Y7 B Maffei

Grade	Fluency	Originality	Elaboration	Flexibility
Grade 7	3	1	130	2
Grade 7	1	1	12	1
Grade 7	5	3	136	1
Grade 7	2	0	63	2
Grade 7	7	5	136	3
Grade 7	4	7	63	2
Grade 7	3	4	52	2
Grade 7	3	3	132	3
Grade 7	5	3	115	2
Grade 7	6	2	48	3
Grade 7	5	1	112	3
Grade 7	2	0	33	2
Grade 7	5	1	83	2
Grade 7	5	6	132	4
Grade 7	2	4	127	2
Grade 7	5	3	81	2
Grade 7	4	3	66	3
Grade 7	5	3	198	2
Grade 7	2	4	66	1
Grade 7	3	3	98	2
Grade 7	4	0	58	1
Grade 7	4	5	56	2
AVERAGE	3,8	2,8	90,7	2,1

Treatment Group Y8 B Maffei

Grade	Fluency	Originality	Elaboration	Flexibility
Grade 8	7	4	120	6
Grade 8	8	3	108	4
Grade 8	7	9	111	5
Grade 8	4	4	66	3
Grade 8	13	7	195	4
Grade 8	5	9	123	3
Grade 8	8	4	107	4
Grade 8	5	6	146	5
Grade 8	7	5	106	3
Grade 8	4	0	47	1
Grade 8	11	0	90	4
Grade 8	5	0	86	3
Grade 8	15	2	160	6
Grade 8	8	9	169	6
Grade 8	3	6	128	1
Grade 8	5	3	92	4
Grade 8	6	4	104	2
Grade 8	19	5	186	7
Grade 8	11	9	128	4
Grade 8	9	3	112	2
Grade 8	12	0	181	3
Grade 8	5	5	86	4
AVERAGE	8	4,4	120,5	3,8

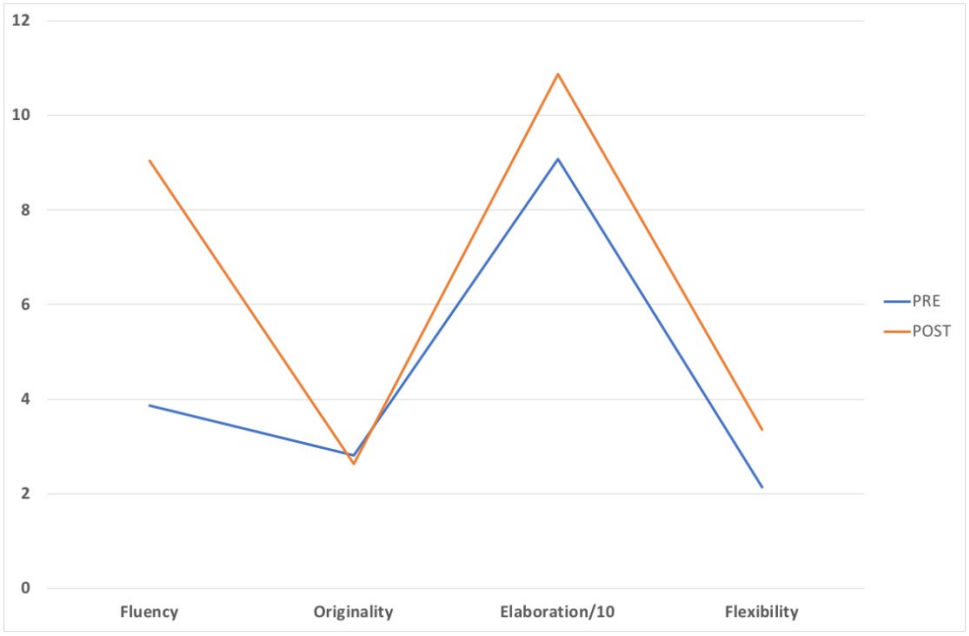


Figure 82. Graph Pre-Post Test Results Y7-Y8 Maffei School

When we look at mean creativity values of the Y7 B – Y8 B class at Maffei treatment school, we see a slight increase in Fluency, Elaboration and Flexibility dimensions. Fluency raw scores increased relatively more than the other scores. There is almost no change in Originality raw scores.

Carta control school Y7 G and Y8 G

Two classes at Carta control school (Y7 G and Y8 G), namely 37 students, took the CTC at the end of the schoolyear 2018/19 to investigate average creativity levels in Y8 students.

Control Group Y7 G Carta

Gender	Grade 7G	Fluency	Originality	Elaboration	Flexibility
Female	Grade 7	5	4	40	2
Female	Grade 7	3	1	39	2
Male	Grade 7	12	7	93	5
Female	Grade 7	3	0	17	2
Male	Grade 7	17	5	140	4
Female	Grade 7	6	0	44	4
Male	Grade 7	2	0	19	2
Female	Grade 7	7	3	77	3
Male	Grade 7	2	0	55	2
Female	Grade 7	6	1	94	3
Female	Grade 7	8	0	36	3
Female	Grade 7	5	3	38	2
Male	Grade 7	6	0	27	3
Male	Grade 7	7	3	55	3
Male	Grade 7	16	5	108	5
Male	Grade 7	7	1	47	1
Male	Grade 7	3	2	43	3
Female	Grade 7	7	0	48	2
	AVERAGE	6,7	1,9	56,6	2,8

Control Group Y8 G Carta

Gender	Grade 8 G	Fluency	Originality	Elaboration	Flexibility
Male	Grade 8	10	2	54	1
Male	Grade 8	3	0	33	1
Female	Grade 8	8	6	48	5
Female	Grade 8	4	3	69	3
Female	Grade 8	3	0	18	1
Female	Grade 8	8	4	48	3
Female	Grade 8	6	1	67	2
Female	Grade 8	12	0	66	4
Female	Grade 8	13	0	70	2
Female	Grade 8	8	2	57	3
Female	Grade 8	4	1	33	2
Female	Grade 8	5	0	58	4
Female	Grade 8	14	2	91	3
Male	Grade 8	5	3	49	3
Male	Grade 8	8	4	58	3
Female	Grade 8	6	1	45	3
Male	Grade 8	4	0	42	1
Female	Grade 8	4	0	54	2
	AVERAGE	6,9	1,6	53,3	2,5

Figure 83. Creativity Scores Control Group Carta School

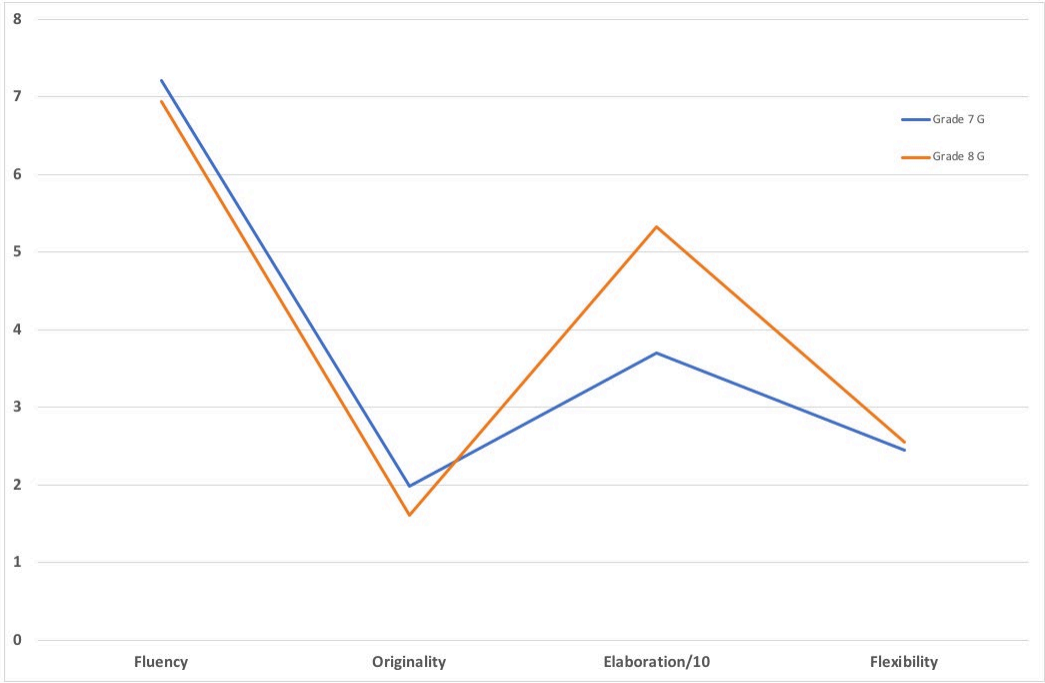


Figure 84. Comparison of Average Creativity Dimensions of Carta Grade 7 and Grade 8

6.14 Effects of SEM Implementation on Creativity

To demonstrate the effects of SEM, we can compare the Pre and Post test raw scores for each dimension for both classes.
To calculate the change, we subtract the Pre raw score from the Post raw score for each dimension. This difference will give us a positive number if there is an increase in the creativity score.
Histograms of changes in each dimension are given below.

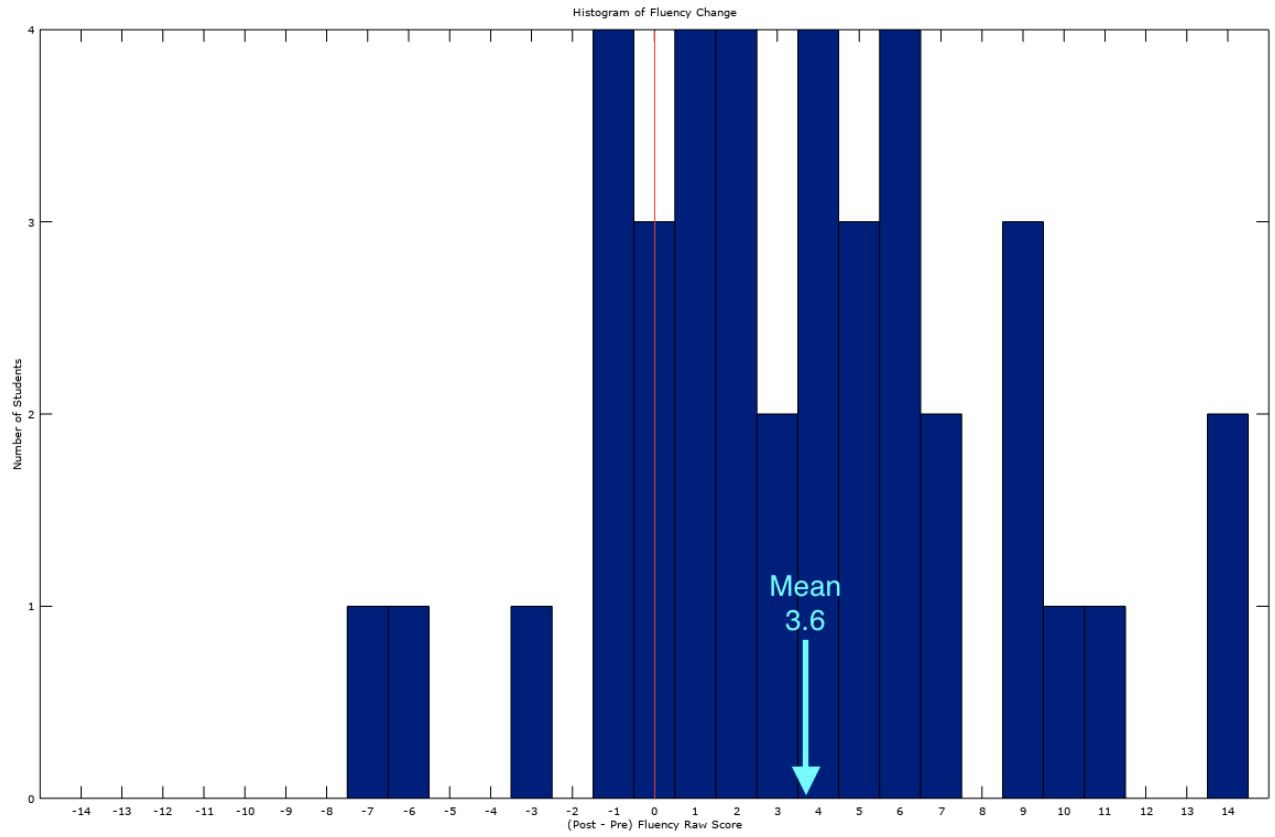


Figure 85. Histogram of change in Fluency

No change is shown by the red line at 0 in the above graph. The increase in the Fluency scores of most of the students is evident at the above graph. The mean increase is 3.6 in Fluency raw score.

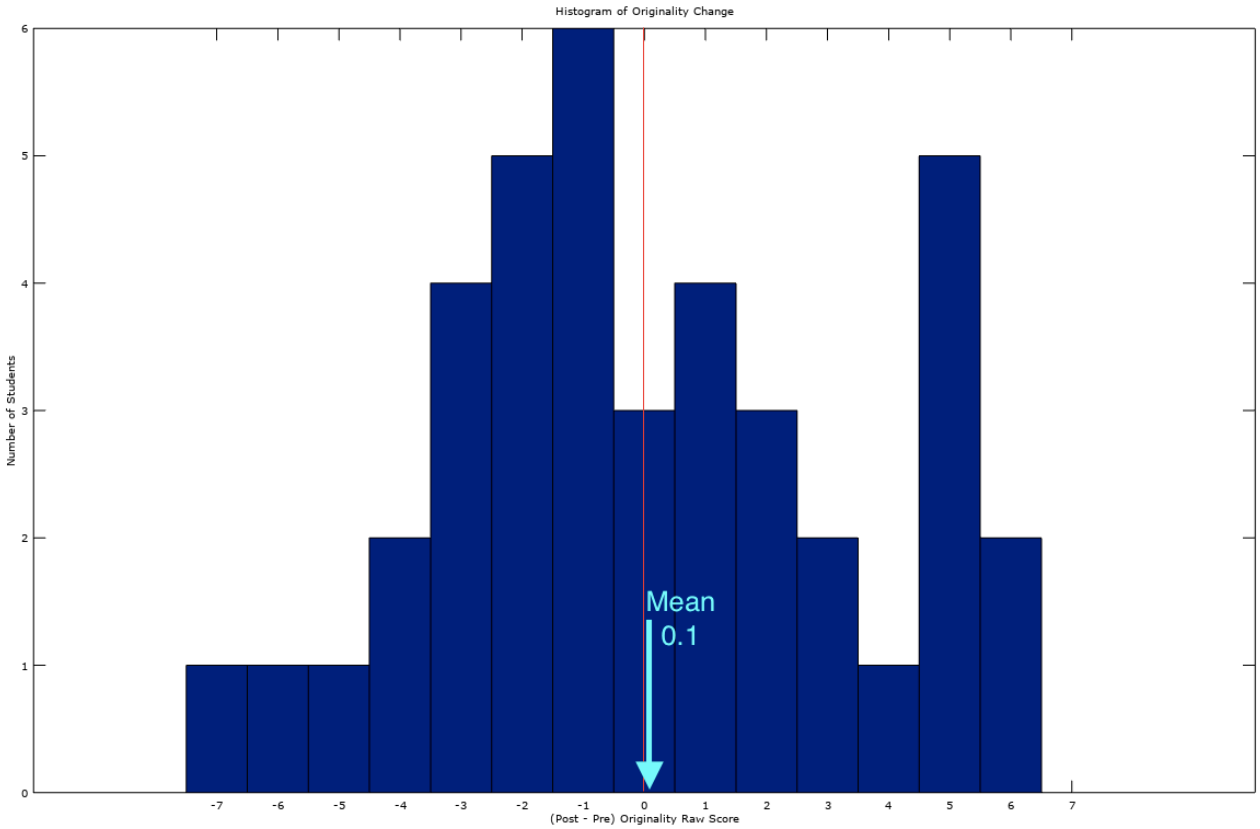


Figure 86. Histogram of change in Originality

No change is shown by the red line at 0 in the above graph. There is no meaningful increase in the Originality scores. The mean increase is 0.1 in Originality raw score which is not statistically significant.

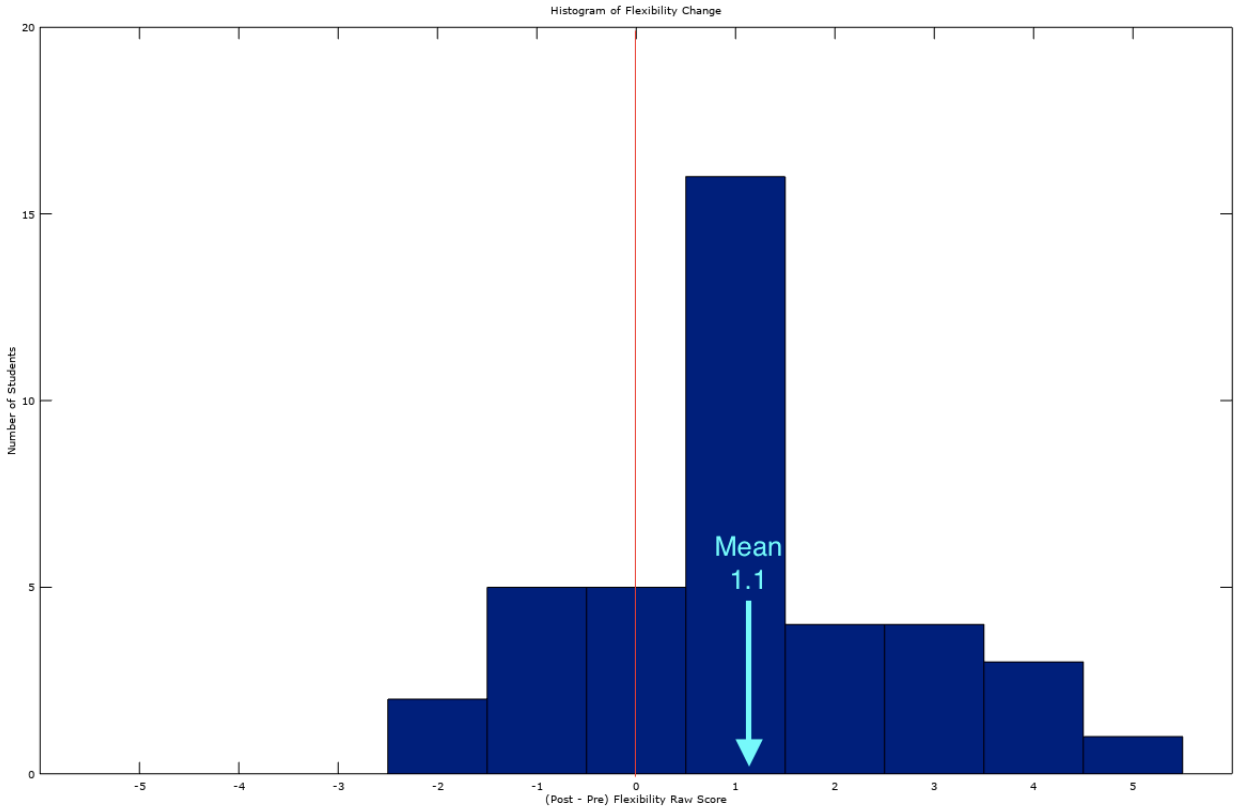


Figure 87. Histogram of change in Flexibility

No change is shown by the red line at 0 in the above graph. The increase in the Flexibilty scores of most of the students is evident at the above graph. The mean increase is 1.1 in Flexibility raw score.

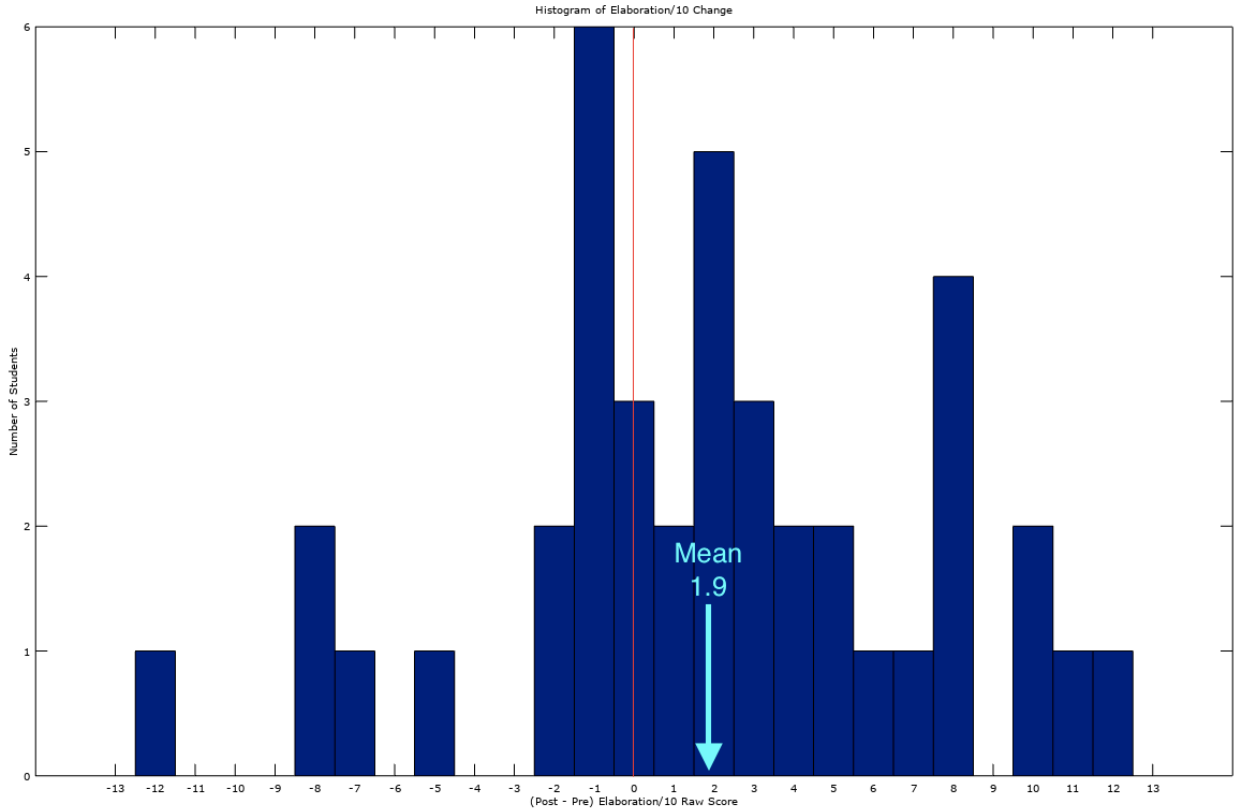


Figure 88. Histogram of change in Elaboration/10

Elaboration scores are divided by 10 for ease of use and similarity to other raw scores. No change is shown by the red line at 0 in the above graph. The increase in the Elaboration scores of most of the students is evident at the above graph. The mean increase is 1.9 in Elaboration/10 raw score.

Gender Differences in Change in Raw Scores

Let's have a look at the average change in raw score for each dimension for pre and post tests for all students.

	Fluency	Originality	Elaboration/10	Flexibility
Female	4.1	1.4	1.9	1.4
Male	3.2	-0.9	1.9	0.9

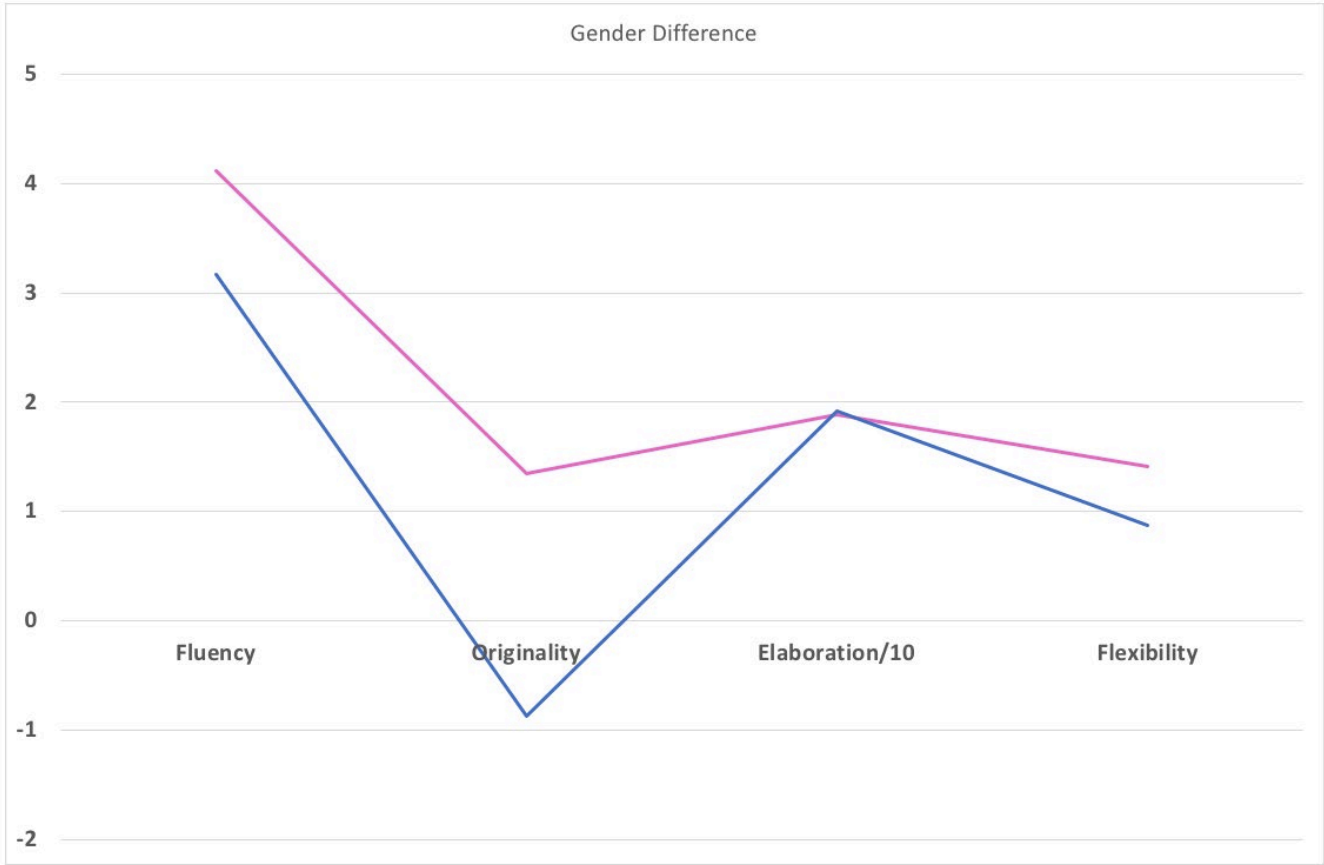


Figure 89. Change in raw scores for both genders

From the graph above we can see that female students have increased their Fluency, Originality and Flexibility scores more than male students. There is even decrease in Originality raw score in male students. There is no meaningful difference in Elaboration scores between genders.

6.15 Scores of Students' Achievement

The strategies to implement the SEM require full-school involvement and the development a five-years program to for transforming traditional schools into places for talent development. One of the aspects observed at the end of a two year implementation was the impact the SEM had on academic achievements.

Data analysis of students' end-of-the-year achievements at the end of the first year of implementation and at the end of the second year are reported in the table below:

1 F	2 F		2 B	3 B
7,09	6,82		7,45	7,67
8,73	8,45		7,91	7
9,09	8,64		6,27	9,17
7,73	7,64		7,45	8,83
6,82	6,09		9	7,17
6,73	6,27		7,73	6,55
9,82	9,73		6,45	6,42
8,55	8,64		8,82	7,25
7,82	7,45		7,82	9,5
8,18	8		8,09	7,92
8,36	7,55		6,82	9,67
6,82	6,82		6,64	7,5
8,45	7,82		9,36	8,08
6,91	6,55		7,73	8,42
6,36	6,09		8,09	7,92
7,91	7,27		7,64	8,33
8,36	7,73		8,09	8,42
6,91	6,64		6,27	9,08
7	6.64		6,45	7,83
			6,18	8,33
147,64	132,2		7,09	8,05
			8,09	7,33
			7,18	8,17
			172,62	184,61

Figure 89. Achievement scores

While Y6/Y7 showed a slight decrease in the class' achievements, Y7/Y8 shows a slight increase.

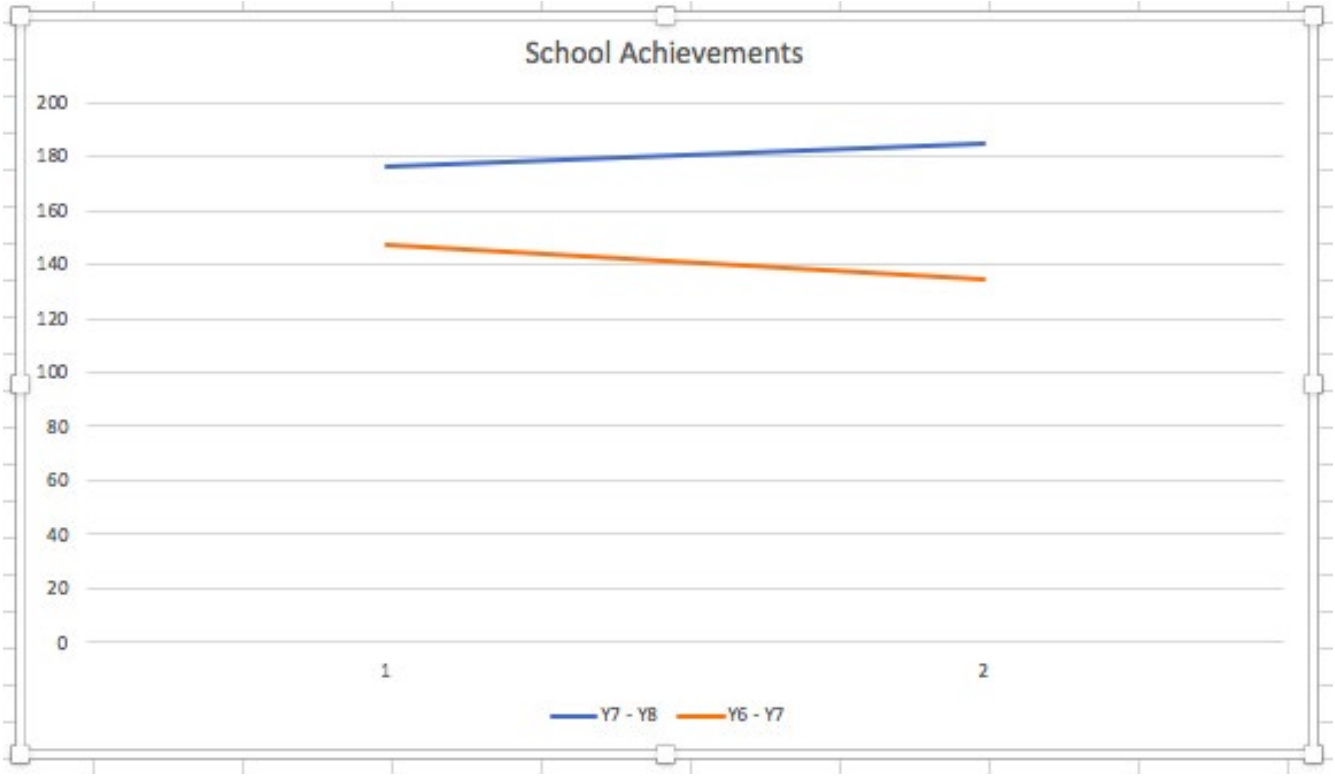


Figure 90. Graphic on Achievement Scores

6.16 Renzulli Learning System for Orientation purposes

The school is the primary source of knowledge and plays a fundamental role in the preparation and training of aware citizens.
For years, orientation initiatives have been activated to support the educational offer in a complementary and integrative way. The aim is to encourage students to know themselves and the environmental, social, professional and cultural context in which they live, becoming protagonists responsible for their own choice. The intent is to experiment with innovative guidance initiatives, deepening the issues related to the complexity and variety of professions present in the world of work, involving and raising awareness among families and teachers, in a logic of orientation throughout life, as indicated in the European, national and regional policies for achieving the objectives of "Europe 2020", the "National Guidelines for Lifelong Guidance" and the "Regional Lifelong Guidance System".
Particular attention is to be paid to transversal competences (the so-called soft skills) considered an essential set of personal qualities of an individual in terms of knowledge, skills, attitudes and abilities, personal and professional qualities, today more than ever the true added value that the individual can bring into the work context.
In recent years a great effort has been made in order to involve subjects of the economic, social and institutional world to cooperate for this goal.
Orientation constitutes an integral part of the study curricula and, more in
general, of the educational process encouraging the critical use of knowledge and preventing school failures and drop-out and
prevention of early school leaving

Orientation activities also foster dialogue between schools and the productive world, or give an opportunity through visits to companies, businesses and organizations, providing an understanding of the variety and richness of professions.
One of the main benefits of orientation is placing the individual at the center of the system, so that the student is able to orient himself in a critical manner in the complex reality in which he finds himself living and entering, be able to make his own choices consistent with his own characteristics, attitudes and own personal project continuously checked and repositioned in relation to social and labor contingencies.
With this respect, administrators at Maffei treatment school became more and more aware of the powerful resources the SEM offers to assist both students and families to trace life trajectories in young people and asked to extend the use of the RLS to all Y8 students in both treatment and control schools, as part of the orientation activities carried out by the school.
The Renzulli Learning System was then provided to all Y8 students in both treatment school Maffei and in Control School Carta in 2018 order to assist students and families in making thoughtful and more informed choices before enrolling in high schools.
In treatment and control schools 8 Y8 classes, namely 177 students, were given free access to the Profiler, which was administered by the Enrichment Specialist in December. In mid-January (17th), the Enrichment Specialist met individual parents at the end of the parents' first-term meeting and each printed copy of the profilers were given to them, together with the during the first-term school-report.

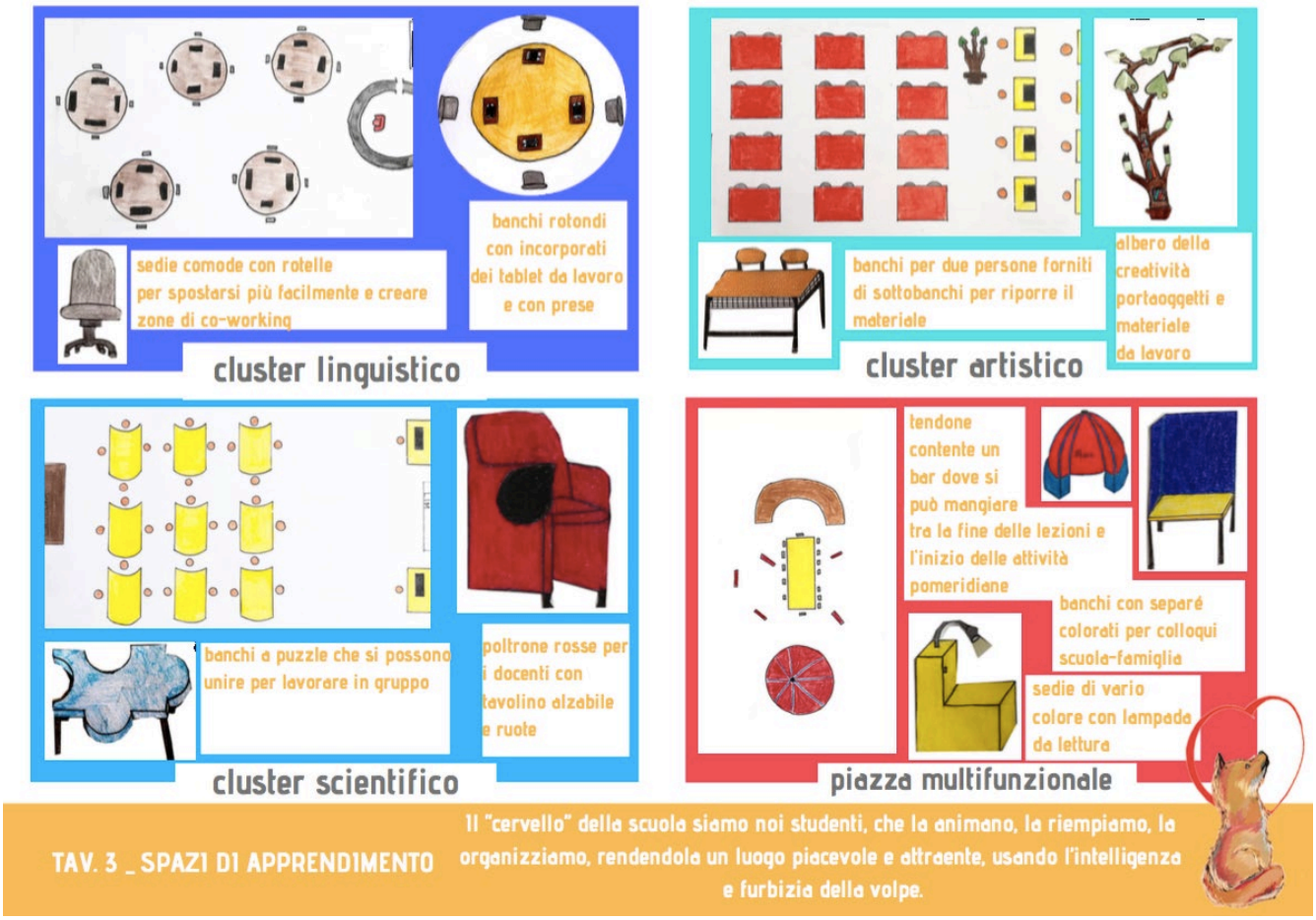
This orientation activity was not included in the goals of this research study but the administrators became aware of the powerful resources the SEM offers to assist both students and families to trace life trajectories in young people. Most parents were enthusiastic about the reports and somehow surprised the software was able to describe so accurately their daughters' and sons' interests. They were very grateful such an opportunity was extended to students who did not participate in the treatment group.

Also, Giuriolo control School benefitted from Renzulli Learning System resources as two classes were able to take both the Profiler and the Creativity Test in 2018 for orientation purposes.

6.17 Excellence Begets Excellence

The school is a priority investment for the country's competitiveness and development, considering education a strategic goal and a precious asset for society and the economy.
In particular school buildings, their adequacy, their correspondence to the new learning and teaching needs, their ability to be in osmosis with the sourranding environment, are the basis of a renewed and efficient educational system, a driving force for economic development and social areas.
With this conviction a national association promoted a competition among Middle Schools in Italy to stimulate students to design their ideal school through the use of new technologies for school building interventions.
The ultimate goal is to create a school model - a place of life and growth - that is generated directly from the needs and desires of those who mainly live it.
The construction of new school buildings or the renewal of existing ones must respond to the need to guarantee the best conditions for the social development, as they have a decisive impact on the formation of the new generation. More generally, the MacroScuola Call constitutes a valuable opportunity for collaboration and effective partnership between the school and society that allows students to learn about the working culture. In this respect, the MacroScuola project suits the SEM pedagogical approach that aims to transform lesson learners to fisthand enquirers and creative productive thinkers.

As discussed, Enrichment activities in both treatment schools were offered to a restricted number of students mainly because of a negative attitude toward gifted education on the parts of many educators who perceived Gifted and Talented programs as favoritism toward a very small segment of the total school population. One may assume that even students not involved in the project might display a natural distrust against the new activites as youngesters can be easily influenced by adults' attitudes. Moreover, students attending regular school could have naturally developed a sort of envy toward students who could spend part of their school time pursuing their own interests and cooperating in creative groups. But this did not occur and, on the contrary, the Y8 E class at Maffei school that took part to the national competition 'Macroscuola Call' to re-design Schools actually designed a project that included learning spaces they named 'clusters', specifically dedicated to enrichment activities.


sedie comode con rotelle per spostarsi più facilmente e creare zone di co-working
banchi rotondi con incorporati dei tablet da lavoro e con prese
cluster linguistico
banchi per due persone forniti di sottobanchi per riporre il materiale
albero della creatività portaoggetti e materiale da lavoro
cluster artistico
banchi a puzzle che si possono unire per lavorare in gruppo
poltrone rosse per i docenti con tavolino alzabile e ruote
cluster scientifico
tendone contente un bar dove si può mangiare tra la fine delle lezioni e l'inizio delle attività pomeridiane
banchi con separé colorati per colloqui scuola-famiglia
sedie di vario colore con lampada da lettura
piazza multifunzionale
TAV. 3 _ SPAZI DI APPRENDIMENTO
Il "cervello" della scuola siamo noi studenti, che la animano, la riempiamo, la organizziamo, rendendola un luogo piacevole e attraente, usando l'intelligenza e furbizia della volpe.

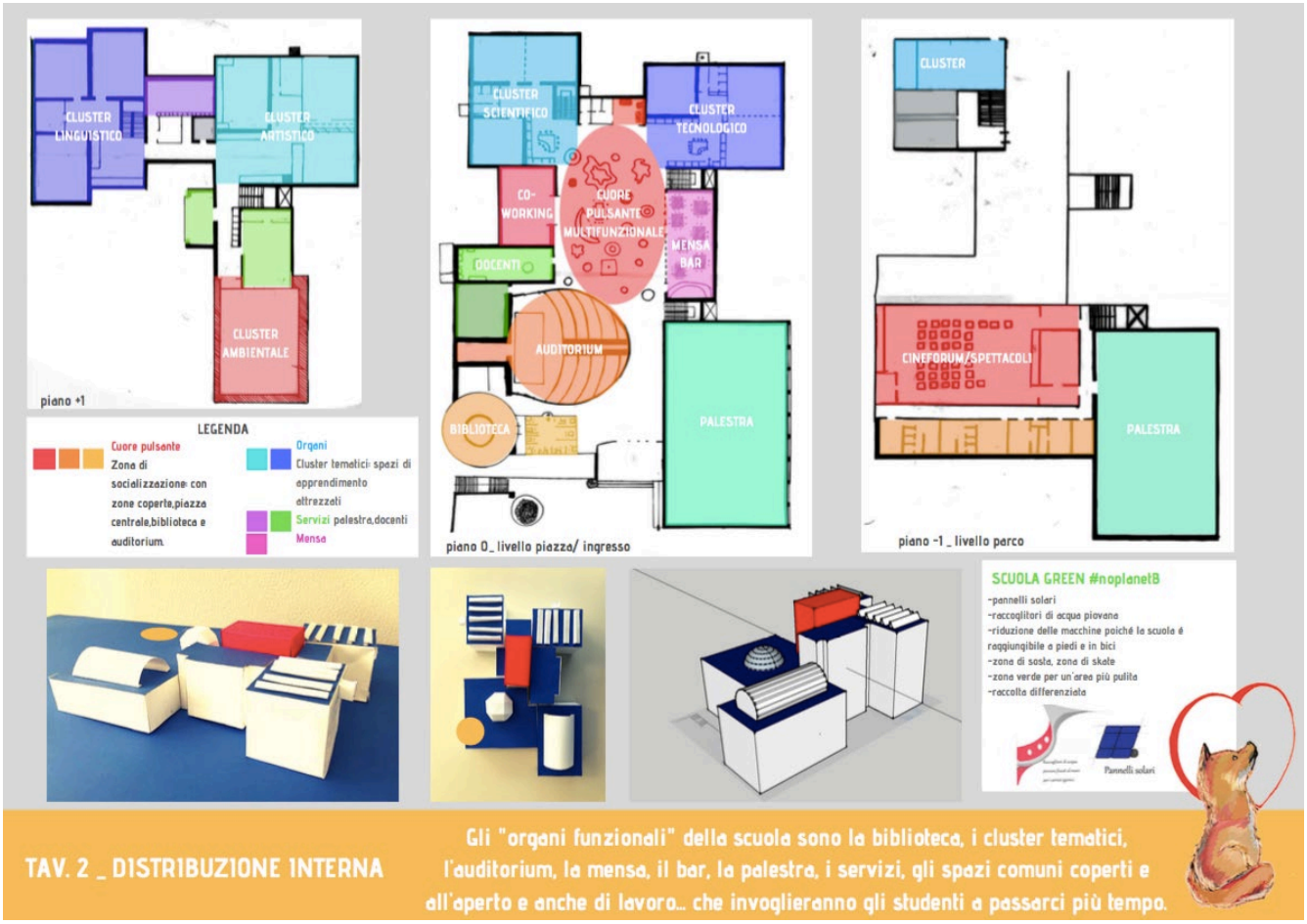


Figure 91. The planimetry of the future SEM School

Any linguistic may trace the first signs of contamination between cultures in the use of the language and even the most distracted and superficial observer would notice that the positive contamination of the SEM is clearly represented by the use of the term ‘cluster’ (which is an English word not commonly used among students) which does not simply represent a new organization of the school environment but also the adhesion to a new educational approach.
The positive effect SEM implementation produced to the whole school, (despite the limited participation of the teaching staff), resulted in an unexpected buy-in as students’ wishful thinking was translated in subsequent administrators’ decision to adopt the SEM model, to make necessary changes in the school setting and to design new spaces in order to continue the SEM experience inaugurated by the doctoral project.

In this respect, the SEM aligns with the ‘Guidelines on Exploring and Adapting Learning Spaces in Schools’ developed with input from Ministries of Education in the European Schoolnet Interactive Classroom Working Group (ICWG) which suggest to adapt learning spaces in order to enable the introduction of innovative pedagogies.

Resource rooms do not exist in the Italian traditional school setting and school modifications should be done to welcome enrichment activities in the school.

6.18 Results of Qualitative Analyses

The results of this study revealed that the students' attitudes toward learning were positively enhanced by participation in the schoolwide enrichment treatment. The descriptive data provided evidence that students have become increasingly positive about school and the variety of opportunities offered for learning. This was particularly evident in terms of students' beliefs that their interests were considered in determining the nature of activities in which they would become involved. The results also indicated that, after initial diffidence and laziness in participating in training sessions, these negative attitudes were ameliorated after the stress related to implementation of new programming subsided and as the SEM began providing positive outcomes for students. Research on school change (Berman & McLaughlin, 1979; Fullan, 1982; Hord et al., 1987; Loucks, 1982; Louis & Kell, 1981; Sarason, 1982) has indicated that teachers tend to be slow in altering attitudes toward large-scale aspects of education and SEM requires whole school buy-in.
In the end, teachers participating in the treatment project developed a much more positive impression of gifted education which resulted in their willingness to become the first Italian teachers of the first SEM class ever inaugurated in an Italian Public School.
Perhaps the awe that the local press granted to this first attempt to adopt a talent development approach in the Italian school, when no regulations and no funds may support this initiative, gave administrators the positive feeling of being at the forefront of educational change.

The results of the present investigation make several important points about students and teachers. First, students' attitudes toward school learning processes were positively enhanced by SEM implementation and they started to view school as a place that more accurately addressed their personal needs by providing them with opportunities to pursue their interests that they might not have ever had in school. The logical consequence is that heightened levels of student attitudes toward learning would ultimately enhance both the quantity and quality of pupils' learning.
Perhaps of even greater importance were some attitudinal alterations that were not statistically assessed but nonetheless became obvious through the qualitative portions of this research. These included:

1 A general feeling that pursuit of individual interests is both acceptable and encouraged in school;
2 a perception that completion of workbook pages and other traditional classroom assignments is not an end but rather a means for obtaining opportunities for greater exploration, training, and creative production within topics based on one's interests;
3 beliefs that school is intended for students to become more attuned to their own personal needs and interests while acquiring the skills necessary for successful adulthood.

In light of the many critics on education and a continuous parallel among the many different approaches adopted in Europe, this study appears to offer a possible solution which may contribute significantly to lower Italy's rate of drop-out, which is one of the highest among European Countries.

Second, implementation of a system of schoolwide enrichment activities is likely to revive teachers' enthusiasm toward teaching. While there are many factors that contribute to teacher attitudes toward their work, the results of this examination suggest that teachers who teach in SEM schools will be willing to adopt an open-minded view on G&T models and to adopt new strategies to meet the unmet needs of twice -exceptional students and highly able students. The results of this investigation provided clear evidence that teachers' attitudes had grown more than positive about teaching as a result of SEM and even if their future efforts in maintaining the model without the support of an enrichment specialist may be a challenging task, they volunteered to open the SEM class, knowing that no economical enhancement was offered to them.

It is not unusual for teachers, particularly at the onset of an innovation, to feel the pressures related to having to acquire new innovation induced skills or to the different expectations suddenly placed on them from administration.

The SEM implementation in the treatment school has shown that as soon as the concept of talent development began to catch on, students, parents, teachers, and administrators viewed their school in a different way. Students became more excited and engaged in what they are learning; parents found more opportunities to become involved in various aspects of their children's education; teachers begun to find and use a variety of resources that, since the start of the project, seldom found their way into classrooms; and administrators started to make decisions that affect positive out-comes in learning that are conducive to implementing the SEM.

6.19 Limitations

Although the Schoolwide Enrichment Model encompasses entire school units, and although all teachers in both treatment schools were given the chance to take part in the research, only a very limited number of teachers (5) participated in the research.

The experience in the two-years research study shows that a lack of state regulations on programs for talent development does seriously endanger any attempt to make a change. And indeed the research at Trissino School came to a halt simply because teachers volunteering in the project were transferred to other school sites. The principal could not keep faith with the agreement signed with the University of Pavia because of the lack of availability on the part of other teachers in the school.
The Italian School system accords a significant degree of autonomy to professional teachers in schools, especially the degree to which they can make autonomous decisions about what they teach to students and how they teach it, and also decide whether or not participate in school initiatives. Even in front of the many and evident benefits the SEM brought in the treatment class and despite the Principal's open commitment to the project, teachers at Trissino School did not feel any personal, ethical or professional obligation to continue the project nor with respect to both students and parents who agreed to take part in the project, nor with the University of Pavia, needless to say with the Enrichment Specialist (with no scholarship) to support her research.

Another major issue throughout the research study arose from the fact that teachers completely ignored the subject of gifted education and the need of providing resources and strategies to promote talent development was not perceived of prime interests in a school environment. Professional Training in Gifted Education is an urgent matter that should be addressed.

Moreover, Italian teachers are not used to dealing with an external expert, the Enrichment Specialist, in their daily routines. The presence of an external expert was somehow perceived to affect their professional status. At the beginning, teachers who volunteered to take part in the research project felt somehow in competition with the Enrichment Specialist and for a certain period of time failed to take full advantage of cooperating with a trained Specialist in Gifted and Talented Education.
From a bureaucratic point of view, this non-existent professional figure is not allowed to spend time with students involved in the treatment group by herself, neither in class nor in the resource room. The school has to guarantee the presence of a subsidiary teacher to monitor the activities carried out by the Enrichment Specialist. This co-presence could have served as an on-going professional training and an outstanding chance for teachers to learn more about the model or how to infuse enrichment activities in class, but unfortunately during the first year of the implementation process most teachers serving as guardians preferred to spend their time doing paperwork rather than participating in the enrichment activities.
Because of a lack of training in enrichment/acceleration strategies, most teachers considered SEM enrichment activities as 'extracurricular activities' that were to be offered in after-school programs.

Moreover, at present time there are no national guidelines on how to meet the needs of highly able students and existing laws do not clearly define what differentiation strategies should be adopted.
Last but not least, in the two years of the project none of the teachers read the volume The Schoolwide Enrichment Model because it is in English.

6.20 Major outcomes of the research study

The specific factors examined in this research study are student attitudes toward learning, teacher and parent attitudes toward enrichment programs, the extent and quality of students' creative productivity, and the processes involved in the implementation of SEM. Most welcome and somehow unexpected positive results of the research study were obtained.
The three initial goals:

(1) to determine if a school's participation in this type of program would result in specific and quantifiable indicators of schoolwide change, and
(2) to examine whether or not such participation would result in more favorable attitudes toward the entire concept of gifted education
(3) to determine the extent and quality of students' creative productivity,

have been met, but the most extraordinary success is the starting, for the first time in Italy, of a SEM class in a public school in September 2019 in the treatment school were the SEM was first implemented. Despite the general initial reluctance of teachers, at the end of the pilot project the benefits the SEM took to this school were so evident that the administrators decided to be at the forefront of a new trend in talent development in Italy and gained teachers full commitment to continue the experience of the SEM at Maffei treatment school: in September 2019 the first SEM class was opened in an Italian Public School with no funding.

But the most astonishing result that the SEM brought in the community is the opening, in September 2019, of the first full SEM Elementary School in the same city as the treatment school.

Another important goal was obtained thanks to this research study: thanks to the SEM project the Schoolwide Enrichment Model is spreading fast in the country and more and more teachers and principals are becoming interested in the Model. The Enrichment Specialist, in cooperation with LabTalento, arranged an intensive SEM training session for a group of 50 teachers in the Veneto Region which took place in the city of the treatment school in 2018. These eight months course introduced teachers to the emotional and educational needs of highly able students as well as major model and strategies for talent development. Four full months of the training were dedicated to introducing teachers to the main components of the SEM, together with laboratories on how to implement enrichment activities in class.
The Enrichment Specialist, in cooperation with LabTalento is providing SEM Training Sessions in many Regions in Italy at present time.

6.21 Conclusions

This study was framed in literature related to the Schoolwide Enrichment Model (Renzulli & Reis, 2014), to promote talent development in Italian Schools. The SEM is a qualitatively different program that applies acceleration, differentiation and enrichment for students, addressing depth, rather than breadth of content. Given these factors, the SEM can be complex and at times difficult to implement, but while it makes sure that the top 1-3% are still served appropriately, it increases top 1-3% à 10-15%.

The main challenge the Enrichment Specialist faced was a general lack of knowledge on Gifted Education in general and on a misconception on strategies for talent development.

The implementation of a new enrichment program in a school where a program for talent development has not previously existed is a quite challenging task for any experienced Enrichment Specialist. The responsibilities of an enrichment specialist are many and varied and it is not possible to accomplish this goal without a considerable effort on the part of many people including principals, classroom teachers, and resource room teachers. An enrichment specialist must also be able to accept and work with different administrative styles and personalities, assuming a different role in each building in her district.

The experience in the two-years research study has found that some principals readily accepted the enrichment program while others disliked the interruption of their schedule.

Another critical step for the development of a comprehensive SEM program is teachers' training. The success of implementing a school improvement process like SEM can only be accomplished through an organized approach to professional development. Teachers were not aware of the principles, goals, and supporting research of the SEM model, and the Enrichment Specialist had to illustrate the theoretical underpinnings of the Model, as well as give practical demonstrations on the use of recommended teaching strategies, forms and processes provided by the model. Indeed, implementation fidelity is a potential moderator of intended benefits on any model (Brigandi, 2019). Although it is important for educators to use research-based teaching methods and programs (NAGC, 2010), the evidence of efficacy is contingent on implementation as designed (Foster & Missett, 2016; Mihalic, 2004).

6.22 Implications for Future Research

Children with gifts and talents benefit from participation in programs grounded in research-based models (National Association for Gifted Children [NAGC], 2010).

Now that the program has started and that the school does not have an enrichment specialist on staff (there are no positions available for 'Specialists in Gifted Education' in Italy, nor funds to pay external professionals) it is responsibility of the Enrichment Team to maintain what has been developed, as well as to expand services into other areas and continue to improve what is being offered. The Enrichment Specialist approach throughout the implementation process was designed to create local ownership and professional development to a community of teachers who will hopefully maintain and "grow" the program in the years ahead. Indeed, the value of the Enrichment Specialist is best determined by the ownership and commitment to the program's mission that is "left behind" as well as by various on-site training sessions and resources. The Enrichment Specialist met parents of SEM students and they volunteer to be an active resource for the school.

This research on SEM implementation in Italian Public Schools may also prove that the Model has also been integrated with the 8 Key Competences for Lifelong Learning as suggested by the European Community and the merging of both approaches will enable educators to address the learning needs of all students by developing both basic and 21st-century skills.

The buy-in of this research is the belief that when adults enjoy learning and creative productivity, they understand better how children feel about the same process and they will better understand the reason for offering enrichment opportunities and differentiated learning experiences, while promoting students' creative productivity.

With this respect, this research study suggests the need of a new professional figure in Italy, namely the Enrichment Specialist, and the establishment of standards and specialized certification for Enrichment Specialists. A national Association of Specialist in Gifted and Talented Education should be created to promote study and growth, participation in professional activities and research, contributing to the advancement of the field. Enrichment Specialists may also contribute to guarantee that future national provisions and best practices will be put in place in both public and private schools and that opportunities are offered to promote talent development and creativity in all young people, and especially in talented students.

Another positive aspect of this research study is that, in absence of national dispositions on how to identify high ability students, the SEM can assist teachers by providing them with useful tools. Teacher rating scales can be valid instruments for screening students for identification and subsequent participation in the gifted and talented programs. These scales, and the Renzulli Rating scales for that matter, can be used to identify high-ability students in specific content areas. These students may subsequently receive enriched and differentiated curriculum and instruction or acceleration within self-contained classrooms, cluster groups, or heterogeneous classrooms. Such learning opportunities are

necessary in order for students to fully develop their talents in these specific content areas. Students' strength areas can be surveyed at the beginning of each schoolyear by using the new technological tools that enable teachers to compile the students' profile with relevant information about students' interests, learning styles and production styles, upon which any individual and personalized curriculum should be planned.

Creativity levels can be surveyed thanks to new software technologies that calculate average and deviation standards scores, monitoring teaching strategies and learning outcomes of enrichment programs.

We have just entered a new century, and it is quite evident that we should adopt different strategies to ensure that our most able students will solve the problems that threaten our societies, guaranteeing the new generations a rosy future. As educators it is our responsibility to do everything possible to nurture and develop higher thinking skills in our students. The future of our planet depends on it.

The recent controversy over the elimination of gifted education programs in New York City's public schools (Wall Street Journal, 2019) must be viewed in the larger context of the role that schools need to play in changing world conditions, career development opportunities, the job market and the ways in which we can better prepare all of our young people for happy and productive futures (New York Daily News, Renzulli & Reis, 2019).
Traditional gifted education activities are made available to a restricted number of students, and the unfortunate by product of this 'elitism' approach has been negative attitudes toward gifted education on the parts of many people in general education. As Renzulli and Reis declared in the article: 'If we want to rethink education intelligently, we should not talk about eliminating gifted programs, but rather, about extending the opportunities, resources and support that characterize gifted programs to more students.
The hope is that Italy will be able to take advantage of the experiences and waves of trend that characterized the G&T field in the past forty years in the United States and learn how to broadly apply the pedagogical spirit of many gifted education programs to the school population.

6.23 Final Thoughts

Regardless of existing differences in terminology, definitions of giftedness, identification systems, the fundamental task of gifted education is how to cultivate human potential and help create productive and fulfilling life trajectories and pathways for those showing great promise, which are beneficial to society as well as individuals. (Dai, 2018, page11-12)
The talent development approach that emerged in the late twentieth century thanks to the pioneering work of Joseph Renzulli has become a major force in gifted education (Dai, page10) and the new understanding of the nature and nurture of high potential that generated from then helped guide gifted and talented programming (Dai, 2018, page11-12).

As Robert Sternberg put it, "The field of gifted education has had many scholars to work in it, but there have been two giants in the field - Lewis Terman and Joseph Renzulli" (Reis, 2015, page xiv Preface).
E. Jean Gubbins says: "When other researchers and scholars were comfortable with IQ as the way to confirm a child's designation as gifted, Renzulli wondered 'What makes giftedness?' … this question opened up multiple pathways to teaching and learning" (Reis, 2015, page xvii). Renzulli's Three-Ring Conception of Giftedness (1978) and his emphasis on the importance of talent developments revolutionized the field of gifted education and ushered in an era marked by more inclusive approaches to gifted identification and services. As Sandra Kaplan admits, "His large and profound body of work has been and continues to be the impetus for the work of others" (Reis, 2015, page xix). Richard Schwab affirms that "Joe Renzulli will undoubtedly be renowned as one of history's most distinguished educational reformers - among the likes of John Dewey and Maria Montessori - and his influence is sure to endure well into the future".
Hopefully also in Renzulli's country of origin.
This research is a humble contribution to it.

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