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1st International Congress on Gifted Young Scientists Education (ICGYSE)

20-22 November 2020
Istanbul - TURKEY

EDITTED BY
HASAN SAID TORTOP

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ICGYSE 2020

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Proceedings Book

Hasan Said Tortop
Editor

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1st International Congress on Gifted Young Scientists Education (ICGYSE)

Proceedings Book

Edited by
Assoc. Prof. Hasan Said Tortop

Editor's Preface

Journal for the Gifted Young Scientists Education (JEGYS) founded in 2013, has started to be discussed in "Gifted Young Scientists Education" concept in academic world. The ultimate in science education is for the education of gifted children. The problem of how gifted and also young scientists will be trained is the most important problem of education. Because the most important driving force in the progress of humanity are "**gifted young scientists**" .

ICGYSE will be the first congress where all problems related to the education of gifted scientists will be discussed. The models, research and opinions of future trends of gifted young scientists education who study on academicians in this field will be shared regularly on this platform every year. Association for Young Scientists and Talent Education (AYSTE) supports ICGYSE.

The education of the normals of the future is the education of today's gifted children. That is why future education systems in the education of gifted children can look more confident in their future.

Keynote Speech 1: *SEM Update And Some New Research And Projects;* Prof. Dr. Joseph S. Renzulli, The University of Connecticut, US

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Assoc. Prof. Hasan Said Tortop

Istanbul, Turkey - 2020

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Paper ID: ICGYSE1

Type: Oral, Speech

Article topics in the ICGYSEducation: Gifted Education

SEM Update and Some New Research and Projects

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Abstract

A brief update on new development in the Schoolwide Enrichment Model and Renzulli Learning will also include recommendations for a few teacher-authored articles and my hope that some of you will think about sharing your own innovative practices. The best ideas in our work have always been based on successful practices that originated from our own teaching experience and ideas that have come out of the classrooms of creative teachers with whom we have worked. This is a challenge for you to do your own Type III, and we will publish it on our web site and recommend other places where it might be published. One of my ongoing research interests relates to developing new instruments that deal with Assessment For Learning (e.g., Interest-A-Lyzers, Learning Styles Inventory, etc.) vs. traditional instruments that focus on assessment of learning – what students already know (standardized achievement tests, end-of-unit tests, etc.). Laurel Brandon and I are working on three new instruments on which students will responds to rating scale items on Engagement, Executive Functions, and (believe it or not) Enjoyment of Learning. Eventually, we hope to add these scales to the Profiler in Renzulli Learning and electronic analysis will make this easier for teachers to use My most challenging new project, which I will call a sub-theory of our overall work on SEM, is a paper tentatively entitled The Catch-A-Wave Theory of Adaptability: Core Competencies for Developing Gifted Behaviors for the Second Machine Age of Technology.

Keywords:

Renzulli learning, gifted education, Schoolwide Enrichment Model

Paper ID: ICGYSE2

Type: Oral, Speech

Article topics in the ICGYSEducation: Gifted Education

Perceptions of Gifted Students, Mothers and Teachers about Creativity in Gifted Education

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Abstract

Many scientific researches report the importance of creativity in the school context. An environment that stimulates creativity can bring many benefits to all people involved during the teaching-learning process. In this sense, this research aims to investigate the perceptions of gifted students, their mothers and teachers regarding the role of creativity in the education of these children. This article presents a qualitative and exploratory approach with semi-structured interviews, observations and a questionnaire that were used as data collection instruments with 3 gifted students, 2 mothers and 5 teachers in Brazil context. The results show that the participants' perceptions are in line with current scientific research on creativity. It is concluded that according to the participants' perceptions, for the development of creativity to happen, it is necessary that researched schools promote creative and innovative teaching with educational practices linked to art, freedom of expression and autonomy of gifted students.

Keywords:

Creativity, gifted, perceptions, school

Paper ID: ICGYSE3

Type: Oral, Speech

Article topics in the ICGYSEducation: Gifted Education

Are High Achieving Students Popular Among Their Classmates? Results of a Cross-Cultural Study

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Abstract

The current cross-cultural study investigates the expectations of students in relation to highly achieving peers in Australia, Korea, Peru and Vietnam. Students were asked to indicate their expectations about a fictitious new classmate with respect to three categories: intellectual abilities, popularity, and personality. Besides cultural effects, differences concerning the gender of the participating students, the gender of the target students (fictitious highly achieving students), and interaction effects were investigated. Whereas the effects of gender and target gender are inconsistent and negligible, there are significant cultural differences. Vietnamese and Korean students hold the most positive expectations about successful peers. The results are discussed with regard to possible explanations and educational consequences.

Keywords:

Gifted students, cross-cultural study

Paper ID: ICGYSE4

Type: Oral, Speech

Article topics in the ICGYSEducation: STEM Education

Misunderstandings in STEM Education and Practical Suggestions for Developing Countries

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Abstract

As science, technology, engineering, and mathematics (STEM) education moves to an integrated approach in primary and secondary schooling, there is a need to better understand what STEM education is in order to implement it in practice. A review of the literature reveals a wide variety of approaches to STEM education that include: STEM as a replacement term for science and mathematics (Breiner et al., 2012; Sanders, 2009), STEM as a pedagogical shift toward an integrated approach (English, 2016; Honey et al., 2014; Kelley & Knowles, 2016), curriculum changes that reflect the work of STEM professionals (Breiner et al., 2012; Labov et al., 2010; Sanders, 2009), and curricula that emphasize an engineering design challenge (Bryan et al., 2015). Despite these variations in definitions, there are some common elements, including: the inclusion of an engaging, real-world context (e.g., Breiner et al., 2012; Brown et al., 2011); explicit connections between science, technology, engineering, and mathematics and modelling them as they would be used in STEM careers (e.g., English, 2016; Kelley & Knowles, 2016); the intentional development of 21st century competencies (e.g., Bryan et al., 2015; Honey et al., 2014); and an emphasis of student-centred pedagogies (e.g., Breiner, et al., 2012; Labov et al., 2010; Sanders, 2009). In short, integrated STEM education is a complex combination of content and pedagogy, making it difficult to capture and define.

While defining STEM education has proved challenging, assessing the quality of integrated STEM instruction in classrooms proves even more elusive. This is most likely due to the lack of a protocol designed specifically for such teaching. Protocols that measure inquiry-based teaching, such as the Reformed Teaching Observation Protocol (Sawada et al., 2002), have been used in lieu of a STEM-specific protocol, but this choice comes with challenges and limitations. Current observation protocols tend to focus on one discipline, which is problematic when STEM instruction addresses the integration of multiple disciplines.

This paper describes the development of a classroom observation instrument for integrated STEM instruction. This 10-item instrument was intentionally designed not only for research purposes, but to be used as a formative educational tool for improving integrated STEM education. Exploratory factor analysis was performed on instrument scores from over 300 classroom videos to identify latent factors and assess internal consistency of the instrument. This analysis revealed a five-factor solution with the following components: *STEM Practices, Developing solutions for real-world problems, technology practices, STEM careers, Contextualizing learning through STEM*.

Keywords:

STEM education, misunderstandings, developing countries, STEM practices

Paper ID: ICGYSE5

Type: Oral, Speech

Article topics in the ICGYSEducation: Psychological Counselling and Guidance

Counselling Provision for Gifted Students in Malaysia

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Abstract

Malaysia has always been interested in educating its gifted population through the introduction of its various gifted programs since the 1960s. However, these programs slowly perished due to lack of directions, training, funding and leadership. Malaysian interest in gifted education re-emerged in 2006 which led to the formation of the PERMATApintar Program at Universiti Kebangsaan Malaysia. Gifted students are not different from the non-gifted students when facing adversity in life, although they were said to have unique cognitive abilities. As such, effective psychological and counselling support is required to help them persevere in their conquest of developing creative and innovative ideas in knowledge. This paper reports the Malaysian experience in establishing the counselling provision for its gifted students enrolled in this program.

Keywords:

Counselling, gifted students, Malaysia

Paper ID: ICGYSE6

Type: Oral, Speech

Article topics in the ICGYSEducation: Gifted Education

Arab Experiences in Gifted and Talented Education

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Abstract

The gifted and talented individuals are a national ornament, and an important component of development and human promotion. Arab countries, like other countries, have been keen on paying attention to the education of gifted and talented individuals. Therefore, the gifted and talented education is a part of the educational policies and systems in Arab countries. Accordingly, success of gifted and talented education programs depends on the existence of clear and flexible educational policies and philosophy that reflect the general policies in Arab countries. In other words, the existence of Arab educational policies in the education of gifted and talented individuals may contribute to achieving sustainable development and optimal investment of these creative human resources. Consequently, this may help Arab countries keep up with developed countries that pay a great special national attention to creativity, innovation, talent and giftedness. This paper comes to present Arab experiences in gifted and talented education by the following cores:

- The Arab educational policies in gifted and talented education
- The Arab legislation and acts
- The Educational programs for gifted and talented individuals

The Arab Council for the Gifted and Talented (an ambitious Arab project).

Keywords:
Gifted education, Arab countries, facilities

Paper ID: ICGYSE7

Type: Oral, Speech-Fulltext

Article topics in the ICGYSEducation: Gifted Education

Main Issues in Counselling Gifted Children and Youths

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Abstract

Counselling gifted children and their families is of extreme importance for the future of science, technology, the financial situation of individuals, families, communities, countries and continents, and the ability to fight against hunger, poverty, lack of good-enough water and air-pollution, as well as improve the situation of those in need. It is of no less importance for the well-being of the young generation of scientists, artists, politicians, and as we have recently very well understood – health care professionals of all levels and in charge of all tasks responsible for our future and the future of the next generations. Good, supportive counselling those who help all these aims means navigating the gifted in the path that will make them materialize their gifts.

In order to make this happen it has to be kept in mind that there is no "prescription" that can be followed, neither "a set of recommendations". Each gifted child or adolescent is unique; every one of them is entitled to her or his "haute couture" dress or suit perfectly suited for them. However, here are some of the main issues most frequently discussed by parents, teachers, counsellors and psychologists of gifted children:

- The social situation of the gifted child/adolescent,
- Is there a "right time" for teaching a young child reading and writing? Mathematics? Science?
- Class-skipping and the gifted child,
- Pros and cons of revealing the child's giftedness to the kindergarten- or school-teacher,
- Dealing with the boredom of the gifted child in the school system,
- Is there a "most appropriate" class or school for the gifted student?
- Afternoon activities for the gifted child: How many are "too many"?
- Sibling-relationships in the gifted family,
- Parental authority and the gifted child,
- Planning the future education of the gifted adolescent.

These are just a few of the issues I have been asked about for over three decades – mainly by parents and the team-members of the 55+ enrichment programs operating in Israel for gifted children. In this presentation I am to discuss – though in a nutshell – all of them.

Keywords:

Counselling of gifted, gifted education, guidance

Chapter 1. The Social Situation of The Gifted Child and Adolescent, and Their Relationships with their Peers

The social situation of the gifted child and adolescent is always mentioned when gifted children or adolescents are discussed (e.g. David, 2019a; Cross, 2017; Hébert, 2011; Persson, 2007; Rinn, 2018). Usually, it is the very first question people want to know about gifted children. As there is no solid quantitative research about this widely discussed issue, I think that the origin of this question is the perception that there is some "natural justice" in the universe, and thus, if someone has received a gift of supreme intelligence, this person "must" have some problem. As many of the gifted of all ages are introvert (e.g. Bates, & Rock, 2004; Burruss, & Kaenzig, 1999; Dossey, 2016), and no less have a variety of interests, quite a large number of gifted children are not very active socially. As a result, quite often they are perceived as having social problems, while in fact they prefer to be isolated, sometimes estranged to their peers, not spend with others whom they find not interesting enough, not challenging, even boring. Thinking that your class-mates are boring is not necessarily a prejudice or arrogance-related: being gifted means, in most cases, having high verbal abilities. A person with high verbal abilities expresses themselves more accurately than others, can read more complicated texts, understand conversations among professional adults when still young, and in many cases is not willing to listen to what is perceived by them as dull and inarticulate.

It can thus be concluded that as being gifted means usually having high level verbal abilities, gifted children have higher prospects to establish good relationships with others. Verbal abilities are the basis of social connections, as we all, starting from age 2 or 3, use words for communication. A gifted child, even when very young, has usually a larger vocabulary than their peers; can express themselves more clearly, and if they don't suffer from behavioral or emotional problems – will choose, usually at a much younger age than expected, to speak rather than get involved in physical acting-out. Such a child will often be praised by kindergarten- and school teachers and instructors, which will also contribute to their social status. Kindergartners and children in grade 1 and 2 usually want to be friends of their peers who are liked by the teacher, so the liking of the teacher contributes to the gifted child's social popularity.

Language proficiency is an advantage that contributes to the social life of gifted children also in the long run: they tend to establish deep, sincere connections once they find suitable friends; in many cases they cherish long-life-relationships; many of them even find their life-partner while still very young, get married at a young age and live a stable, comfortable life during which they have good prospects to materialize their gifts, as has been shown in the Terman's studies as well as others' (e.g. Burks et al., 1930; Cox, 1977; Janos, 1987; Oden & Terman, 1968; Seagoe, 1975; Sears, 1977, 1984; Terman, 1925, 1954a, b; Terman & Oden, 1935, 1947, 1959).

So why is there such a gap between the actual reality and the false image about the social situation of the gifted child?

Many gifted children feel very good in various social situations, like to belong to several social circles, initiate social parties, conferences, family-gatherings and the like. However, many others, especially the highly gifted, do not. Some of them practice "being social" while still young, and later feel as if it is "a waste of time", or think: "why am I doing it if it is not interesting? This change of behavior seems, for many parents and educators, "a deterioration

of the social situation", and worries them. Quite often it happens that both [rents and educators feel they "must" "solve' the "social problem" of the gifted child, while there is actually no such problem.

In addition, many younger gifted children are social leaders, especially in kindergarten where quick understanding, self-expression ability and good performance are highly appreciated, so quite often the gifted child becomes a group leader. But when older, especially during adolescence, and even more often in adulthood, gifted people do not like in most cases to commit to the role of a leader. During the last decades quite a number of programs have been suggested in order to help gifted children and youths become social leaders e.g. Karnes & Bean, 1996; Matthews, 2004; Ogurlu, & Sevim, 2017), but they have not proved to be a success. There are even studies showing that having an extremely high IQ is a disadvantage for a political leader… One of the main reasons the gifted population in general is not enthusiastic about leadership in many countries is that leaders need to love being with people; the gifted prefer, in many cases, to do other things.

But it seems that the main reason of the common belief about "the social problem of the gifted" it the human tendency to pay attention to the exception, to generalize from the irregular, from what stands out – to the general. We do not pay much attention to the gifted children who fit well, to the gifted youths whose life seem full of activities, who have man friends, to the gifted family whose members live in harmony, each of them develops their own interests, hobbies, sport-, art- music, etc. But we are fascinated by stories we have heard, movies or TV programs we have watched, or the few gifted people we have met – sometimes it was just one gifted person – who was unwillingly isolated, to the poor misfit. Most gifted people who have just a few friends are at least as happy as the gifted or the non-gifted whose social circle is much larger.

In addition, in many cases the number of friends needed has to do with the giftedness level. Usually when a child is highly gifted he or she needs a smaller number of friends for socialization-practicing, develop emotionally, and I general – feel good. But finding suitable friends is not always easy for the gifted child. When young, profoundly gifted children have quite frequently to make compromises, become friends with children they would not have chosen had they had an opportunity to spend time with children of the same- or similar cognitive level. When young, the child's opportunities to meet such children are limited; they usually meet other children in kindergarten or school, in the neighborhood they live, or among their family members. If they are lucky enough, as were the daughters of the Brontë family, for example (see, for example, Hancock, 2013), they have a large nuclear family with many gifted siblings, they do not suffer from isolation. But if they are not, isolation of young children can cause future difficulties. If a child does not have at least one friend with whom they can practice mutual relationships, they might struggle in establishing relationships in the future due lack of both experience and proficiency.

Many gifted children have recently found online friends. This option has been existing for at least 20 years, but before the beginning of the covid-19 pandemic it was not considered satisfactory by parents, educators and counselors. Without intending to getting into the philosophical issue of "can online mates be considered 'real' friends?" there is no doubt that the social situation of a gifted child or adolescent who maintains connections with others, with whom they share interests, thoughts, aspirations or feeling, to whom they show their art, music or literature, is better than that of others who have neither actual friends nor online

mates. In my experience, a child can be quite well adjusted if they have just one friend with whom they meet, while at the same time create a circle of online mates.

In summa: if a gifted child does not have friends it is NOT because of their giftedness; certainly not because of the "others": peers who do not accept gifted peers socially. Sometimes the gifted child lacks basic social skills, such as delaying gratification or being good losers. As for delayed gratification, we have all heard about the 1972 Stanford marshmallow experiment initiated by Walter Mischel. An excellent example of examining who is a good loser is my 1990 experience with the Tel Aviv University chess club. The club was willing to accept young players of all ages, but prior to registration each child has to play one single game when an instructor was watching. In all cases the child lost, as the instructor chose an opponent who was a better player than the new candidate. However, the decision whether to accept the child depended on the candidate, wo was sometimes just 4-year-old. If they managed to wipe their tears (metaphorical or actual), and ask to stay for another game – they were accepted. But if they continued weeping and could not be consoled, or did not cry but rather argued and made excuses for their loss – they were not. When you want to be a good chess player, you lose most of the time during the training sessions, as the better you become – you wish to play against someone who is on a higher level. But if you perceive your loss as a failure rather than an opportunity to learn – you will remain a bad loser, and your loss will be not only of the game but also of friends.

Chapter 2. Is There a "Right Time" for Teaching a Young Child Reading and Writing? Mathematics? Science?

The question whether there is a "right time" to teach a child to read and write, or maybe to do math or science, is of particular importance not only for counselors but also both for parents and teachers of young children. The reason for asking it is that while there is an almost-general consensus of teachers and counselors against teaching "too young" children, the fact is that many gifted kindergarten-children can read, some can also write, and very many can already do third grade math. Educators' attitude towards reading, writing and doing math depends also on the child's age: while more educators eagerly object to it when the child is 3 or 4-year-old, and certainly at a younger age, some comply with it, though do not recommend it for 5-year-old. As there are many "preparing to school" programs for 5-year-old, reading and writing, as well as doing math and science are sometimes perceived as an "investment in the child" future, which is a "proof" of their parents' dedication. Thus teaching 5-year-old is usually not publicly criticized, and kindergarten teachers or counselors who object to it cannot fight against it.

Parents of children younger than 5 who already read, write, or do math are criticized not only by professionals but also by other parents; this attitude contributes to the persistence of the opinion against "teaching young children". In my opinion the main reason for this attitude is jealousy. Comparison of children's achievements are unavoidable, and many parents who realize that such a comparison does not present their children as the brightest bulb, "blame" the parents of the child who reads of "teaching them". Instead of admitting that their child did not reach the developmental stage essential for reading, they insist that they are "against teaching a kindergartner".

The fact is that in almost all cases when a child who is just 3 and is interesting in letters, words, the structure of a sentence the parents are not "to blame". In my experience even when a 4-year-old starts reading, or doing math, it is the child rather than the parent who

initiates the learning of reading or writing, asking number-questions or the names of geometrical shapes. The questions might appear when being busy with everyday activities, such as climbing the stairs, taking the elevator, or even walking along the street – when suddenly the child is interested in the difference of the stairs number between the first and the second floor, or in walking on one side of the street while announcing the even buildings' numbers in an ascending order and then walking back on the other side, while announcing the odd numbers in a descending order. The questions are usually presented unexpectedly, such as when a 5-year-old asks when shopping with her mother in the local supermarket: "why is it necessary to put a sign of an arrow when the word 'EXIT' is written so clearly on the sign?", or when at the entrance to a public toilet the child wants to know, why there are three rooms: one with the world "women", the other with "men", and the third with nothing written but with a wheelchair picture... One of the most frequently question asked by pre-school children is about word-length: pointing at one word they have just acquired, let us say "mosquito", they ask: "why is the word 'mosquito' so much longer than 'dog"? dogs are much bigger than mosquitos? ".

There is always an option of not answering the child, or even worse – telling them that they are too young to understand the answer which they will get when "you are in school", "you are 6, or 7", or "when your teacher thinks it is it time to learn it". But each of these answers is not recommended. The inner message of each of them is: "you need not ask such questions", "we do not have time or patience for you or for your questions", or " you better get busy doing age-appropriate thigs". Such answers not only depress the child's curiosity; it also has a potential to "kill" their motivation to learn, while ruining the relationship between the child and the parent.

All parents should adopt one important rule: any question asked has to be answered. There are many questions whose answers cannot – and should not – be given when the child is not ripe yet, when they might shake them mentally or make them feel shame or guilty. Such questions should get but partial answers, but would not be perceived as lies. But when a child is striving to learn, to expand their knowledge, to widen their horizons – there is no reason why they should not get full answers. Questions about letters, words, the universe or its atoms, numbers or shapes shows that the child had acquired literacy, as well as scientifically and mathematically knowledge. So how can exact facts taught to a curious child interfere with their well- being?

As for worrying about other people's opinion about "teaching the child": I have never met a parent who refused to play ping pong with their 2-year-old, or to let their 3-year-old football. Why should the attitude towards helping the child who asks about what is considered "learning" be different? All children learn all the time. Before starting formal school their life is not divided between playing- and learning-time. They learn while playing, alone or with each other, and when they play, they learn about the world around them: about natural and social rules, about their own present abilities how to be a better climber, how to run faster, how to share things with others and how to overcome disappointments and obstacles. This brings us to another question related to school.

Chapter 3. Grade-skipping and the Gifted Child

Unfortunately, I do not know the answer to the frequently asked question whether it is "good" or bad" to skip a grade; whether it "should" or "should not" be done. Let us turn to history and try to learn from known facts about people who skipped at least one grade while in school.

Grade-skipping was much more popular in the past than it is now; it is also much more popular in underdeveloped- than in first-world countries. Surprisingly, or maybe not so, it happens much more often when gifted education is non-existent or is offered but to a very limited sub-population, mostly for the wealthier, more educated, and higher in the occupational ladder. These facts arise many questions, such as: "is grade-skipping a substitute means for education suitable for the gifted?"; "why has grade skipping been limited in highly industrial countries?"; "is grade-skipping practiced more frequently in some countries as means of saving expenses on those who leave school earlier than was expected?".

These questions, as well as many others, are of great importance. However, as a counselor I am interested only in one question regarding this issue: does grade- skipping contribute to the well-being of the child or adolescent, is it harmful to it, or maybe it is neither?

For many decades both philosophers, other theoreticians of education as well as child-psychologists, counselors and teachers have argued about the pros and cons of grade-skipping. In many countries, mine included, there are two distinctive opinions: the vast majority of mental-health- and education professionals are against grade-skipping, and a small majority stands for it. Thus, when the question of grade-skipping is discussed, and the parents need to find an educational psychologist who will diagnose the child in order to decide whether to recommend skipping or not, choosing a psychologist randomly for diagnosis will most probably result with no recommendation for grade-skipping. During the last 30 years I have received countless telephone-calls from parents starting with: "I want my child to skip a grade, and I call YOU because you are pro-skipping". Time and again I have to clarify that the fact that I wrote a few papers about grade-skipping does not make me a skipping-devotee. Making this mistake is not the parents' blame: being used to the very popular Israeli opinion, which altogether negates grade-skipping, makes them believe that if a professional is not against it – they must be in its favor.

Let us go back to history and look at the life-histories of the Nobel laureates. Almost all of them skipped at least one grade; quite a number skipped more than one. While they all materialized their giftedness, receiving the highest possible public recognition for their achievements, almost all of them had a long happy marriage, more children than the average families from a similar background, they lived longer and were healthier than others belonging to same age-group. All these facts are not a "proof" for any advantage of their early grade-skipping, but it is at least a reinforcement of the assumption that grade-skipping does not result in long-lasting damage of any life aspect.

But while there is not answer to the general issue of pros and cons of grade-skipping, there is a definitive one for each child whose parents or educators deal with it: if the child is assessed for skipping, and if the conclusion of the professional chosen due to their expertise is that the child should skip a grade or enter school early – it is better for the child's well-being to follow this recommendation. A professional who comes to the conclusion that the child should skip a grade takes into consideration all social, emotional physical as well as cognitive aspects involved, rather than prejudices, half-truths and false beliefs.

Without getting to exact details of assessment for grade-skipping, or the "ripeness diagnosis, one must remember that there are quite good criteria for examining the child's readiness to skip a grade. For example: when observing the child from the physical and physiological points of view, the diagnostician keeps in mind that small boys tend to suffer among physically bigger boys; in many cases they are even bullied. Thus, the psychologist

will be reluctant to recommend grade-skipping for a physically small boy even if he is mentally, emotionally and socially developed. On the other hand, big, especially fat girls tend to feel as outsiders both among "regular-size" girls and boys. Gifted girls whose puberty is precocious (see, for example, David, 2019b) should more often be recommended for grade-skipping as they tend to suffer from their double exceptionality; grade-skipping does not make either their giftedness or puberty disappear, but rather relieve the inconvenience they cause.

Before making the final decision about grade-skipping an important question has to be asked: is the skipping going to help closing the gap between the cognitive and the emotional developmental level of the child? The answer should be positive in order to decide for skipping. Closing this gap helps any child or adolescent build their emotional spine; it is, in a nutshell, the main aim of counseling in general and in counseling the gifted in particular. Grade-skipping is means of the counselor's toolbox; not using this tool because of some philosophy or belief is unprofessional, and in a conflict with the Hippocratic Oath.

Chapter 4. Pros and Cons of Revealing the Child's Giftedness to the Kindergarten- or School-Teacher

Revealing the child's giftedness to the kindergarten teacher or to the school-teacher is quite risky. I have already mentioned that they might be reluctant to hear about the child's giftedness. When the teacher is still an enigma to the parents, especially at the beginning of the school-year, it is recommended neither to reveal the giftedness nor to discuss it with anybody else in school, including the parents of the child's peers. After getting to know the teacher a little better, mainly two things have to be taking into consideration 1. Is the child going to benefit from their teacher's new knowledge? Is the label "gifted" going to make their life in school more interesting? More satisfying? Is the teacher going to be more emotionally supportive to them? 2. Assuming that the teacher knows the child is gifted and fully aware of the fact that such a child needs higher-level learning and more challenging assignments. Is the teacher able to offer the child any help in fulfilling their needs? If the answer is "no" to both questions, there is no reason to reveal the child's giftedness to the teacher.

Furthermore, there is a risk that by revealing the child's giftedness to a teacher that cannot help them the child's social and emotional situation will be deteriorated. A teacher that feels overwhelmed because of her difficulty to handle the class, to prepare the materials needed, or to be in charge of all her own tasks might react negatively towards both the gifted child and their parents. So it is better to save the efforts to "explain" her something which is beyond her ability to handle, something she cannot adjust to, or control (David, 2011).

Parents should keep in mind that highly professional teachers, who are both aware of the cognitive needs of the gifted child and are willing to "run the extra mile" in order to supply these needs, will probably identify the child's giftedness without parental help (about such teachers see, for example, David, 2015). Such excellent teachers will most probably approach the parents for discussing the child's giftedness…

In summa: In most cases revealing the child's giftedness to the teacher is not recommended. When the teacher has a gifted child or she had been diagnosed as gifted, such revealing would probably not be necessary, as her personal interest in giftedness will probably serve as lever for a fruitful cooperation between her and the parents of the gifted child. But in all other cases, unless the parent is sure that the teacher both wishes to help their gifted child and has the means required for it, it is recommended not to reveal the child's giftedness and lower all educational expectations.

Chapter 5. Dealing with the Boredom of the Gifted Child in the School System

Another issue that counselors of gifted children have to solve, as many children and parents need an answer to it, is the boredom of the gifted child in the school system.

Discussing the boredom of the gifted child in the school system has many points of view: that of the child, of the parent, of the teacher and of the counselor (David, 2018). They all have one common nominator: boredom is something that is "just there"; it cannot be denied, it does not "get better with time", or "disappear" when learning more or getting deeper into the subject. When a child says that they are bored, or when the teacher feels that her student is not interested in what goes on and rather does something else – the child is bored. Too often when a child is bored the are told to "have patience; if you just wait it is going to be interesting". Such a promise is an empty discourse; one should never promise things they cannot fulfil, and by doing that the teacher loses what had been left of the trust built with the gifted child.

Quite often a school counselor meets a gifted child after such promises have been made. In such cases the first task would be re-gaining the child's trust; this can be achieved by telling the plain truth to the child, namely, that most classes would probably be boring. It should also be explained that there are partial solutions that can ease the life of the child both during school-time and in the afternoons it. In my experience, even 7-year-old, especially when highly gifted, not only understand this "bitter truth" but are willing to go along with it. Many parents, as well as teachers think, that the truth should be presented to children in small doses. I have found that gifted children with no behavioral problems respond positively to the truth, and trust the person who does not try to "protect" them by covering it, while trying to "soften" the truth is an act perceived by many gifted children as lying due to their tendency to "see in black and white" (about moral sensitivity: see Silverman, 1994; Roeper, & Silverman, 2009).

The first task of the counselor of a gifted child is to make them adopt a new perspective of their boredom: rather than think it is all negative, realize that while one has nothing to do, it is possible to ruminate about abstract issues, new ideas, or anything that the child is interested in. In the modern school many children have been taught to believe that boredom is a "major enemy", while gifted children, especially gifted girls, need "time alone" (e.g. Burruss, & Kaenzig, 1999; Olszweski-Kubilius, Lee, & Thomson, 2014; Zorman & David, 2000). The boring hours ca be of use to every gifted child as "time alone" under certain circumstances.

But aside from teaching the gifted child how to deal with boredom, which is a crucial part of self-regulation instruction (on the importance of self-regulation for gifted children see, for example, Housand, & Reis, 2008; Oppong, Shore, & Muis, 2019; Stoeger, & Zeidner, 2019; Tortop, 2015), gifted children can develop their ability to negotiate and compromise by discussing "doing other things in the classroom" with their teachers. When the child is very young, it is usually the parent who is involved in the negotiation, while the child learns "how coming-in-terms works". One such example if of an ADHD 6-year-old who had just started grade 1. As she had been reading at age 4, her mother told the teacher that in order to prevent the child from interrupting her peers, it would be easier to let her read during most of the day. Without mentioning the child's giftedness but rather her disability, the teacher agreed and let her read for the first 4 hours every day, during which she used to finish 3-4 books. Then, before the end of the school day, she joined her peers in painting, gym, the

singing- or the choir class, or the woodwork workshop. Another example, is of a first grader mathematically gifted child (on mathematical giftedness in early age see, for example, David, 2002, 2012a, 2020a). The boy was allowed to take math with grade 4 students, which was convenient for the teacher who preferred this solution to his boredom problem rather than let him do his math work in her class. In that case the solution worked just for a few weeks: very soon the child had already acquired the math he was to be taught during the whole year, as once he had the textbook he learnt it by himself. This 6-year-old returned to his grade 1 classroom, and the teacher decided to let him do math at his own pace; his parents were responsible for checking his homework and making sure he took an exam each time he started learning a new subject.

These are just two of the very many potential solutions aimed to help the child to deal with their boredom in the classroom. In doing that many components have to be taken into consideration, such as the class-size, the availability of the space needed in order to the child do their own work, or the society of which the school belongs to: whether it is more cooperative or more individual (e.g. Dwairy, 2002, 2004a, b; Dwairy, & Menshar, 2006; Dwairy, & Achoui, 2006; Dwairy, Achoui, Abouserie, & Farah, 2006a, b; Dwairy, Achoui, Abouserie, Farah, Sakhleh, Fayad, & Khan, 2006). In more cooperative society it would be much harder for any teacher to teach a gifted child in a different way or at a different pace than in individual society, so it would be hard to recruit her for helping the gifted child in her classroom. Blaming the teacher for the child's boredom will never help, but as long as the adults in charge – mainly the parents and sometimes also the teachers – are willing to face this problem, there are ways to ease it. The main role of the counselor in such cases is to serve as the mediator between the child, sometimes directly and some other times – through their parents, and the school, usually presented by the teacher.

My "secret weapon" when it is hard to come to terms with the teacher, who insists about rules, the equality principle, or the jealousy that the classmates might feel towards the gifted child, is "the coffee-house invitation". In such cases I suggest to parents who need the teacher's cooperation for their gifted child to invite her for a coffee in a neutral place; a meeting over coffee and cake helps quite often to soften even the more rigid teacher who prefers to do things "by the book". However, the "coffee meeting" should be initiated by the parents at an early stage. In cases when the parents meet me after an "explosion" with the teacher, namely, after they had complained about her, blamed her and vice versa, I invite the teacher for a coffee, and leave the location for her to choose. Only after she agrees I ask politely if the parents – usually one of them – can also join us. Many overworked teachers are not used to be treated this way, so when I approach them it increases their readiness to accept unusual solutions to problems such as the boredom of the gifted child during classes.

Chapter 6. Is There a "Most Appropriate" Class or School for the Gifted Student?

Almost 50 years ago, when I was studying for my teacher's license in physics and mathematics at the Hebrew University of Jerusalem, I had to take the course: "the educational meaning of teaching science". The professor was the late Yeshayahu Leibowitz, an Israeli Orthodox Jewish public intellectual and polymath. He was professor of biochemistry, organic chemistry, and neurophysiology at the Hebrew University, as well as a prolific writer on Jewish thought and western philosophy. At that time, he was 70 years old, very young and energetic for his age. I still remember the very first sentence of his first lecture: "there is NO EDUCATIONAL MEANING to teaching science".

As I am also approaching 70, I feel an urge to shout aloud: "there is no such thing as "the most appropriate class for the gifted child". But instead of shouting I am just saying it now. Unfortunately, the belief that "there is a better place for my gifted child" has caused many harms to many families of gifted children. For example: about 15 years ago an Ultra-Orthodox 9-child family, needed my help for their 10-year-old son. After being bored for four years in school they sent him to an out of town, where, they had been promised, the child would have been able to choose classes, skip the less interesting subjects and those he had already mastered, and learn at his own, accelerated pace. The new school was not religious; the child was the only one in the whole school who was wearing a yarmulke, the Jewish head-cover, so he not only behaved differently but also looked as "not belonging". But after the first semester the child, who had taken the more challenging classes, had nothing left to learn there, so he left the school and returned to his old, local one, along with his siblings and former religious friends. Had the parents known that the solution for the cognitive needs of the child would not be answered in that school, he would not have been pulled him out from his neighborhood, his childhood friends, and his basketball mates, but rather look for optional ways to enrich him at home, while relieving his school-boredom.

Another example goes back to the 80ies; it is about a state-religious family whose 8-year-old daughter could choose to stay in her religious school and participate in the local enrichment program for the gifted once a week, or transferring to the regional grade-3 gifted class, which was a part of a secular school. The parents opted for the second, and she left her local, religious school, commuted every morning over an hour to school and then back home. But she could not participate in any of the social activities as all of them took place during the weekends. On Sabbath, the holy day of Saturday, starting on Friday afternoon, no religious family drives, so the girl stayed at home. The girl could neither eat at her friends' houses, as their kitchens were not Kosher. When still in grade 3 or 4 she could not even explain her "food problem", as her friends had not yet heard about the food restrictions in Judaism… Only when they were a little older she solved the food problem by eating her preciously prepared food when occasionally visiting a friend, and managed to schedule weekdays social activities. In that case the child's cognitive needs were finally answered, but it took quite a long time and no less patience.

It can thus be concluded, that each school- or class choice has its advantages and disadvantages, its pros and cons.

Chapter 7. Afternoon Activities for the Gifted Child: How Many are "Too Many"?

Most gifted children are used to hear during their childhood, adolescence and even adulthood, that they are "too active", that they "do too many things", they are "obsessive" or even worse. The intensity of the gifted child has been widely discussed (e.g. Ackerman, 1997**;** Bouchet, 2005; Brennan, & Piechowski, 1991; Daniels, & Piechowski, 2009; Guthrie, 2019; Piechowski, 2006; Piirto, 2000), but it is still considered, many a time, a characteristic that should be hidden, should be "calmed" – especially, but not solely – for girls. An intensive gifted child or adolescent can accomplish a lot, can achieve highly in many subject-matters and life-areas, and they might be able to do it while still quite young. However, it is perceived by most other people, who are much less intense, as something that should be "'calmed".

Let me start with an example taken from my own life: when quite young I used to speak very quickly, as if I was afraid my thoughts would run too quickly without leaving me time to express them vocally. When I started teaching, 48 years ago, my students complained of my

speaking too fast. I apologized for my problem, promised to make an effort to speak slower, and asked the students to help me by raising their hands each time I needed to slow down. This was my first lesson about intensity, when reality forced me to apologize for something I had not thought about as my fault. That was also the first time I understood that even problems that are connected to personal characteristics that can hardly change, such as speech intensity as a part of general intensity, can be solved.

The next time I realized I was speaking too quickly was just a few years later, in 1979, when I gave my first presentation in an international conference. My subject was the Yiddish in the Responsa literature, a subject I find up to now fascinating. However, being just 26 years old, and presenting my study in English in front of a crowd of much older scholars, aroused my excitability, and "pushed me back" to my comfort zone of speaking very quickly. I finished my presentation in 8 minutes; nobody could understand anything, but most of the crowd was too polite to comment about it. The exception was a comparatively-young German scholar, who approached me and said: "Fraulein Ehrenstein [I used my maiden name; at that time "Fraulein" was not considered offensive yet…], from the few words I could grasp, your presentation seemed very interesting, but as you spoke so quickly, I could not understand most of it. Will you please send me the full version?"

The demand of "calming down" is not just about speaking. Counselors of gifted children hear it frequently in questions about afternoon activities, the school-load, sports, music – practically all possible interests and activities. A series of studies delivered by Milgram and her associates (e.g. Milgram, 2003; Milgram & Hong, 1999) has shown, that gifted children and adolescents are usually engaged in many more extra-curricular activities than the non-gifted. So when parents ask: "can my child participate in afternoon activities every single day of the week, sometimes in two" the answer would be, in most cases, "YES". What might be "too much" for one child, will probably be "not enough" for another. Parents have an important role in making sure their child eats well, sleeps well, and in general – seems satisfied. But by no means can they judge "how much is too much" for their child.

A final important remark: many studies have shown, that parents treat gifted boys as if they need more intensive leisure-activities differently than gifted girls (David, 2019b, 2020b). For example: boys are sent to accelerated math programs in a much higher rates than girls (e.g. David, 2008); boys are encouraged to have more hobbies than girls, many more boys than girls take multiple advanced subjects in high-school. Intense girls are perceived by society with much less tolerance than boys, but it is the parents' role to encourage their gifted girls to materialize their giftedness rather than hide – even be ashamed – of it. The counselor's role is to encourage the parents to let go prejudices and old-fashioned public opinions, so they can support both their gifted girls and boys.

Chapter 8. Sibling-relationships in the Gifted Family

As in many other subjects related to gifted children and adolescents, there are many prejudices about bad sibling relationships between the gifted child and his or her siblings. Many parents go as far as denying their gifted children the opportunity to participate in special programs for the gifted, as they are afraid of the deterioration of the siblings' relationships due to jealousy. In the last 30 years I have met too many adolescents and adults who were not told they had been diagnosed as gifted when children; when confronting their parents about it they were usually told that "had you been told that you were gifted, it would have

been difficult to treat you and your brother/sister equally, and we believed that all children should get the same opportunities".

The perception about sibling relationships are damaged when only one sibling is gifted, has been based on beliefs, superficial observations and opinions rather than solid research. In my country, to the best of my knowledge, only one full-population study had been conducted on sibling relationships in the gifted family, and it revealed that the giftedness of one sibling had no influence of the sibling relationships (David, 2013; David, Gil, & Raviv, 2009). Thus, the belief of many parents that giftedness per se is the reason for bad sibling relationships is baseless.

This belief results, in many cases, in overcompensation of the non-gifted sibling, which has, by itself, high potential for feelings of injustice. In addition, many parents tend to claim that "if one child is gifted in mathematics or has exceptional verbal abilities, the other is gifted in sports". This utterance is not necessarily true. The intellectually gifted child can also be gifted in sports, and her sibling might not be gifted at all. False expectations have a high potential for causing bad relationships; this might be the case when one of the children has versatile gifts and the sibling does not show any special talent.

But it should also be taken into consideration that giftedness is highly hereditary (e.g. Rimm, Siegle, & Davis, 2018), so that when one child in the family is gifted, prospects are high that her or his siblings are gifted too. Findings from large samples have shown that

> *Brothers and sisters are usually within five or ten points in measured ability. Parents' IQ scores are often within 10 points of their children's; even grandparents' IQ scores may be within 10 points of their grandchildren's. We studied 148 sets of siblings and found that over 1/3 were within five points of each other, over 3/5 were within 10 points, and nearly 3/4 were within 13 points. When one child in the family is identified as gifted, the chances are great that all members of the family are gifted (Silverman, 2009).*

Even among children with IQ of 170-194, usually occurring between 1:100,000 and 1:1,000,000, there was an extremely high percentage of families with two or more siblings in this range (Silverman, & Kearney, 1989).

In addition to the fact of IQ similarity among siblings, there is an additional problem connected to the IQ-gap assumption: the questionable validity and reliability of giftedness identification. In my country the "giftedness tests" are neither valid nor reliable, and in many cases children with an IQ higher than 160 were diagnosed as "non-gifted" (e.g. cases studies, David, 2010, 2012b). When parents prevent their child who was diagnosed as gifted from getting the educational stimulations they need, while the sibling who had not been identified as gifted does get enrichment and support, the blunt discrimination would most probably be the reason for negative feelings rather than the giftedness per se.

Chapter 9. Parental Authority and the Gifted Child

Many parents of gifted children find it hard to discipline their gifted children. It is also a popular opinion, both among parents and scholars, and as *Vox populi, vox Dei* ["the voice of the people is the voice of God"], it is our task to examine this saying and find why do so many people think of it as absolute truth, and what should be done in order to prevent it.

Let me start with a "real life example". In one of my lectures to parents of grade 3 or 4 gifted children who just started participating in local enrichment programs for the gifted, the very first question was about parental authority. It was asked by the mother of tweens, a boy

and a girl of 8, both participating in the program. She said, that when her son took a shower, he would leave the bathroom floor wet, the cloths spread all over, and the towel in the living room. There were also loud demands, such as: "will someone bring me a towel", and "did anybody see my underwear?' But when his teen sister tool a shower there are always enough towels, the floor remained dry and nothing is forgotten. "Why don't you make your son clean everything after every single time he takes a shower"?" I asked. The answer was "isn't it like that with boys? Are girls not 'naturally' tidy?" Only when I said "no", looked at her and waited till she processed my answer, I knew she started to understand that It was up to her whether her son would become an inconsiderate man, someone who waits for others to do things for him, or a person whose friends and family would be able to rely on.

Parental authority starts from the very basic instructions even a toddle must follow, such as not getting close to open fire or any electric instrument. It goes on to order-following, and as the child grows up – parents must insist that their child would follow the "house laws". This has nothing to do with the child's intelligence; gifted or not – as long as the child lives in their parents' home, the parents are in charge of setting the rules and are responsible for discipline the child.

The main difference between the gifted and the non-gifted regarding parental authority has to do with the age each new rule is presented and the explanations the parents supply. Unlike what many parents think, when the child is gifted, especially profoundly gifted, they can and should be disciplined at a younger age. For example: if a 2-year-old understands why it is dangerous to cross a road alone, or to run while crossing it, they should be praised every time they wait by a red traffic light and say aloud: "we are waiting for the green light". As for the explanations needed: the higher the IQ of the child is, the child needs less explanations. Children must get some explanations along with new rules or laws, especially when they include prohibitions and limitations. But when the child is not gifted, quite often the parent needs to repeat both the prohibitions and the reasons for them. When the child is gifted, on the other hand, too many explanations might start long discussions and arguments, and encourage controversy. If the parent is drawn to it the child might think that the law is negotiable, and possibly will be motivated to disobey future instructions and house-laws. Here is an example of what parents should NOT do in order to achieve parental authority.

A few years ago I taught a "Blockseminar", a 6-day intensive course on developmental issues of children and adolescents at the university of Klagenfurt, Austria. In order to have the students involved more deeply in the material I asked each student to give an example of an incident, a case or a memory connected to parental authority – either from their own childhood or from others'. A 24-year-old Masters' student told us that when he was in grade 12, his mother had forbidden him to use his personal computer for half year because during the first semester of that year he did not obey her law of "no computer before finishing all school tasks". One of the other students asked how had the mother known he had not obeyed her, and the answer was: "she was not satisfied when she saw the half-year school reports so she assumed it was because of the computer's games".

I did not want to tell my student what I thought about the incident, but the other students were not as reluctant. They unanimously came to the conclusion that this act of the mother was not about parental authority, but rather imposing an un-proportional punishment because of an unproven "sin".

Chapter 10. Planning the Future Education of the Gifted Adolescent

Gifted children are very different from each other. Looking through the narrow IQ window, namely, defining giftedness just by measured verbal and mathematical-logical intelligence, the range of their IQ is usually about 70 points. During this conference we heard that in Saudi Arabia the minimal IQ for being eligible to be included in a gifted program is 120; in many countries it is 130; in my country – Israel – where giftedness is not measured by IQ either in the Jewish and most Arab sub-populations, there is an IQ criterion for Bedouins – the Nomads who live in the Negev, the desert and semi-desert region of southern Israel: a minimal IQ of 125. There is no upper-limit to the IQ of children who are accepted to gifted programs, but most IQ tests normally-used have a ceiling of about 160 (e.g. David, 2014a, b, 2016). However, as known from previous diagnoses, there have been children whose measured IQ was over 190 (e.g. Silverman, 2009). Thus, in many groups of gifted children the IQ range is about 70 points; most of the children are closer to the minimum of the minimal cutting point, while the minority, the profoundly gifted, are usually quite different from most of the others regarding their interests, abilities, gifts, and many personality traits (David, 2020c).

As a result, the only answer to the question about planning the future of the gifted child is "it depends on the child". There are gifted children who know, at a very early age, what they are interested in, even what profession they are to choose – and their life track is with accordance with this childhood plan. Others do not know until their late teens, sometimes until much later, what to choose, as they are good at many areas and interested in more.

Thus, the parents have one major role in helping to plan their child's future: NOT to push towards any profession, subject, or learning track. Parents should suggest to their gifted as well as non-gifted children to experience a variety of afternoon activities, courses, special programs, learning materials and everything they can financially and emotionally afford in order to satisfy their children's curiosity, motivation, and ambition to learn. But the final decision what to choose is not theirs, but their children's; as, according to Gibran Khalil Gibran (Arabic: جبران خليل جبران,) (1883-1931), the notable Lebanese-American writer, poet, visual artist and philosopher had stated, their children do not belong to their parents. Here is his famous poem:

On children And a woman who held a babe against her bosom said, Speak to us of Children.
And he said:
Your children are not your children.
They are the sons and daughters of Life’s longing for itself.
They come through you but not from you,
And though they are with you yet they belong not to you.
You may give them your love but not your thoughts,
For they have their own thoughts.
You may house their bodies but not their souls,
For their souls dwell in the house of tomorrow, which you cannot visit, not even in your dreams.
You may strive to be like them, but seek not to make them like you.
For life goes not backward nor tarries with yesterday.
You are the bows from which your children as living arrows are sent forth.
The archer sees the mark upon the path of the infinite, and He bends you with His might that His arrows may go swift and far.

Let your bending in the archer's hand be for gladness;
For even as He loves the arrow that flies, so He loves also the bow that is stable.

* * *

These are just a few of the issues I have been asked about for over three decades – mainly by parents and the team-members of the 55+ enrichment programs operating in Israel for gifted children. In this presentation I am to discuss – though in a nutshell – all of them.
THANK YOU!!!

References

Ackerman, C.M. (1997). Identifying gifted adolescents using personality characteristics: Dabrowski's overexcitabilities*. Roeper Review, 19(4),* 229-237*.*

Bates, T.C., & Rock, A. (2004). Personality and information processing speed: Independent influences on intelligent performance. *Intelligence, 32*(1), 33-46 https://doi.org/10.1016/j.intell.2003.08.002

Bouchet, N. M. (2005). *To give or to take? Assessing five levels of moral emotional development.* Dissertation Abstracts International Section A: Humanities & Social Sciences. Vol 65(7-A), 2005, 2782. US: Univ Microfilms International.

Brennan, T., & Piechowski, M. M. (1991). A developmental framework for self-actualization: Evidence from case studies. *Journal of Humanistic Psychology, 31*(3), 43-64.

Burks, B.S., Jensen, D.W., & Terman, L.M. (1930). Genetic studies of genius, vol. 3: The promise of youth. Stanford, CA: Stanford University Press.

Burruss, J. D., & Kaenzig, L. (1999). Introversion: The often forgotten factor impacting the gifted. *Virginia Association for the Gifted Newsletter, 21*(1). Retrieved from https://www.davidsongifted.org/search-database/entry/a10274

Cox, C.M. (1977). Background characteristics of 456 gifted students. *Gifted Child Quarterly, 21*, 261-267.

Cross, T.L. (2017). *On the Social and Emotional Lives of Gifted Children (5th ed.).* Woodway, TX**:** Prufrock Press

Daniels, S., & Piechowski, M. M. (2009). *Living with intensity: Understanding the Sensitivity, Excitability and Emotional Development of Gifted Children, Adolescents and Adults.* Scottsdale, AZ: Great Potential Press.

David, H. (2002). Geometry in the Israeli kindergarten. In W. Peschek (Hrsg.). *Beiträge zum Mathematikunterricht. Vorträge auf der 36. Tagung für Didaktik der Mathematik vom 25. Februar bis 1. März 2002 in Klagenfurt* (S. 143-146). Hildesheim und Berlin: Verlag Franzbecker.

David, H. (2008). The mathematics acceleration program of the Tel Aviv University (1970-1999). In R. Leikin (Ed.), *Proceedings of The 5th International Conference* Creativity in Mathematics and the Education of Gifted Students (pp. 427-429). Haifa, Israel, February 24-28, 2008.

David, H. (2010). Gifted Case Studies: Keynote. In A. İşman & Z. Kaya (eds.), International Conference on New Horizons in Education: Proceedings book (pp. 7-23). Famagusta, Cyprus, 23rd-25th June 2010.

David, H. (2011). Teachers' Attitude: Its importance in nurturing and educating gifted children. *Gifted and Talented International, 26*(1-2), 65-80.

David, H. (2012a). Mathematical giftedness in early childhood. *International Journal of Research in Management, Economics and Commerce*, *2*(12), 19-31.

David, H. (2012b). Ethical issues in educating and counseling the gifted. *Gifted Education Press Quarterly*, *26*(3), 7-13.

David, H. (2013). Gifted children and their siblings: On research, opinions, beliefs and facts (in Hebrew). *PsychoActualya*, January issue, 46-51.

David, H. (2014a). Why is diagnosing the gifted in Israel so problematic? On the problems of diagnosing gifted children and the difficulties in de-ciphering such diagnoses. *Australasian Journal of Gifted Education, 23*(1), 49-58.

David, H. (2014b). *The gifted Arab child in Israel*. Saarbrücken, Germany: Lambert Academic Publishing.

David, H. (2015). Does the gifted student need a gifted teacher? *Gifted Education Press Quarterly, 30*(4), 7-17.

David, H. (2016). Diagnostic et enseignement pour les enfants hp: l'exemple d'Israël. *Revue économique et sociale, 74*(4), 103-112 [English version: Diagnosing and schooling of gifted children: The example of Israel].

David, H. (2018). Problems and challenges of the gifted adolescent: School-related problems of the gifted adolescent. *Journal of Interdisciplinary Sciences, 2*(2), 113-131.

David, H. (2019a). *Emotionally, Socially and Learning Disabled Gifted Children: Theory and Treatment*. New York: Nova Science Publishers.

David, H. (2019b). Why is the rate of gifted girls' parents seeking help for their daughters is much lower than that of boys'? The gender aspect. In H. David (Ed.), *Understanding Gifted Children: Perspectives, Gender Differences and Challenges*. New York: Nova Science Publishers.

David, H. (2020a). On-line identification of mathematical giftedness: Case study of a 3-year-old girl in Israel. In *On-line dynamic assessment of gifted children during corona-time* (pp. 15-49). New York: Nova Science Publishers.

David, H. (2020b). Personal summary: A Good Jewish Girl Should Watch Her Language*. In On-line dynamic assessment of gifted children during corona-time* (pp. 126-142). New York: Nova Science Publishers.

David, H. (2020c). The conditions for establishing a therapeutic alliance between the counselor and the gifted client. Proceedings of the 1st International Congress on gifted Young Scientists Education (ICGYSE). Istanbul, Turkey: 20-22 October 2020.

David, H., Gil, M. & Raviv, I. (2009). Sibling relationships among Eilat families with at least one gifted child. *Gifted and Talented International, 24*(2), 71-88.

Dossey, L. (2016). Introverts: A Defense. *Explore: The Journal of Science and Healing, 12*(3), 151-160. DOI: 10.1016/j.explore.2016.02.007

Dwairy, M. (2002). Foundations of a psycho-social dynamic personality theory of collective people. *Clinical Psychology Review*, *22*(3), 343-360.

Dwairy, M. (2004a). Parenting styles and mental health of Arab gifted adolescents. *Gifted Child Quarterly, 48*(4), 351-352.

Dwairy, M. (2004b). Individuation among Bedouin versus urban Arab adolescents: National, ethnic and gender differences. *Cultural Diversity and Ethnic Minority Psychology, 10*(4), 350-360.

Dwairy, M, & Achoui, M. (2006). Introduction to three cross-regional research studies on parenting styles, individuation, and mental health in Arab societies. *Journal of Cross-Cultural Psychology*, *37*(3), 221-229.

Dwairy, M., Achoui, M., Abouserie, R., & Farah, A. (2006a). Adolescent-family connectedness among Arabs: A second cross-regional research study. *Journal of Cross-Cultural Psychology*, *37*(3), 248-261.

Dwairy, M., Achoui, M., Abouserie, R., & Farah A. (2006b). Parenting styles, individuation, and mental health of Arab adolescents: A third cross-regional research study. *Journal of Cross-Cultural Psychology*, *37*(3), 262-272.

Dwairy, M., Achoui, M., Abouserie, R., Farah, A., Sakhleh, A.A., Fayad, M., & Khan, H.K. (2006). A first cross-regional research study. *Journal of Cross-Cultural Psychology*, *37*(3), 230-247

Dwairy, M., & Menshar K. E. (2006). Parenting style, individuation, and mental health of adolescents in Egypt*. Journal of Adolescence, 29*(11), 103-117.

Guthrie, K.H. (2019). "Nothing is ever easy": Parent Perceptions of Intensity in Their Gifted Adolescent Children. *The Qualitative Report, 24*(8), 2080-2101. Retrieved from https://nsuworks.nova.edu/tqr/vol24/ iss8/16

Hancock, S. (Producer) (2013, March 31). *Gareth Williams: The Brilliant Brontë Sisters*: A Documentary [Television Broadcast]. ITV.

Hébert, T. P. (2011). *Understanding the Social and Emotional Lives of Gifted Students*. Waco, TX: Prufrock.

Housand, A., & Reis, S.M. (2008). Self-Regulated Learning in Reading: Gifted Pedagogy and Instructional Settings. *Journal of advanced academics, 20*(1), 108-136. Doi: 10.4219/jaa-2008-865

Janos, P. (1987). A fifty-year follow-up of Terman's youngest college students and IQ-matched age mates. *Gifted Child Quarterly, 31*(2), 55-58.

Karnes, F.A., & Bean, S.M. (1996). Leadership and the gifted. *Focus on Exceptional Children, 29*(1), 1-16. DOI: 10.17161/foec.v29i1.6859

Matthews, M. S. (2004). Leadership education for gifted and talented youth: A review of the literature. *Journal for the Education of the Gifted, 28*(1), 77-113. Doi: 10.1177/016235320402800105

Milgram, R.M. (2003). Challenging Out-of-school Activities as a Predictor of Creative Accomplishments in Art, Drama, Dance and Social Leadership. *Scandinavian Journal of Educational Research, 47*(3), 305-315.

Milgram, R.M., & Hong, E. (1999). Creative out-of-school activities in intellectually gifted adolescents as predictors of their life accomplishment in young adults: A longitudinal study. *Creativity Research Journal*, 12(2), 77-87. DOI: 10.1207/s15326934crj1202_1

Oden, M.H. & Terman, L.M. (1968). The fulfillment of promise: 40-year follow-up of the Terman gifted group. *Genetic Psychology Monographs, 77*(1), 3-93.

Ogurlu, U., & Sevim, M.N. (2017). The opinions of gifted students about leadership training. *Journal of Ethnic and Cultural Studies, 4*(2), 41-52

Olszweski-Kubilius, P., Lee, S.Y., & Thomson, D. (2014). Family environment and social development in gifted students. *Gifted Child Quarterly, 58*(3), 199-216.

Oppong,E., Shore, B.M., & Muis, K.R. (2019). Clarifying the connections among giftedness, metacognition, self-regulation, and self-regulated learning: Implications for theory and practice. *Gifted child Quarterly, 63*(2), 102-119. Doi: 10.1177/0016986218814008

Persson, R.S. (2007). The myth of the antisocial genius: A survey study of the socio-emotional aspects of high-IQ individuals. *Gifted and Talented International, 22*(2), 19-33.

Piechowski, M. (2006). "*Mellow* out," *they say*. *If I only could.* Intensities and sensitivities of the young and bright. Madison, WI: Yunasa.

Piirto, J., Cassone, G., Ackerman, C., & Fraas, J. (1996). *An international study of intensity in talented teenagers using the Overexcitability Questionnaire.* Paper presented at Dabrowski Conference, Calgary, Alberta, Canada, May 23, 1996.

Piirto, J. (2000). The Piirto Pyramid of talent development. *Gifted Child Today, 23*(6), 22-29. Doi: 10.1177/107621750002300608

Rimm, S.B., Siegle, D., & Davis, G.A. (2018). *Education of the Gifted and Talented* (7th Ed.). New York: Pearson.

Rinn, A.N. (2018). Social and Emotional Considerations for Gifted Students. In S. Pfeiffer, E. Shaunessy-Dedrick & M. Foley Nicpon (Eds.), *APA Handbook of Giftedness and Talent* (pp. 453-464). Washington, DC: APA Books.

Roeper, A., & Silverman, L.K. (2009). Giftedness and moral promise. In D. Ambrose, & T. Cross (Eds.), *Morality, ethics, and gifted minds* (pp. 251-264). New York: Springer. DOI: 10.1007/978-0-387-89368-6.

Seagoe, M.V. (1975). *Terman and the gifted*. Los Altos, CA: W. Kaufmann.

Sears, R.R. (1977). Sources of life satisfaction of the Terman gifted men. *American Psychologist, 32*(2), 119-128.

Sears, R.R. (1984). The Terman gifted children study. In S.A. Mednick, M. Hanway, & K.M. Finello (Eds.) *Handbook of longitudinal research volume 1: Birth and childhood cohorts*. New York: Praeger.

Silverman, L.K. (1994). The moral sensitivity of gifted children and the evolution of society. *Roeper Review, 17*(2), 110-116. Doi:/10.1080/02783199409553636

Silverman L.K. (2009). What have we learnt about our gifted children? 30th Anniversary 1979-2009. Retrieved from https://www.gifteddevelopment.com/articles/what-we-have-learned-about-gifted-children

Silverman, L.K. & Kearney, K. (1989). Parents of the extraordinarily gifted. *Advanced Development, 1*, 1-10.

Stoeger, H., & Zeidner, M. (2019). Self-regulated learning in gifted, talented, and high-achieving learners. *High Ability Studies, 30*(1-2), 1-8. DOI: 10.1080/13598139.2019.1601326

Terman, L.M. (1925). *Mental and physical traits of a thousand gifted children. Genetic studies of genius, vols. 1 & 2*. Stanford: Stanford UP.

Terman. L.M. (1954a). The discovery and encouragement of exceptional talent. *American Psychologist, 9*(6), 221-230.

Terman, L.M. (1954b). Scientists and non-scientists in a group of 800 gifted men. *Psychological Monographs, 68*(7), 1-44.

Terman, L.M. & Oden, M.H. (1935). *The promise of youth. Genetic studies of genius, vol. 3.* Stanford: Stanford UP.

Terman, L.M. & Oden, M.H. (1947). *Genetic studies of genius. vol. 4: The Gifted ChildGrows Up: Twenty-five years' follow-up of a superior group*. Stanford UP, Stanford CA.

Terman, L.M. & Oden, M.H. (1959). *The gifted group at mid-life: 35 years' follow-up of the superior child*. Stanford, CA; Stanford University Press.

Tortrop, H.S. (2015). A comparison of gifted and non-gifted students' self-regulation skills for science learning. *Journal for the Education of Gifted Young Scientists, 31*(1), 42-57.

Zorman, R. & David, H. (2000). *There is another way: Girls and women – Achievements and challenges* (in Hebrew). Jerusalem: The Henrietta Szold Institute and The Ministry of Education.

Paper ID: ICGYSE8

Type: Oral, Speech

Article topics in the ICGYSEducation: Religion, Moral and Value Education

Gifted Young Scientist Education: New Model for Their Training and Future Perspectives

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Abstract

The importance given to social sciences affects the development of countries due to its effect on other fields. In particular, they are important indicators of developments in educational sciences. Countries that fail to solve the problems of their general education are weak in the education of students with special needs. The education of gifted individuals is considered within the education of individuals with special needs. Discussions about the education of gifted individuals and the perspective of the educated individual from the perspective of social capital increased in the early 2000s. It is now proposed to develop the "wisdom" aspect in the education of gifted individuals. The concept of "Gifted Young Scientist" was introduced for individuals who demonstrate high performance in science or academia at a young age. University-based training programs should be created in the education of these individuals. The components of the Gifted Education Program: University Bridge (GEPUB) Model; teacher and mentor training, student selection, curriculum approach, evaluation. GEPUB is a program that brings a new vision to teacher training. GEPUB is a special training program in which e-mentoring strategy is used. GEPUB was developed by Tortop (2013) and implemented for 3 years. The social validity of this program was found to be high. It can be suggested in terms of bringing a new opening to teacher education.
Keyword:

Keywords:

Teacher education, gifted young scientist education, GEPUB Model, wisdom

Paper ID: ICGYSE9

Type: Oral, Abstract

Article topics in the ICGYSEducation: Religion, Moral and Value Education

Reconceptualization of Higher Education and Social Change to Character Building in Islamic Boarding Schools

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Abstract

In era industrial revolution 4.0, and digitalization of existence of Islamic boarding schools in the application of modern education is questionable. still use traditional pesantren tradition - conventional or change to modern education - virtual as it is now. This research at the University Ibrahimy of Salafiyah Syafi'iyah Sukorejo Situbondo. College students are objects of character building and moral education in pesantren, they are expected to become human beings, have emotional intelligence and be agents of change in society. This paper aims to analyze the impact of character development and moral education of students on social change in society. The results as shown in this paper about the existence of higher education in pesantren able to make students have personality, attitude and good morality. From interviews and content analysis of qualitative data , there are positive implications of the implementation of character education in higher education for social change in society. This paper recommendations the importance of character building, moral education in educational institutions.

Keywords:
Higher education, social change, character building, Islamic boarding schools

Paper ID: ICGYSE10

Type: Oral, Abstract

Article topics in the ICGYSEducation: Religion, Moral and Value Education

Living Qur'an Curriculum Development for Primary School in Indonesia

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Abstract

This research article aims to explain 1) the foundation and construction of Living Qur'an Curriculum in the learning process; and 2) outputs that result from the development of the Living Qur'an Curriculum at the primary school. The main problem of this research is that the Qur'an is not only seen in the aspect of reading books of Muslims, but as a way of life that must always be carried out in the order of everyday life so that humans have a balance of life. This study uses a qualitative approach (case studies), data collection techniques carried out using interviews, documentation, and observation of research informants who include 3 teachers, 20 students and 5 parents, data analysis used in this research is using three steps namely data reduction, data display and conclusion drawing where each of the steps there are several activities that must be carried out. The results of this study indicate that 1) the foundation used in living Qur'an curriculum is the desire to live the Qur'an in daily activity; 2) 15 students from the total number of informants surveyed have been able to participate to bring the Qur'an to life. This finding becomes important to be applied in all educational institutions in Indonesia, accustoming students to learn by living Qur'an as Islamic mission *rahmatal lil 'alamin.*

Keywords:
Religion education, curriculum, primary school

Paper ID: ICGYSE11

Type: Oral, Abstract

Article topics in the ICGYSEducation: Religion, Moral and Value Education

Model for the Internationalization of Multicultural Islamic Education Values in Pesantren

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Abstract

This article aimed to describe a model for internalizing the values of multicultural Islamic education in *pesantren* with the intention of building social harmony among *santri*. Due to the fact that *pesantren* is an integrated educational institution in Indonesia, it is hoped that *pesantren* will become the basic foundation for alternative education to build a peaceful and harmonious Indonesian society. This study was conducted as a case study in *pesantren* which in practice have instilled the values of multicultural Islamic education. To analyze the event by collecting data through Qualitative Interview technique applied to two *Kyai*, five teachers of *pesantren* as well as male and female *santri*, Qualitative Observation in the learning environment and daily activities of *santri*, Qualitative Documents, specifically the number of *santri* along with the *santri* activity documents, Qualitative Audiovisual And Digital Materials, specifically some digital traces of *kyai* and narrated in the form of qualitative-descriptive with descriptive interpretative analysis. The results of this study indicated that the model for internalizing the values of Multicultural Islamic Education uses *tarbiyah* and *taklim* approaches, involves strategies through habituation and culture, teaches the goodness (moral knowing), feels and loves the kindness (Moral feeling and loving), and teaches the exemplary from the surrounding environment (moral modeling), while the method used is implemented through the yellow book recitation, exemplary *Kyai* and *Ustadz*, Spiritual Training, Lifestyle Habits, Discipline, Organization, Motivation, Scouting, and Sports.

Keywords:
Multicultural Islamic Education, *Pesantren.*

Paper ID: ICGYSE12

Type: Oral, Abstract

Article topics in the ICGYSEducation: EFL and Language Education

Effects of EFL Course Enriched with Kahoot on Students' Vocabulary Mastery and Reading Comprehension Skills

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Abstract

This research is aimed to (1) know the implementation of Software Kahoot in teaching learning process (2) to know Software Kahoot to be effective tool for student's vocabulary mastery and reading comprehension (3) to know the response of students when applying Software Kahoot in teaching learning process. This research was carried out in the first semester of students of Sultan Ageng Tirtayasa University Indonesia. The population was 26 students. The researchers used qualitative research with the Classroom Action Research method. The technique that had been used was observation, questioner and written test. The instruments that had been used were observation sheets about using Software Kahoot for students and teacher activity and questionnaires as secondary data then analyzed using qualitative. The results of this research were the percentage of Software Kahoot in the learning process using observation form in student's activity and teacher activity of 82% from 80% based on that percentage the using of Software Kahoot in learning activity is very good. The result of the posttest reached 83 from the Minimum Mastery Criteria (MMC) 75. The secondary data were questionnaire showed that Software Kahoot is able to increase students' comprehension in reading activities by 76.3% and increase vocabulary mastery by 77.4%.

Keywords:

Software Kahoot, vocabulary mastery, reading comprehension

Paper ID: ICGYSE13

Type: Oral, Abstract

Article topics in the ICGYSEducation: Mathematic Education

The Effect of Cognitive Styles on Reasoning and Problem Solving Ability

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Abstract

The purpose of this study was to determine the effect of cognitive style field dependent and field independent on the ability of problem solving and mathematical reasoning. This study is a comparative causal study. The sample of this study amounted to 176 junior high school students taken from three schools in Mesuji regency using the cluster random sampling technique. The instruments used were tests of problem solving ability and mathematical reasoning on geometry material and cognitive style tests using the Group Embedded Figure Test (GEFT). The data analysis used Multivariate Analysis of Variance (MANOVA). The findings of this study indicate that cognitive style has a significant effect on reasoning and problem solving abilities. Other findings indicate that field independent cognitive style is better than field dependent on students' reasoning and problem solving abilities in geometry.

Keywords:

Cognitive Style, problem solving, reasoning, geometry

Paper ID: ICGYSE14

Type: Oral, Abstract

Article topics in the ICGYSEducation: EFL and Language Education

Using Mobile-Learning Model for Improving of High School Students' Language Skills at COVID-19 Era

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Abstract

The difficulties of learning experienced by students during the COVID-19 are sourced from boredom, lack of enthusiasm in learning, and unstable emotions, which are stimulated by the learning design that is not interesting and fun. This research aims to analyze three things; (1) the use of mobile-learning in overcoming students' Arabic learning difficulties, (2) students' attitudes in the learning of the Arabic language, (3) the use of mobile technology-learning in transforming students' Arabic language ability. This research method uses the approach of mixed-method research that is focused on collecting and analyzing data that are done in a series of studies. The respondents of this research are the students of Metro Lampung High School and East Lampung High School, which amount to 80 students of each school. The technique of data analysis uses qualitative and quantitative data analysis techniques. This study results in findings that the presence of COVID-19 has stimulated teachers in improving the creativity in designing leaning based mobile-learning interestingly. The positive attitude of the students increases significantly after using mobile-learning. The result of the t-test is p (2-tailed) < 0.000 which means that the use of mobile-learning can transform students' Arabic language skills. This study contributes that mobile-learning technology that is designed interestingly has overcome various students' learning difficulties. This study recommends the use of mobile-learning in Arabic language learning.

Keywords:
Mobile learning model, language skills

Paper ID: ICGYSE15

Type: Oral, Abstract

Article topics in the ICGYSEducation: Psychological Counselling and Guidance

At a Glance of Twice-Exceptional Children on Psychological Perspective

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Abstract

Twice-exceptionality is a relatively new term in education, counselling, and psychology. Twice-exceptional learners are students who, despite having high abilities in some areas, show disabilities in many aspects of learning, which often causes the disabilities of these individuals to hide their high abilities. A defect in cognitive processing often causes a deficiency in auditory and visual processing and reduces their slow processing of information and has a negative impact on their academic achievement. It is very difficult for them to prioritize and plan. They are easily distracted and experience problems when concentrating and maintaining attention. It is difficult for them to think in the form of a linear model and they may not even be able to follow their desired path. Some of the other cognitive and interpersonal characteristics of the twice-exceptional student from a psychological perspective are: High level of energy reasoning and problem-solving, High energy level, high advance in divergent thinking and extremely creative, High level of reasoning and problem-solving abilities, Superior verbal on the other hand, difficulty relating with peers, weak social skills, avoided from peers and does not attend in school activities, highly sensitive to criticism, negative perfectionist, which means who is scared to risk making a mistake, suffering from High levels of anxiety, Easily frustrated, be exhausted. Eventually more prevalence of Anxiety and depression in them. Thus, the present study aims to define the term twice-exceptionality and introduce a Glance of Twice-Exceptional Children on Psychological Perspective.

Keywords:
Gifted education, twice-exceptionality, psychology

Paper ID: ICGYSE16

Type: Oral, Abstract

Article topics in the ICGYSEducation: Agriculture and Biotechnology Education

Organic Farm Learning and Practical Networks: Convenience Facilitation for Learning and Innovation Leading to Sustainable Agriculture

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Abstract

This study examined the learning achievement and organic farming practice of 45 secondary school students at Praibueng Wittayakom school. They were children of farmers and were trained by purposive sampling. Research instruments in this study were an organic farming learning model, learning achievement test, questionnaire, behavioral observation form, and an in-depth interview schedule. Findings showed that the students had a posttest score level which was higher than the pretest with a statistically significant difference level at 0.01. They were satisfied with the organic farming learning at a high level. Regarding organic farming practice together with 45 farmer guardians through online media, it was found that key elements of learning and organic farming practice were knowledge-generating, stimulation, actual practice, management skill creating, adoption of appropriate technology, discipline implanting, the pride of local value-creating, participatory learning, creating of the learning social through online media, yield value-added, and social/economic change.

Keywords:
Organic farm learning, agricultural education, innovative learning

Paper ID: ICGYSE17

Type: Oral, Abstract

Article topics in the ICGYSEducation: Psychological Counselling and Guidance

Group Counselling with Self-Management Techniques and Cognitive Restructuring Techniques to Reduce Academic Procrastination

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Abstract

The purpose of this study was to examine the effectiveness of self-management and cognitive restructuring counselling groups to reduce students' academic procrastination. Randomized Pretest-Posttest Comparison Group Design was applied to students as many as 24 students in SMP N 3 Bandar Lampung. The instruments used academic procrastination based on the indicators presented by Sholomon and Rothblum (1984). Data analysis techniques were applied using a Paired sample t-test and one-way ANOVA test. The results showed that group counselling techniques were self-management and cognitive restructuring effective to reduce students' academic procrastination. The findings of this study prove the effectiveness of group counselling with self-management techniques and cognitive restructuring techniques in students in the city of Bandar Lampung Indonesia.

Keywords:
Procrastination, self-management, group counselling

Paper ID: ICGYSE18

Type: Oral, Abstract

Article topics in the ICGYSEducation: Thinking Skills

Holistic Skill Education (Holsked) for Kindergarten Students: Importance of Early Skill Mapping to Support Education Planning

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Abstract

Early skill mapping is important to optimise education planning in supporting the implementation of holistic skill education (Holsked). This research aimed to map the skill, to analyse the general difference of the skill, and to formulate recommended action for Holsked planning of kindergarten students. The research was carried out in Sleman Regency. Samples were collected from five kindergartens, including a total of 30 respondents of new entry students. Data collection was carried out through objective assessment by teachers using predefined assessment form. Assessment was carried out to six skill groups, including the religion and moral value, physic motoric, cognitive, language, social emotional, and arts. Data analysis was carried out through non-parametric tests, including Kruskall-Wallis rank test for k-independent samples, and Mann-Whitney test for pairwise comparison. The result showed the skill rank with the following order: religion and moral value, physic motoric, social emotional, cognitive, language, and arts. Students' skills varied from 25 to 100% of expected maximum score, with the average ranging from 44.7 to 52.0%. Kruskal-Wallis test showed insignificant rank difference between skill groups, while Mann-Whitney test showed significant difference between religion and moral value and physic motoric skills to the art skill. The result suggested that education activity planning needs to refer to the required skill development by emphasising on the weaker skills. The result implied that early skill mapping is important to provide a better Holsked teaching plan for kindergarten students.

Keywords:
Kindergarten students, early skill mapping, support education planning

Paper ID: ICGYSE19

Type: Oral, Abstract

Article topics in the ICGYSEducation: Leadership Studies

The Role of Headmaster Leadership in the Implementation of School Based Management at High School

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Abstract

School based management (SBM) has been implemented in Indonesia since 2003. There are many factors that influenced the better implementation of SBM one of them is the leadership style of school headmasters. Leadership is a way a leader influences the behavior of subordinates to want to work together and work productively to achieve organizational goals. Therefore, this study was conducted to explore the elements of the headmasters' leadership construct that influences implementation of SBM in madrasa. This study involved stakeholders of Madrasa State 5 Sleman, DIY, Indonesia as respondents. This study used the full qualitative approach by interview, survey, and observation data collection. The result of the thematic analysis showed that there are six main leadership role elements that have become the factors of good implementation of SBM in madrasa. The role of headmaster's in the application of School-Based Management which includes: headmaster's as managers, leaders, administrators, supervisors, motivators, and innovators are indispensable for leading quality schools.

Keywords:

Leadership style, Implementation school-based management, madrasa

Paper ID: ICGYSE20

Type: Oral, Abstract

Article topics in the ICGYSEducation: EFL and Language Education

The Effectiveness of Animation Video Technology in Arabic Language Teaching on Students of Islamic Elementary School

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Abstract

Students' difficulties come from boredom, lack of excitement, and laziness stimulated by monotonous and uninteresting learning. This research aims to analyze three things: (1) how the use of technology video animation takes place in the process of Arabic learning; (2) how the students' learning attitude performs while using animation video technology; and (3) how the effectiveness of the use of animation video technology enhances the students' Arabic language mastery. This research method uses mixed-method research by combining qualitative and quantitative methods. This research's respondents are the students of State Islamic Elementary School of Metro City, Lampung totalling 70 students. The research instrument is an interview, questionnaire, and test. The Data collected are analyzed using qualitative and qualitative data analysis techniques. This study results in findings that animation video technology has created a psychological atmosphere that is fun for the children. The feeling of pleasure has created students' positive attitude in learning. The positive attitude is characterized by a high learning motivation, spiritful, cheerful, and active in learning. Besides, animation video technology also can transform students' Arabic language ability. The results of the t-test show that sig (2-tailed) is equal to 0.019 < the value of α (0.05), which means that there is a significant influence on the use of animation video technology on students' Arabic-speaking ability. This study concludes that animation video technology designed interestingly has overcome various difficulties of students' learning. This study recommends using animation video technology in teaching the Arabic language to students of Elementary school students.

Keywords:

Language education, animation video technology

Paper ID: ICGYSE21

Type: Oral, Abstract

Article topics in the ICGYSEducation: Thinking Skills

The Integration of 21st Century Skills into Education: An Evaluation Based on an Activity Example

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Abstract

In this study, evaluations based on a performed activity are presented in the context of the integration of 21st Century Skills into Turkish National Education system. The "Where are we?" activity which is presented in detail in the study is an interdisciplinary activity carried out in Mamak Science and Arts Centre with 4th graders. The activity is described in three steps, namely preparation, implementation and evaluation, and its significance in providing students with 4C (Creativity, Communication, Critical Thinking and Collaboration) skills, which are regarded as the foundation of 21st Century Skills, is underlined. The activity is also evaluated in terms of applicability and popularization, and special emphasis is put on the importance of class environment in gaining 21st Century Skills. Within this framework, it is recommended to enhance teacher training and activity samples in quantity and quality for the acquisition of 21st Century Skills in students.

Keywords:

21st Century Skills, activity plan

Paper ID: ICGYSE22

Type: Oral, Abstract

Article topics in the ICGYSEducation: Agriculture and Biotechnology Education

Monitoring and Evaluation to Develop Preliminary Rice Cultivation Curriculum of the School of Rice and Farmers

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Abstract

This study aimed to monitor and evaluate outcomes of the preliminary rice cultivation curriculum of the School of Rice and Farmers, Department of Rice, Ministry of Agriculture and Cooperatives. The sample group in this study included 159 farmers obtained by simple random sampling. A set of 5-scale-rating questionnaires was used for data collection and analyzed content analysis and descriptive statistics. Also, f-test was used for the comparison of a level of adequacy in lecture/practice hours. Results of the study were as follows: 1) Most of the respondents were male, 46-56 years old, bachelor's degree holders, rice farmers, and business owners. They perceived that the adequacy in, lecture/practice hours were at a moderate level (6 subjects) and could be utilized at a high level. However, rice growing, nutrient analyses, and fertilizer application was found at a moderate level. and 2) It was found that the difference in a level of adequacy in 5 lecture classes an 1 practice class had no effect on a level of utilization except the difference in Accounting for a Sustainable Farm subject based on theory/lecture class had an effect on the a difference in a level of utilization with a statistical significance level at .01. Meanwhile, the difference in a level of adequacy in practice hours of nutrient analyses and fertilizer application had an effect on a level of the difference in utilization with a statistical significance level at .05.

Keywords:

Organic farming practice, online media, learning and practical networks, learning achievement, sustainable agriculture

Paper ID: ICGYSE23

Type: Oral, Abstract

Article topics in the ICGYSEducation: Mathematic Education

Developing Mathematical Thinking Skills for 7th Grade Pupils

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Abstract

This research aims to examine a suggested program based on student activity and Conceptual teaching for developing mathematical thinking skills for first year preparatory pupils in Israel. The researcher uses the experimental approach to examine the effect of the proposed program on seventh graders in Israel and the study relied on the mathematical thinking test and on the proposed teaching program. The sample of the study consisted of 136 male and female students. The experimental group consists of 66 male and female students, and the control group consists of 70 male and female students. The experimental treatment of the results led to the following conclusions:

- There are significant differences between means of pre-and post-test scores of experimental groups on mathematical thinking.
- There are significant differences between means of post-test scores of experimental and control groups on mathematical thinking the program achieved high effectiveness in developing mathematical thinking skills.

The importance of the research lies in the fact that it benefits teachers in identifying the levels of mathematical thinking for their students, which provides an opportunity to develop them, and to know the importance of mathematical thinking and its exploitation in the educational process.

Keywords:

Mathematic education, mathematical thinking skills, secondary school students

Paper ID: ICGYSE24

Type: Oral, Abstract

Article topics in the ICGYSEducation: STEM and Science Education

Making Undisrupted Learning Through STEM at Home Project Assignment in The Covid-19 Pandemic Era: Teacher's Experiences and Intentions

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Abstract

The Covid-19 pandemic has raised a number of problems as well as new opportunities in learning innovation. The limitations of distance learning infrastructure, such as internet connection and limited learning facilities at home, impact the loss of orientation and the emergence of teacher panic in responding to the low involvement of students actively in the learning process while studying at home. This study explores a number of teachers' efforts to maintain the continuity of the learning process in the Covid-19 pandemic era through STEM Education. The research used a mixed-method approach with an explanatory sequential design involving 195 science teachers. Quantitative data were collected through online surveys using a google form, whereas qualitative data were collected through Focus Group Discussion web meetings. The results of a survey on the experience of science teachers in managing learning show that the STEM approach is one of the best alternatives in maintaining active student involvement in learning science during a pandemic. Also, STEM-based project assignments at home play a role in helping students make strong connections between science concepts and their application in everyday life. Besides, the STEM learning approach maintained science teachers feel motivated by their intentions to improve their learning quality and make meaning with science in an unpredictable situation like pandemic covid-19. Furthermore, this study has shown that the assignment of a science project in the form of a hands-on activity entitled STEM at Home is an effective alternative in ensuring student learning rhythm continues during the Covid-19 pandemic.

Keywords:

Undisrupted Learning, Covid-19, teacher intention, students hands-on activities, STEM at home

Paper ID: ICGYSE25

Type: Oral, Abstract

Article topics in the ICGYSEducation: Psychological Counselling and Guidance

The Influence of Body Image on Interpersonal Communication Skills in Teaching (Psychological Humanistic Approach)

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Abstract

This study aims to analyze the impact or influence of body image on interpersonal communication skills in teaching students of IAIN Purwokerto. The population of this study includes all IAIN Purwokerto students for the 2019/2020 academic year who have worked as teachers. The research subjects were selected by *cluster random sampling* by selecting students who had worked as a teacher because it was assumed that they already had teaching experience so that there were radical physical changes that affected their psychological and social life. The test was carried out using the regression analysis technique through SPSS version 16 for Windows. The research shows some results: *first*, that body image has a good and significant effect on interpersonal communication skills in teaching; *second*, the magnitude of the influence of body image on interpersonal communication skills in teaching is based on the coefficient of determination is 0.304 with sig: 0.002 so the magnitude of the effect is 33%.

Keywords:
Body image, interpersonal communication skills

Paper ID: ICGYSE26

Type: Oral, Abstract

Article topics in the ICGYSEducation: Gifted Education

Effect of online Training Program on Omani Teachers' Self-Efficacy of Gifted Learners with Learning Disabilities

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Abstract

This research aimed at identifying the effect of online training program on Omani teachers' self-efficacy of gifted learners with learning disabilities. The sample of study consisted of 60 Omani teachers of learning disabled students. The participants were assigned into two groups: control (n=30), and experimental (n=30). A self-efficacy scale and a training program were developed. The scale was administered to both groups as pretest and posttest. The experimental group received the training program based on synchronous learning. While, the control group received the training program based on asynchronous learning. Results indicated that there were statistical significant differences on the posttest of the self-efficacy scale in favor of the experimental group. These differences were due to the training program based on synchronous learning. The research recommended that the Omani Ministry of Education use the training program and self-efficacy scale in training programs for teachers.

Keywords:

Online training program, self-efficacy, gifted learners with learning disabilities, Omani teachers, synchronous learning, synchronous learning

Paper ID: ICGYSE27

Type: Oral, Abstract

Article topics in the ICGYSEducation: EFL and Language Education

The Development of Learning Tools of Multicultural Education through Content and Language Integrated Learning (CLIL) Assisted by Flipgrid for Bilingual Classroom Students of PGSD FIP UNNES

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Abstract

The purpose of this study is to develop multicultural education learning tools that are valid, effective, and practical so that students' learning activities and outcomes increase. Based on the preliminary study, the implementation of PGSD's Bilingual class still has some challenges to be overcome. During the learning process, in general, lecturers still use lesson plans and teaching materials of multicultural education written in Indonesian language. Some lecturers have difficulties integrating English with course material. These things need the development of learning tools with the CLIL approach assisted by flipgrid. This research is a R&D based on 4-D model from Thiagarajan. The subjects were 25 students in a Bilingual Classroom. Tests, observations, questionnaires, interviews, and documentation are used to collect the data. Data were analysed by using qualitative and quantitative descriptive analysis. The learning tools have met the validity criteria based on three experts' judgments. Learning tools are effective to improve students' learning outcomes as proved by the results of the N-gain test which obtained <g> of 0.70 in the high category and an increase in the average score of learning outcomes from 36 (pre-test) to 81 (post-test). Based on observation, the average score of student activities experienced an increase from $\bar{X}$=19.6 (low category) to $\bar{X}$=27.1 (very high category). The learning tools are also practicable as evidenced by very positive responses given by students. Based on these results, the learning tools have fulfilled valid, effective and practical requirements.

Keywords:

multicultural education, language education

Paper ID: ICGYSE28

Type: Oral, Abstract

Article topics in the ICGYSEducation: Gifted Education

The Potential Impact of the Covid-19 Pandemic on the Geometric Thinking of Omani Talented Students

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Abstract

The aim of this research was to identify the potential impact of the covid-19 pandemic on geometric thinking levels among talented students in the Sultanate of Oman. The sample of research consisted of 64 academically talented students enrolled in Al-Tafawaq School for Basic Education. To achieve the aim of this research, the geometric thinking test was developed after reviewing the Omani mathematics curriculum for the elementary stage and Van Hiele's Theory of Geometric Thinking. Therefore, the final version of the test consisted of 15 multiple-choice questions which were subdivided into the following geometric thinking levels: visualization, analysis, and informal deduction. The results showed there was a low level of geometric thinking among Omani talented students during the Covid-19 pandemic. The results also showed that there were no statistically significant differences according to gender. Consequently, the research recommended that these students should be provided with enrichment activities and homework based on geometric thinking levels during the pandemic**.**

Keywords:

Covid-19 Pandemic, geometric thinking, talented students, Van Hiele model , Sultanate of Oman

Paper ID: ICGYSE29

Type: Oral, Abstract

Article topics in the ICGYSEducation: STEM and Science Education

The Development and Implementation of the Sustainable Intervention Strategies for Solid Waste Management in Primary Schools: A Case of Nkangala District, Mpumalanga Province

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Abstract

The aim of the study is to develop and implement sustainable intervention strategies for solid waste management in schools in Nkangala District, Mpumalanga province. The interests of the study are based on anecdotal evidence, as the researcher observed that some of the schools and classrooms in Nkangala district are polluted with solid waste and there are no (or minimal) waste management initiatives that are implemented to manage waste effectively. This is a qualitative interpretative multiple case study design embedded within a social constructivist theoretical framework.. Three intermediate schools under Thembisile Hani local municipality, Dr JS Moroka local municipality and Emalahleni local municipality will be purposefully sampled based on quintile 1, 2 and 3. Targeted participants will be learners, teachers, school principals, general workers and school governing body members. Qualitative data will be collected through semi-structured interviews, focus group interviews, observations, diary and open-ended questionnaires. Pseudonyms will be used to protect the participants' identities. Qualitative data will be analysed using a typology approach based on the research questions, categories and themes as well as the theoretical and conceptual frameworks underpinning the study. This is not a comparative study as the researcher seeks to develop and implement sustainable intervention strategies that accommodates each school. As a result, all data collected will be analysed as a single case.

Keywords:
solid waste management, environment education

Paper ID: ICGYSE30

Type: Oral, Abstract

Article topics in the ICGYSEducation: Leadership Studies

Factors Effecting Basic Education School Administration Using School-based Management, Nam Nao District, Phetchabun Province, Thailand

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Abstract

This study aimed to: 1) investigate school management in highland areas of Thailand and 2) analyze the Confirmatory factor analysis of school management there. Six sample groups of 377 concerned personnel in this study consisted of: 1) school committee chairpersons, 2) school administrators, 3) teachers, 4) school committee, 5) student council, 6) guardians, and they were obtained by multi-stage random sample. A set of questionnaires was used for data collection and analyzed by using descriptive statistics. Besides, Confirmatory factor analysis was done by using the statistics for Confirmatory factor analysis was done by using the statistics for Confirmatory factor analysis. The results of the study revealed that the main variable on participatory management had a highest average mean score ($\bar{X}$= 3.88). This was followed by self-management principles ($\bar{X}$= 3.82) whereas decentralization principles had a lowest average mean score ($\bar{X}$= 3.64). The school management in highland areas of Thailand consisted of 3 observed variables: decentralization principles, participatory management, and self-management (Standard factor weight = 0.76, 0.98, and 0.95, respectively (x^2 = 538.55, df = 536, x^2/ df = 1.00, p-value= 0.46, NFI = 0.97, RMSEA = 0.01).

Keywords:

School-based management, teacher education

Paper ID: ICGYSE31

Type: Oral, Abstract

Article topics in the ICGYSEducation: Religion, Moral and Value Education

The Existence of College and Social Changes to Character Building in Islamic Boarding School

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Abstract

In the 4.0 industrial revolution era and digitalization, the existence of boarding school in applying modern education is questioned. Does it still hold boarding school tradisional tradition – conventional or shift into modern education – virtual to follow current development. This research is done in Ibrahimy University Syafi'iyah Salafiah Islamic Boarding School Sukorejo Situbondo. Students became the object of moral education, character building and personality of students who must obey the boarding school rules. Islamic boarding school education in the globalization era must work together in forming moral human, ethical, emotional intelligence so that they are able to become the agent of chance. This article aims to analyze the effect of character building and students' moral to social changes in community. It revealed in this article the existence of college education in boarding schools is able to form the students who have character, moral and akhlakul karimah. Based on interview and content analysis to qualitative data showed there is positive implication from the application of the character education in boarding school college to community social changes. This article suggests it is necessary to have local policy by revising the boarding school rules about the graduation requirement directly proportional to the graduation in Ta'hilitah where it becomes a place to learn and read yellow books for students.

Keywords:

College education, social changes, character building, islamic boarding school

Paper ID: ICGYSE32

Type: Oral, Abstract

Article topics in the ICGYSEducation: Gifted Education

Knowledge Level of Gifted Students with Learning Disabilities by Omani Resource Room Teachers

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Abstract

This research aimed at identifying the knowledge level of gifted students with learning disabilities (GSLD) by Omani resource room teachers. The sample of the study consisted of 18 female teachers. The participants were enrolled in a Master's degree program of learning disabilities at Sultan Qaboos University, Oman in the academic year 2019/2020. The participants responded to the knowledge test of GSLD. This test consisted of 35 true and false questions related to gifted education. The questions were subdivided into the following areas: identification, categories of GSLD, diagnosis, educational programs, teaching strategies. The results showed a weak knowledge in resource room teachers about the GSLD. The research recommended that Omani resource room teachers be joined pre-service or in-service training programs based on the GSLD. The research also recommended offering courses for the master's program that deal with the GSLD.

Keywords:
Resource room teacher, GSLD, knowledge, Oman

Paper ID: ICGYSE33

Type: Oral, Abstract

Article topics in the ICGYSEducation: Agricultural and Biotechnology Education

Assessment Monitoring of Watershed Management to Reduce Risk Disaster and Community Adaptation to Climate Change in Pasak River Basin Area, Thailand

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Abstract

This qualitative study was conducted to assess the monitoring of watershed management to reduce disaster risks and community adaptation to climate changes in the Pasak river basin. This study also employed participatory action research by using learning exchange venues, surveys, interviews, and focus group discussion methods. The locale of the study was at Pong sub-district, Loei province. Research instruments were observation form, data recording form, an in-depth interview conducted with a target group of 105 people. The results found that almost all of the informants were engaged in agriculture. Most of the informants living in Pasak river basin had problems in water management for living and agricultural purposes. Therefore, the community solves these problems by keeping water in big containers, building cluck-dams, and digging a big pond for public use. It was observed that community participation in the conservation was rather little and not consistent with the development plan of concerned agencies. In addition, it was found that legal limitation was an important problem encountered, including a policy of the public sector that had a negative impact on people around the upstream area. The main management guideline gained from the study were: 1) coordination of all parties in preparing a strategy for the improvement of the eco-agricultural area which was consistent with the area condition, 2) support on in-depth eco-agriculture guidelines for the adaptation to global warming condition and natural calamity, and 3) using the public policy to solve the problem and concerned party participation for sustainable utilization.

Keywords:

Monitoring for situation assessment, watershed management, disaster, community adaptation, participatory process, Pasak river watershed

Paper ID: ICGYSE34

Type: Oral, Abstract

Article topics in the ICGYSEducation: STEM and Science Education

A Feasibility Study on the Integrated Science-Based Scientific Literacy Test at State Senior High Schools

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Abstract

The Science Education Study Program of Universitas Pancasakti Tegal in collaboration with SMAN 2 and SMAN 3 Tegal has been trying to develop the integrated science-based scientific literacy test to measure the XII grade science students' scientific literacy skills. Thus, a feasibility study was conducted aiming at: (1) arranging the instruments of the test; (2) validating the test instruments; (3) arranging the test implementation guidelines; (4) testing the criteria validity on the test results; and (5) formulating the test implementation policy. The feasibility test stages of the test used the *Research and Development* approach with the ADDIE model. The analysis, design, and development stages were conducted in the first research year involving 112 students. Meanwhile, the implementation and evaluation stages were conducted in the second research year involving 310 students. The results of feasibility study showed that: (1) the instruments of the test have been arranged based on the scientific reading analysis using the scientific literacy indicators based on PISA 2015; (2) the instruments of the test have entirely met the Messick's validity aspects by implementing the Rasch model covering content, substantive, structural, external, generalization and consequential validity; (3) the minimum passing grade of the test was 42.8 % of the maximum achievement, while the reporting model was arranged in the profile forms; (4) the test has met the criteria validity; and (5) the implementation of the test at schools can be performed following the regulations of school principals and policies made by the Educational Office of Central Java Province.

Keywords:
Integrated science-based scientific literacy test, science education

Paper ID: ICGYSE35

Type: Oral, Abstract

Article topics in the ICGYSEducation: Agriculture and Biotechnology Education

Guidelines on Competency Development of Agricultural Vacation in the 21st Century for the College of Agriculture and Technology

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Abstract

The objectives of this study were to explore the condition of teaching and learning for competency development of agricultural vocation, take off experience and analyze guidelines, and propose guidelines for developing manpower in the 21st Century agriculture vocation. Mixed method research was conducted using an in-depth interview with the sample group of 43 administrators of the College of Agricultural and Technology (CAT) and 86 Animal and Plant Science teachers and they were obtained by purposive sampling. Also, the focus group discussion was conducted among 279 students at the CAT. Besides, a set of questionnaires was used for data collection administered with 76 teachers at the CAT. Obtained data were analyzed by using descriptive statistics and content analysis. The results of the study revealed that the teaching and learning process emphasized integration, systematic thinking, actual life connection, learning through actual practice, digital agriculture, online marketing, business plan presentation, and agricultural products for health. As a whole, the teacher informants had a high level of their opinions about the importance of competency development of manpower on the 21st-century agricultural vocation ($\bar{X}$=4.45, S.D.=0.42). Regarding knowledge development, the teacher informants put the importance on quality task control and development ($\bar{X}$=4.55, S.D.= 0.60). They agreed that it should have the development of farm skills and practice ($\bar{X}$=4.73, S.D.=0.45, $\bar{X}$=4.41, S.D=0.74). Besides, they agreed that it should have the development of self, organizational and social responsibility ($\bar{X}$= 4.78, SD.=0.41, $\bar{X}$= 4.47 SD.=0.73).

Keywords:

Competency of agricultural career, 21st century, agricultural career, guidelines on development

Paper ID: ICGYSE36

Type: Oral, Abstract

Article topics in the ICGYSEducation: Gifted Education

Parents' Satisfaction with the Services of Gifted Education Program during the COVID-19 Pandemic

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Abstract

ASoud Global School is one of the international private schools established in the Sultanate of Oman in 2016. Students are taught according to the British curriculum. ASoud Global School in Muscat offers services to gifted and talented students (GTs) by resource room. This research aims at identifying the level of parents' satisfaction with the services offered by the resource room to their GTs during the COVID-19 pandemic. The research sample consisted of 120 parents who responded to an e-questionnaire. The questionnaire was developed after reviewing the standards of the National Association for Gifted Children (NAGC), and theoretical literature. The questionnaire was composed of 97 items divided into 6 domains. These domains were related to learning and development, assessment, curriculum and instruction, learning environments, programming, and professional learning. It is expected that this research will reveal the level of parents 'satisfaction with the gifted education program and if the level of this satisfaction is affected by gender and nationality of the parents. This research recommends conducting cross-cultural research on satisfaction level in the various branches of ASoud Global School inside and outside Oman. Moreover, the Ministry of Education adopted the idea of establishing the gifted education program in Omani general education schools.

Keywords:

parents' satisfaction, gifted education program, resource room, ASoud Global School, COVID-19, Oman

Paper ID: ICGYSE37

Type: Oral, Abstract

Article topics in the ICGYSEducation: Mathematic Education

Analysis of Student's Errors in Solving Trigonometric HOTs Problem from Commognitive Perspective

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Abstract

This study aims to describe the commognitive analysis mistake of solving HOTS questions with trigonometric material from the perspective commognition. The problem of this study is that students have difficulty solving mathematical problems because students do not build their own knowledge of mathematical concepts but tend to memorize concepts so that when students solve math problems students often make mistakes and do not find solutions to solve these problems. Students also taught themselves that math is difficult. This type of research is a qualitative description. The research subjects were three grade X students of Senior High school 1 Pamekasan. The instruments used in this study were mathematical problem sets and semi-structured interviews. The results showed that students experienced faults in 1) word use (Mistake writing mathematical symbol and not consistent in writing naming); 2) Visual mediator (mistakes in drawing or illustrating the problem); 3) Narrative (not writing the formula but writing the results directly); 4) Routine (inaccurate in arithmetic operations so that the final answer is wrong). With this research, teachers can find out where the difficulties and misconceptions of students are in doing it so that it becomes new learning for students to improve learning outcomes and minimize errors.

Keywords:
Commognitive, trigonometry

Paper ID: ICGYSE38

Type: Oral, Abstract

Article topics in the ICGYSEducation: Computer Education

The Development of Guide book for Implementing Online Learning through Google Classroom Assisted by Zoom as a WFH Solution for Elementary School Teachers

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Abstract

Education in Indonesia has been affected by the Covid-19 pandemic which was followed up by closing of schools and replacing them with studying online at home. Since the implementation of it in several provinces, a number of teachers have started to get confused about how to teach their students because there is no online learning guide (Rahim, 2020). A preliminary study conducted at the Drupadi Cluster, shows that many teachers experience difficulties in implementing online learning. This research aims to develop an online learning guide book through Google Classroom with Zoom assistance that is valid, effective, and practical for elementary teachers. This is an R&D that refers to the 4-D model from Thiagarajan, but is limited to the development stage. The trial subjects were 40 teachers. Data collection techniques used tests, observations, questionnaires, interviews, and documentation. The data analysis technique used qualitative and quantitative descriptive analysis. The guidebook has met the valid criteria with the average score obtained from the assessment of three validators is 3.56. Guidebook is also effective for increasing teachers' knowledge of online learning as evidenced by the results of the N-gain amounted to 0.60, included in the moderate category. It is also effective in facilitating teachers to improve their online teaching skills as proven by the average score of $\bar{X}$=20.3 (very high). It has also met the practical criteria indicated by the average response score of all teachers is $\bar{X}$=55.38 (very positive). The developed guidebook has met the criteria of being valid, effective and practical.

Keywords:
Guide book, google classroom, zoom, teacher

Paper ID: ICGYSE39

Type: Oral, Abstract

Article topics in the ICGYSEducation: Gifted Education

Standards and Indicators on Preparing Omani Gifted Education Programs: A Suggested Proposal

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Abstract

The national strategy for education according to Oman Vision 2040 is based on developing human resources that possess the values, knowledge and skills necessary for work and life. Gifted and talented students are the target groups in this strategy. However, the current reality confirms the absence of gifted education programs in Omani general and higher education institutions. This requires thinking about constructing a national strategy for gifted education to be consistent with the elements of the national strategy for education in Oman. This research aims at presenting a suggested proposal of the standards and indicators of the gifted and talented education programs in Oman. This research used the Delphi method to determine standards and indicators needed for preparing gifted education programs. The research sample consisted of 7 experts' panels in the education of gifted and talented students. These experts work in the universities and the Omani Ministry of Education. To achieve the research objectives, a scale of standards and indicators was developed after reviewing the theoretical literature, specialized professional associations, and academic accreditation commissions. The initial version of the scale consisted of 113 indicators distributed on 9 standards. The scale was distributed electronically to experts. These experts responded on the scale in three rounds. Using frequency and percentage, the results showed that there was an agreement among these experts on the following: I. 87 indicators represent indicators of preparing programs; II. 6 standards represent standards of preparing programs; III. 16 indicators represent standards of program nature; IV. 13 indicators represent standards of learning and development; V. 26 indicators represent standards of curriculum and teaching methods; VI. 14 indicators represent standards of evaluation methods. VII. 10 indicators represent standards of the educational environment; VIII. 8 indicators represent the standard of teachers' professional development. The research recommended that the Ministry of Education adopt these standards and indicators and establish programs for gifted and talented students in the Sultanate of Oman.

Keywords:

Standards, indicators, gifted education programs, Sultanate of Oman

Paper ID: ICGYSE40

Type: Oral, Abstract

Article topics in the ICGYSEducation: Computer Education

Examining the Teachers, Administrators and Parents' View on Drawbacks of Technology Use in Education

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Abstract

Teaching technology involves in itself the use of technical means and the entirety of procedures in organizing and developing the teaching process in the school. Teaching technology is the ultimate precondition for the development of education as a whole. It is complex in nature, puts the student in the active position, the teacher is seen as coordinator, assistant, guide, motivator, incentive during the learning process at school. The foundation of technology in contemporary teaching is the subject-student and the teacher. The most important types of technologies are considered: smaller learning technology which includes simple tools while the major technologies include the use of composite tools and sophisticated with higher rates such as: computers, televisions, teleconferencing, and other more advanced digital learning tools. The current research examines the use of technology and its impact on students. The purpose of this study is: to show the impact of the use of technology in contemporary teaching, to see and understand opinions, experiences, and perceptions of teachers, principals, parents and pupils with educational technologies, and to draw conclusions on the impact of the technology in the learning process. The research will be carried out through mixed methods, respectively quantitative and qualitative methods. Quantitative data collection includes questionnaires that will be prepared for: teachers, principals, parents and pupils. The teacher questionnaire will contain 3 questions, the questionnaire for parents 3 questions, the principal questionnaire 3 questions as well, and 2 questions the questionnaire for pupils. The research will include 70 teachers throughout Kosova, 60 parents, 10 principles of Kosova elementary schools, 50 pupils of elementary schools. The results from this research indicate that the use of technology has a positive effect because it encourages students to acquire new knowledge in almost all subjects. Moreover, the use of technology affects pupil's development and improves the quality of educational outcomes.

Keywords:

Technology, school, teacher, pupil, teaching

Paper ID: ICGYSE41

Type: Oral, Abstract

Article topics in the ICGYSEducation: EFL and Language Education

e-Assessment in Indonesian Literacy for High School as Alternative Assessment in Covid-19

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Abstract

The outbreak of the coronavirus in Indonesia has made changes in the learning process at home as an effort to prevent transmission of the virus. Learning at home not only provides written assignments that are changed in electronic form, but must also reflect student learning outcomes at home. Likewise, to avoid students' boredness in learning Indonesian Language literacy, researchers try to use literary reading as an alternative. However, to improve literacy skills is not just reading literature for pleasure but also increasing the students' critical power by using an e-project based assessment model in their assessment. The case study approach is used in this study. It describes the use of E-Project-Based Assessment in learning literacy reading Indonesian for senior high school. The E-Project-Based Assessment model can be applied to Indonesian subjects especially on the subject of literacy reading. E-Project-Based assessment is an activity task that includes several competencies that must be completed by the students within a certain period and can use information technology to provide experience for students to use their social media as part of the learning process at home. Students who connect to the digital literacy assessment will have experiences as technology users, technology requesters, and technology producers. Thus, a student's position in this assessment literacy includes functional, critical, and rhetorical literacy. This is following the aim of making students digital creators of literacy.

Keywords:

E-assessment, Indonesian literacy

Paper ID: ICGYSE42

Type: Oral, Abstract

Article topics in the ICGYSEducation: Gifted Education

Effective Classroom Management Qualifications for Teachers of Gifted Students

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Abstract

Gifted students are characterized by high cognitive skills, high learning motivation and creativity, compared to normally developing students. Also, there are some traits that are common in gifted students such as energetic, perfectionism, leadership, asynchronous development, sensitivity, high memory and long attention span. Thus, teachers of gifted students should be aware of the unique properties of gifted and take them into account in classroom management. Unless the teachers manage the classroom effectively, gifted students can show problem behaviors such as opposing authority, difficulty in making friendship, anxiety due to perfectionism, stubbornness, desire to become a leader and self-centeredness due to extreme self-confidence, jealousy, difficulty in accepting mistakes, insisting on not doing unpleasant activities and daydreaming during activities. This study aims to define the effective classroom management qualifications for teachers of gifted students. First of all, for gifted students, a student-centered approach is appropriate. Thus, teachers of gifted students should be democratic such as determining class rules together. Moreover, teachers qualified in gifted education, ensure a positive learning environment by actively incorporating the learners into the learning process, supporting the learning desires of the students and making the learning activities fun. In such an environment, students are less likely to show unwanted behaviors because they enjoy learning.

Keywords:
Gifted, classroom management, teacher, qualifications

Paper ID: ICGYSE43

Type: Oral, Abstract

Article topics in the ICGYSEducation: Gifted Education

Challenges to Gifted Education in the COVID-19 Pandemic from the Perspective of Gifted Students and Parents in Saudi Arabia

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Abstract

For the education of gifted students, the physical distance, quarantine and isolation that COVID-19 has left behind has generated several challenges. The aim of this research was to determine the perspectives of gifted students and their parents regarding distance learning. To evaluate the perspectives of gifted students and their parents, a multiple-choice questionnaire of 30 items was used, with 202 gifted students and 100 parents of gifted children. The results indicate that school closures and isolation have led parents of gifted children to experience a higher psychological burden and more family conflict than normal. In their self-regulated learning, gifted have experienced changes. COVID-19 has also disrupted their daily activities and prevented their free movement, making them feel like they are not doing something important, resulting in adverse effects such as sleep disorders , depression, isolation, frustration, and loss of motivation. Gifted students often have negative online learning perspectives, indicating it as inefficient and lacking in effectiveness and connections. If gifted students are to be encouraged to take part in classes and contribute effectively, it is important that all partners strive for student-centred programs when developing and implementing programs for them that enable active participation with stimulating and intellectually stimulating content that meets the needs of individual learners. COVID-19, gifted, self-regulated learning, student-centred programs.

Keywords:

COVID-19, gifted, self-regulated learning, student-centred programs

Paper ID: ICGYSE44

Type: Oral, Abstract

Article topics in the ICGYSEducation: Leadership Studies

Exploring Perspectives of Thai Educators toward 21st Century Learning and Teaching

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Abstract

The disruptive education may change the nature of learning and learning behaviors of the new generation. 21st century learning is now calling educators to prepare our children to face uncertainty and rapidly changes. The study aims to explore the perspective of Thai educators toward 21st century learning and teaching. The survey method is employed by investigating 41,991 educators who have responsibility or concerns in teaching and learning. Data were collected and analyzed by a statistical package in terms of frequency and percentage. Finding revealed that they perceived 21st century learning and teaching in appropriate ways, but they have a few misunderstandings in the support system and learning environment. Educators should be discussed and prepared both teachers and students in the modern classroom.

Keywords:
Necessary learning skills, educator, perspective

Paper ID: ICGYSE45

Type: Oral, Abstract

Article topics in the ICGYSEducation: Agricultural and Biotechnology Education

Study of Demand for Organic Products of Consumers in Thailand

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Abstract

The objective of this research is to analyze organic agricultural documents. A sample group was farmers in Thailand who had adopted organic farming, such as crop cultivation, animal husbandry, and product processing. The researchers studied problems of organic farming in many aspects to get ideas and to further development for organic farming operation, as well as to understand consumers demand for organic products. The research method was document analysis. The researchers analyzed documents relating to agricultural and consumer demand for organic goods in Thailand. The findings show that 1) consumer demand for agricultural products has changed. Consumers give special importance on eating safe products and taking care of their health by consuming organic products more than before. 2) Farmers who do crop cultivation or animal husbandry have begun to change their farming method to be safer according to the market demand. 3) Famers who could not immediately change from conventional agriculture to organic agriculture have adopted Good Agricultural Practices (GAP) in order to transform to organic farming in the future. 4) Public and private sectors have begun to promote and support organic farming more than before. 5) Today's market has a constant demand for organic products, but the production capacity is not enough to meet the demand. This research is useful as a guideline for those who want to study about organic agriculture, as well as those who want to change their farms to organic farms to support themselves sustainable income.

Keywords:

Organic product, Good Agricultural Practices (GAP)

Paper ID: ICGYSE46

Type: Oral, Fulltext

Article topics in the ICGYSEducation: Gifted Education

Relationship between the Type of Intelligence of Gifted Students and the Power of Geographic Analysis

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Abstract

The aim of this study is to determine the impact of intelligence levels on their attitudes after determining the attitudes of gifted students in science and art centers towards geography. For this purpose, a 25 item, 5 type likert attitude scale was applied to 236 secondary school students enrolled in science and art centers in two randomly selected provinces. At the same time, the average academic achievement of students in the geography course was also reached. The research is in the survey model. T - test and anova test were applied to the data obtained in the study. As a result of the research, the average attitude scores of gifted students towards geography were found to be high. In addition, a significant difference was found in the attitudes of students towards geography course between students who are in cooperation with associations aimed at raising awareness of nature and the environment and students who are independent of these associations. Looking at the relationship between the field in which students' study and geographical education, it was concluded that students who study in the numerical field are more successful than students who study in the verbal field. In other words, it was determined that the attitudes of students with numerical intelligence towards geography were higher than those of students with verbal intelligence. Another variable of the research is the place where we live; it is an effective element in students ' attitudes towards geography. It was found that students living in small districts were more sensitive to nature, but also significantly different from students living in provinces, where their academic success in geography course was equally high. However, there was no significant difference between the students 'grade level and their parents' educational levels and their attitudes towards geography. By looking at the results obtained as a result of the research, the following recommendations can be made. In order to examine attitudes towards geography in a wider and more detailed way, it may be recommended to use in-depth forms of analysis such as large sample groups and meta-analysis..

Keywords:
Geographical education, gifted student, type of intelligence, geographic analysis

Introduction

Each individual has his or her unique characteristics and abilities. These characteristics of the individual are important in shaping his cognitive, affective and psychomotor skills. The concept of intelligence has been interpreted in different ways in the literature by different researchers and research. What is intelligence? There is no definite definition of this subject today. In addition to the lack of a clear definition, there is also an incomplete side in the definitions made. Discussions about what intelligence is have been made for years and are still being held. In 1976, Robinson and Robinson analyzed many theories about intelligence and determined the three most commonly used properties of intelligence based on the information contained in these theories (Patton, Poyne, Beirne-Smith, 1986).

- Learning capacity: the ability of a person to benefit from the education provided.
- The sum of learned knowledge: all the concepts and information that one learns within one's own abilities.
- Ability to comply with the requirements of the environment: the ability to successfully adapt yourself to the environment and the changes observed in the environment.

As can be seen, these characteristics are quite general characteristics and cannot explain what intelligence is. However, it has been known since the periods before Jesus that the differences between individuals were important, and for this purpose individual qualifying exams were conducted (Öner, 1997, p.26).

Intelligence, learning ability, Ability to cope with new situations, abstract reasoning, verbal and mathematical reasoning, such as it is defined in different ways, and intelligence in solving problems or coping with the environment of the definition of the operation constitutes the focus of cognitive processes (Glover, Bruning, 1990, ref. Tetik and Açıkgöz, 2009). Although intelligence is generally defined based on the ability to adapt to one's environment and learn through experience, there are many other definitions (Sternberg & Detterman, 1986, ref. Sternberg, 2005).

After defining intelligence, we mentioned that each person has different types of intelligence. Now let's take a look at these types of intelligence. At the heart of Gardner's theory, which argues that intelligence consists of multiple components, he argues that biological and cultural dimensions are involved. He believes that different types of learning occur in different parts of the brain. In addition to biological factors, it is suggested that intelligence development is related to culture, while the types of intelligence and behaviors that cultures value are more developed. Gardner puts forward four criteria for a feature to be intelligence: it is the presence of symbols, the value of culture, the means to produce goods or services, and the ability to solve problems (Bellanca, 1997).

Gardner's model gave a broader meaning to the question of what intelligence is. Gardner notes that the traditional approach to intelligence is advantageous in terms of the convenience it creates in evaluating the student according to a common criterion, but is not useful in discovering the student's strengths and weaknesses. He suggests that intelligence has eight components that function independently of one, and states that an activity is actually the co-operation of several intelligence components. Gardner (1993) mentions eight types of intelligence in the theory of multiple intelligence. 1. Verbal/linguistic intelligence 2. Logical / mathematical intelligence, 3. Visual / spatial intelligence, 4. Bodily / kinesthetic intelligence, 5. Music / rhythmic intelligence, 6. Social intelligence, 7. Self-conscious intelligence, 8. Naturalist intelligence.

Gardner mentions eight types of intelligence and emphasizes their observable and measurable properties in explaining these intelligences. Morgan (1996), on the other hand, suggests that the types of intelligence proposed by Gardner more qualifies intelligence, rather than creating a different structure, and that the performance of intelligence defined by the theory of multiple intelligence is actually cognitive styles. After looking at the definition and types of intelligence, it makes diagnoses related to geographical analysis skills. A wide range of skills and their applications are needed to use knowledge and make knowledge-based decisions in geography education. For this reason, students should be given five basic questioning skills before moving on to geographical skills acquisition. According to Bednarz (1994), in the study "geography for Life: American National Geography Standards Project, 1994", interrogation skills are considered as a prerequisite for the realization of geographical skills. These interrogation skills are:

- Asking geographic questions
- Achievement geographic knowledge
- Editing geographic information
- Analyzing geographic information
- Answering geographic questions

Measuring the relationship between an individual's ability to power geographic analysis and the type of intelligence is the main problem of this research. Özcağlar (2011, p.2), "according to geography, the interactions between people and the natural environment, and these interactions are developing as a result of activities of the state in the distribution, relationship building, by comparison, searching and viewing by applying various research methods while adhering to the principles of causality, a synthesis of results from many disciplines in sciences which present in the form of a collection". The pedagogical discipline in which this information is applied and the methodology for learning and teaching processes-results is developed is geography education and courses.

There are three major revolutions in the development of civilization. These are, respectively: agricultural, industrial and information-technology revolutions (Toffler, 1981). "With the reduction of the difference in time and space in the lived era, knowledge and its advantages have been a tool that provides superiority. In this context, countries began to invest in information and aimed to educate individuals who could use this information effectively. In particular, the importance of gifted people in certain areas has been noticed by developed countries and these people have started to be supported.

How are these people defined in an environment where gifted people are so important? Then peers and those around her who understands fast-learner, you have a good memory, enhanced imagination, intellectual productivity, creativity, and artistic sense for high-performing, specific academic areas (science, social math, such as extreme sensitive to potential problems, the differentiation difficult problem-solving tasks, leadership and are accepted individuals with characteristics defined as gifted (Ross, 1993, p.26; Heller, 2004, p.308).

Such an education, which will be considered for gifted students, should also be considered as one of the ways to bring important geography theorists to our country in the future, both in the physical and human and political fields (Artvinli et al., 2010, p.64). Thus, geography education becomes more qualified with students who have analytical and critical thinking, who

have spatial, human and economic awareness at the highest level, who synthesize and use geographical knowledge.

These students and assess criteria and methods for assessment are generally as follows: nomination of the teacher and the parents-advice, IQ tests, general and special ability tests, self-assessment forms, portfolios, observation form, and select camps like (Callard and Szulgit, 2010: P.16; Akarsu et al., 2004, p.20; MoNE, 2007).

Method

For this purpose, a 25-item, 5-type likert attitude scale was applied to 236 secondary school students enrolled in science and art centers in two randomly selected provinces. At the same time, the average academic achievement of students in the geography course was also reached. The research is in the descriptive screening model. T - test and ANOVA test were applied to the data obtained in the study. In the study, the reliability coefficient was found to be 0.94 for the entire test. The reliability coefficient of the scale for this study was recalculated. It was found to be 81.

Results

As a result of the research, the average attitude scores of gifted students towards geography were found to be high. In addition, a significant difference was found in the attitudes of students towards geography course between students who are in cooperation with associations aimed at raising awareness of nature and the environment and students who are independent of these associations.

Looking at the relationship between the field in which students' study and geography education, it was concluded that students who study in the numerical field are more successful than students who study in the verbal field. In other words, it was determined that the attitudes of students with numerical intelligence towards geography were higher than those of students with verbal intelligence.

Recommendations

Another variable of the research is the place where we live; it is an effective element in students ' attitudes towards geography. It was found that students living in small districts were more sensitive to nature, but also significantly different from students living in provinces, where their academic success in geography course was equally high. However, there was no significant difference between the students 'grade level and their parents' educational levels and their attitudes towards geography.

By looking at the results obtained as a result of the research, the following recommendations can be made. In order to examine attitudes towards geography in a wider and more detailed way, it may be recommended to use in-depth forms of analysis such as large sample groups and meta-analysis.

References

Akarsu, F., Toğros, A., Yakmacı G. B., Şirin, M.R. (2004). *Outstanding and specially gifted children preliminary report on policy recommendations*, İstanbul: children's Foundation publications.

Artvinli, E., Gülüm, K. and Çoşkun, S. (2010). Trends of gifted students against geography course, *International Journal of Social Research, 3*(14), 62-69

Bednarz, S. (1994). *Texas A&M University, Members of the Geography Education Standards Project*, 1994.

Bellanca, J. (1997). *Active Learning Handbook for Multiple Intelligence Classrooms*. USA: IRI/Skylight Training and Publishing Inc., 1-465.

Callard-Szulgit, R. (2010). Parenting and teaching the gifted. Lanham, MD: Rowman & Littlefield Education

Heller, K. A. (2004). İdentification of gifted and talented students. *Psychology Science, 46*(3), 302- 323.

MoNE (2007). *Science and arts centers directive.* Ankara, Turkey.

Morgan, H. (1996). An Analysis of Gardener's Theory of Multiple Intelligence. *Roeper Review, 18*(4), 263-270.

Öner, N. (1997). *Psychological tests used in Turkey. A reference source*. Boğaziçi University Press: İstanbul.

Özçağlar, A., (2011). *Introduction to Geography* (6. Printing). Ankara: Ümit Offset Printing.

Patton, U. R. , Poyne, J. S. , Beirne-Smith, M. (1986). *Mental retardation*.

Ross, P. (Ed.). (1993). *National Excellence: A Case for Developing America's Talent*. Washington, DC: U.S. Department of Education.

Sternberg, R.J. (2005). *A Triarchic View of Giftedness: Theory and Practice*. (Ed. Colangelo, N. ve Davis, G. A). Handbook of Gifted Education. 43-53. Boston: Allyn and Bacon.

Tetik, S. and Açıkgöz, A. (2013). The Effect of Emotional Intelligence Levels On Problem Solving: An Application On Vocational School Students. *Electronic Journal of Vocational Colleges*- December 2013, Umyos Special Issue, 87-97.

Toffler, A. (1981). *The Third Wave* (Translator: Ali Seden), İstanbul: Altın Kitaplar

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Article topics in the ICGYSEducation: Gifted Education

IQ Levels in Geography of Preschool Students Multiple Intelligence Types

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Abstract

The aim of this study is to conduct a geographical analysis of the responses of children with IQ levels in early childhood to geography questions on the test. The problem phrase of the study is: "what is the effect of the responses of children whose IQ levels were detected in early childhood on the types of intelligence on the geography questions in the test?"designated as. In this way, children's answers to geography questions will be examined according to their intelligence types. Various research variables (Verbal (Linguistic) Intelligence, Logical (Mathematical) Intelligence Visual (Spatial) Intelligence, Bodily Kinesthetic) Intelligence, Musical (Rhythmic) Intelligence, Personal (Internal) Intelligence, Interpersonal (Social) intelligence in nature (Existential) Intelligence) are discussed in terms of. Geography students according to their responses on the questions of several variables (Verbal (Linguistic) Intelligence, Logical (Mathematical) Intelligence Visual (Spatial) Intelligence, Bodily Kinesthetic) Intelligence, Musical (Rhythmic) Intelligence, Personal (Internal) Intelligence, Interpersonal (Social) intelligence in nature (Existential) were investigated. In the study, quantitative research method was adopted to determine the perception of students with different intelligence types towards geography questions included in IQ test. At the same time, the correlational survey model was used as a research pattern. In the 2018-2019 academic year, students studying at school in Manisa and İzmir province constitute the universe of the research. The sample of the study consists of 327 five-year-old preschoolers whose intelligence level is considered 130 and above, who underwent the Wisc-R IQ test from students receiving preschool education in Manisa and Izmir, as well as the intelligence test developed by Glenn Wilson and Dianna Grylls. Looking at the results of the research, it was found that the geography questions contained in the IQ test were answered correctly by children with high mathematical and visual intelligence. Since the multidimensionality of both intelligence and learning will always change between different age groups, it is recommended that regular periods in early childhood and the sustainability of these tests be observed on a particular group and followed up until the undergraduate period and beyond.

Keywords:
Types of intelligence, IQ levels, preschool students, level of geography.

Introduction

It can be said that with the development of intelligence tests at the beginning of the twentieth century, research on gifted talent gained momentum. During this period, it is seen that gifted individuals who score quite high in intelligence tests in mathematics and science stand out more than gifted individuals who stand out from their peers in visual and performance areas such as painting, music, sports.

In Europe by the middle of the twentieth century, Piaget, Vygotsky, Dabrowski scientists like the scope of intelligence: mental, emotional, social, artistic, moral, and language-related skills from a developmental perspective and a holistic perspective based on topicality has begun to lose with the introduction of intelligence tests in the evaluation (Akarsu, 2001).

In the historical process, the control of Terman (1925), in standard intelligence tests top %1-3 fields at the border points, "gifted" refers to the definition that, starting from the federal government's policy relating to gifted and gifted of America is prepared in order to determine the Marland report (1972) "general intellectual ability, specific academic and special skill in a field, creative and productive thinking, leadership ability, talent in visual art, performance, psycho-motor skill in children who display outstanding performance on one or more of these six areas" as it is stated; then Renzulli (1998) stated that talent is a force arising from the combination of creativity and motivation; with Gardner (1983, 1991) putting forward the theory of multiple intelligence, it seems that the concepts of intelligence and ability are intertwined, with the view that intelligence consists of many abilities coming to the fore.

One of the current definitions reflecting this view has been made by the National Association for Gifted Children (NAGC) in America. In this definition, gifted individuals are indicated as individuals who demonstrate higher-than-expected reasoning and learning skills, recording success/performance at the top 10% compared to their peers in one or more areas.

The field in question can be a field with its own symbol system (such as mathematics, music, language) and/or a sequence of sensory-motor skills (such as painting, dance, sports) (NAGC, 2011). As a result, it seems that not only is it not enough to have a certain mental potential for gifted talent, but it is also necessary to have characteristics such as creativity, memory and motivation, and they should be evaluated together.

Considering the developmental importance of early childhood, Morelock's definition, which draws attention to the differences in the development of gifted children, is very important in this regard. According to Morelock (1992), "supremacy is asynchronous (asynchronous) development, which reveals internal experiences that differ in quality and quantity from normal standards, and includes advanced cognitive abilities. "The meaning of the nonconformity mentioned here is nonconformity in both cases, internal and external.

According to Morelock (1992), incompatible development means that the cognitive development of gifted children is faster than their physical and emotional development, which leads to some interesting problems. For example, let's assume that a five-year-old is trying to make a horse out of clay with the imagination of a seven-year-old. It is almost impossible for this child to perform his dream horse using the physical characteristics of five years old. In the face of this situation, the child will be disappointed that he or she cannot produce the product he or she wants and will be able to enter into temper tantrums or crying crises.

In this example, it is seen that motor skills cannot reach the speed and level of the child's cognitive skills. This child may also be able to communicate with adults like a 12-year-old and not be able to share their toys with friends like a two-year-old. Based on this example, it would

be appropriate to say that gifted children have multiple age characteristics. This complicates the development and educational support of gifted children.

It is vital that gifted children are diagnosed early and start early education, just like other children who require special education, so that they can use their potential at the highest level. For this reason, although their simultaneous development makes it difficult for them to be noticed by their family and teachers, knowing and observing the basic characteristics of gifted talent is very valuable in terms of early detection of these children.

People perceive the environment in which they are located in accordance with their physical and social effects and create representations of these environments in their minds through the information they receive. Through representations, the environments in which they are located gain meaning, become familiar, and thus these environments are distinguished from others. Spatial perception is the ability of a person to accurately perceive the visual and spatial world, such as a hunter, scout, or guide, or to apply different shapes to impressions obtained from the outside world, such as a decorator, architect, or painter (Şaban, 2000).

Children with exceptional spatial ability can be observed playing complex chess games, creating elaborate lego structures, focusing perfectly on drawings, willingly solving puzzles. These children have graphic memory and are able to distinguish small visual changes. It is possible to observe this ability in architects, graphic designers, designers, industrial designers, painters and sculptors (Smutny, 2000).

Childhood has different stages of development and related requirements than other age periods, and the individual acquires their basic achievements during this period. Therefore, developmental characteristics and requirements of this period should be taken into account in physical environments designed for children (Çukur and Delice, 2011).

In Ottoman schools, each child was evaluated according to his or her interests and abilities and educated according to him or her. Not all students were given the same lessons. And on the wall of the school, it said that no fish is forced to fly, no bird is forced to swim.

The aim of this study is to conduct a geographical analysis of the responses of children with IQ levels in early childhood to geography questions on the test. The problem phrase of the study is: "what is the effect of the responses of children whose IQ levels were detected in early childhood on the types of intelligence on the geography questions in the test?" designated as.

In this way, children's answers to geography questions will be examined according to their intelligence types. Various research variables (Verbal (Linguistic) Intelligence, Logical (Mathematical) Intelligence Visual (Spatial) Intelligence, Bodily Kinesthetic) Intelligence, Musical (Rhythmic) Intelligence, Personal (Internal) Intelligence, Interpersonal (Social) intelligence in nature (Existential) Intelligence) are discussed in terms of.

Geography students according to their responses on the questions of several variables (Verbal (Linguistic) Intelligence, Logical (Mathematical) Intelligence Visual (Spatial) Intelligence, Bodily Kinesthetic) Intelligence, Musical (Rhythmic) Intelligence, Personal (Internal) Intelligence, Interpersonal (Social) intelligence in nature (Existential) were investigated.

Method

In the study, quantitative research method was adopted to determine the perception of students with different intelligence types towards geography questions included in IQ test. At

the same time, the correlational survey model was used as a research pattern. In the 2018-2019 academic year, students studying at school in Manisa and İzmir province constitute the universe of the research. The sample of the study consists of 327, 5-year-old preschool students whose intelligence level is considered 130 and above, who were given the Wisc-R IQ test from students receiving preschool education in Manisa and İzmir, as well as the intelligence test developed by Glenn Wilson and Dianna Grylls.

Results

Looking at the results of the research, it was found that the geography questions contained in the IQ test were answered correctly by children with high mathematical and visual intelligence. Since the multidimensionality of both intelligence and learning will always change between different age groups, it is recommended that regular periods in early childhood and the sustainability of these tests be observed on a particular group and followed up until the undergraduate period and beyond.

Arslanyolu (2010, p. 58), except for the field of verbal intelligence of Primary School students; mathematical-logical intelligence, visual-spatial intelligence, musical intelligence, bodily-kinesthetic intelligence, social intelligence, internal intelligence and naturalistic intelligence it found that the level of their field had a positive effect on attitudes towards the environment.

Kahyaoğlu (2013, p. 74-75) in his research, secondary school students ' verbal-language and musical intelligence and environmental a significant difference between other areas of intelligence where there is a significant difference between their attitudes and their environmental attitudes, she/he found that there is no difference. According to Baş (2010, p. 53-74) teaching method based on multiple intelligence theory to examine the impact of Primary School students on environmental awareness, attitudes and knowledge levels; 2009-2010 In the academic year, it conducted experimental studies with the participation of 60 students. Research experiment students in the group with a teaching method based on multiple intelligence theory, and students in the control group with a learning method based on multiple intelligence theory environmental education programs prepared by traditional teaching methods were implemented. Research result, environmental awareness, attitudes and knowledge of students of the teaching method based on multiple intelligence theory
it has shown that its levels are more effective than the traditional method.

Bodily-kinesthetic intelligence is the ability to express oneself using an individual's body. Advanced individuals in this field of intelligence; like to use hand skills, learn by touching and moving (Kansu, 2012, p.14).

Because children whose visual spatial intelligence is dominant correctly perceive their environment (Armstrong, 2009, p. 75) may have more experience and knowledge about their environment.

Recommendations

Looking at the findings obtained as a result of this study, it was observed that children with high visual perception and high mathematical perception power answered geography questions more easily and accurately.

In this direction, parents and educators can be given the following recommendations, based on the scientific fact that the types and levels of intelligence of children develop until puberty.

Finding an object stored at home with children, creating a treasure map, they can increase children's curiosity by playing games such as Hide and seek, they can support their discovery and problem-solving skills. Parents give their children visual written materials such as books, magazines, newspapers by reading, children examine visual materials, children's visual matching and distinguishing skills and visual attention and memory the enhancements may provide. They can also turn to games that will support their mathematical skills to contribute to their IQ levels.

Children with this age level have visual perception skills, academic, language, motor it is an education that supports school maturity with its social development. Your children visual perception of the educator so that they can make the most of this training he must have sufficient knowledge about his education. Education Visual perception training in in-service trainings organized by the ministry can be cited. Educator's knowledge and awareness of this issue; better than technology visual perception training programs and materials to benefit to provide better educational opportunities for children she/he can provide.

References

Akarsu, F. (2001). *Gifted and talented children*. Ankara: Eduser.

Armstrong, T. (2009). *Multiple intelligences in the classroom*. Alexandria: ASCD.

Arslanyolu, K. (2010). *Examination of the attitudes of Primary School students towards the environment according to the theory of multiple intelligence* (unpublished master's thesis). Erzincan University Institute of Social Sciences, Ankara.

Baş, G. (2010). The effects of multiple intelligences instructional strategy on the environmental awareness knowledge and environmental attitude levels of elementary students in science course. *International Electronic Journal of Environmental Education, 1*(1), 53-80.

Çukur, D., Delice, E. (2011). Appropriate space and design for the development of visual perception in early childhood. *Journal of Family and Society, 12*(7), issue: 24, 25-37.

Gardner, H. (1983). *Frames of mind*. New York: Basic.

Gardner, H. (1991). *The unschooled mind: How children think and how schools should teach*. New York: Basic.

Kahyaoğlu, M. (2013). Assessment of the relationship between the intelligence areas of secondary education students and their attitude towards the environment. *Ankara University Journal of The Faculty of Educational Sciences, 46*(2), 159-178.

Kansu, N. (2012). *I'm in nature with my child: I'm developing my child's fields of intelligence*. Ankara: Elma, printing office.

Marland, S. (1972). *The education of the gifted and talented. Washington D.C.: Government Printing Office.*

Morelock, M. (1992). Giftedness: The view from within. *Understanding Our Gifted, 4*(3), 11- 15.

National Association for Gifted Children [NAGC]. (2011). *State of the states in gifted education: national policy and practice data 2010-2011*. Washington, DC: National Association for Gifted Children.

Renzulli, J.S. (1998). *Three ring conception of giftedness*. S.M. Baum, S.M. Reis & L.R. Maxfield (Ed.), Nurturing the gifts and talents of primary grade students (p.2-13).

Smutny, J. F. (2000). *Teaching Young Gifted Children in The Regular Classroom.* Eric Clearinghouse on Disabilities and Gifted Education Reston VA.

Şaban, A. (2000). *Learning-teaching process: new theories and approaches*, Ankara: Nobel Publishing.

Terman, L.M. (1925). *Mental and physical traits of a thousand gifted children:* genetic studies of genius. California: Standfort up.

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Type: Oral, Abstract

Article topics in the ICGYSEducation: Entrepreneurship Education

Integrative Entrepreneurship Learning Design in Improving Human Capital in Students' Entrepreneurship in Indonesia Islamic Higher Education

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Abstract

This study aims to explore the problems and needs of entrepreneurship courses at Indonesia State Islamic Higher Education. By using a qualitative approach, primary and secondary data types. The population of the institutions in this study are using purposive sampling technique, three institutions are used as the research samples. Interview techniques are used to get an overview of their obstacles. The interview is represented by the head of the study program to obtain the policies of curriculum development. The secondary data, namely content, competence, learning methods, and materials are obtained from the content analysis as a reflection of the curriculum. The result of this study is there are different designs among institutions. From the analysis of the RPS content can be concluded that (1) the entrepreneurship course only focuses on providing insights and changing the student's mindset towards entrepreneurship; (2) equip entrepreneurial skills and entrepreneurial practice (3) at the study program level, non-college entrepreneurship activities are highly dependent on the willingness (5) Not all study programs provide support activities for entrepreneurship courses. Entrepreneurship learning is emphasized on the internalization of knowledge, the human capital, the formation of skills and attitudes. The general stages can be designed as follows: (1) The entrepreneurial mindset planting stage, (2) the business experience stage, (3) the start-up business stage, (4) the business development stage.

Keywords:
Entrepreneurship, learning design, and human capital

Paper ID: ICGYSE49

Type: Oral, Abstract

Article topics in the ICGYSEducation: Leadership Studies

Development of A Quality Management System Through Risk-Based Thinking in Higher Education

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Abstract

Risk is an uncertainty that causes loss for an organization, in terms of both reputation and incompatibility between product and its specified standard. This research is conducted in Ponorogo State Islamic Institute (IAIN Ponorogo), focusing on the risks occurring and the way to overcome the risks by implementing risk-based thinking (RBT) in Quality Management System in Ponorogo State Islamic Institute (IAIN Ponorogo). This research uses qualitative methods, and data collection was done by observation of participation at the implementation programs, interviews, focus group sessions, and analysis of documents. The results show that the risks occur in the aspects of planning, service, performance, management, and budget that give further implication for the reputation of the study program. The implementation of RBT through review and assessment, as well as program improvement done by the study program of Ponorogo State Islamic Institute (IAIN Ponorogo) can successfully identify the risks and play a role as a preventive action in maintaining the quality of the study program. Risk-based thinking has become a way of thinking that is always used by the managers of the study program in decision making by paying attention to any risks.

Keywords:

Risk-based thinking, quality management systems, risk, auditing, standards

Paper ID: ICGYSE50

Type: Oral, Fulltext

Article topics in the ICGYSEducation: Gifted Education

Comparison of IQ Test Geography Questions with Geography Curriculum for MoNE Special Talents

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Abstract

The aim of this study is to compare the geography course curriculum developed by MONE for special talents in 2019 with questions that also measure geographical skills in IQ tests. For this purpose, 52 geography questions included in the IQ test were examined. These questions are divided into sub-dimensions of verbal, grouping, observation and scientific understanding for the types of intelligence included in the content of the test. The test, divided into sub-dimensions, was compared with the geographical skills included in the geography course curriculum. For example, it was determined that the students who answered the questions in the lower dimension of scientific understanding correctly had the ability to draw and interpret tables, graphs and diagrams, map literacy skills and position analysis skills. The geography course curriculum, developed for especially talented individuals, also needs to find an application area in order to be successful in the learning and teaching process in connection with the course content. For this reason, teachers who will work with especially talented individuals should also support their lessons with activities that will meet the capacities of these students.

Keywords:
MONE, geography curriculum, IQ test, special talents, geography questions.

Introduction

The most well-known definition of intelligence is Boring's 1923 definition. According to this definition, "intelligence is what intelligence tests measure". Although Boring could not illuminate many things about intelligence with this narrow definition, it led scientists interested in this field to investigate what intelligence really is (Sternberg, 2003).

In research related to intelligence, intelligence is considered in a narrow dimension, while new research has considered intelligence in a wide dimension. Gardner challenged the idea that a person has intelligence at birth and cannot know how much of that intelligence can be used, but how intelligent he is can be determined by test results, which exist in the traditional understanding of intelligence with The Theory of multiple intelligence. According to Gardner

(1985), intelligence is "the ability of a person to produce a product that finds value in one or more cultures, or to effectively and efficiently solve a problem that they face in their daily or professional life."

Who's the gifted child?

According to Ataman (2003), gifted children are hungry for knowledge because their learning rates are very high compared to their peers. They constantly try to learn about the environment and the world in which they live. Some want to learn about everything, while others can jump from one topic to another, such as a grasshopper, or from one area of interest to another.

Special education programs are also needed for these children when they are considered as gifted children. The aim of this study is to compare the geography course curriculum developed by MoNE for special talents in 2019 with questions that also measure geographical skills in IQ tests.

The field of education of specially gifted students has emerged as a new discipline with its own teaching identity in the field of Education under the leadership of scientific studies conducted in the last century. The unique social value of special abilities has undoubtedly been a bearing force in the emergence of this identity. The original differentiation of special educational programs developed for these students from general educational programs has also contributed to this.

As a result of the lack of general educational programs in various aspects of the education of especially talented students, the loss of talent in primary and secondary school years has formed the main reason for the development of special educational models and special educational programs for these students around the world. The idea that a standard program developed for specially gifted students would be sufficient to meet the development needs of these students has been the main hypothesis of all these programs.

With the geography course curriculum, individuals who recognize their place, country, world and universe, question life with its physical and human elements, identify problems in life at different spatial scales and produce solutions, and are at peace with nature are wanted to be raised. Educating especially talented students with a curriculum suitable for their physical, psychological development and Individual Differences is of great importance for building a more livable world in the future. Based on the fact that" no student in education can be sacrificed", the good education of each especially talented student is of strategic importance for the future of countries. Designed for gifted students, this instructional program of growing problems in the world with increasingly complex and advanced thinking skills, advanced problem solving, social peace and security, supporting scientific and technological developments aimed to educate individuals in the field of responsibility in the development of the country.

Rapidly increasing technological developments, especially changes in the areas of information and communication, have increased local, regional-flood, national and global interactions. In this sense, "time-space Convergence" is experienced, as expressed in some geographical studies. Local, regional, national and global interactions are not only in terms of human processes, but also in terms of natural processes. Today, geographic information is used more intensively in daily life. For example, environmental problems occurring anywhere in the world can feel their impact in many places on different scales.

Taking into account these interactions and changes in natural and human processes at different spatial scales, the geography course curriculum has been updated. In the process of updating the program, integrity in the transition from middle school to secondary school is reinforced in the light of current developments for the area, the units and the gains revised acquisition unit and made changes where it's needed in places in the rankings, and is intended to respond to the educational needs of gifted students.

The emphasis has been increased on the use of information and communication technologies in all areas of our lives in geography teaching and the relationship of achievements with daily life. Students with geography curriculum;

- Conducting research using basic concepts, theories and research methods of geography science and reporting its results,
- Gaining geographical skills within the framework of human-nature relationship,
- Associating the basic elements of the universe with life, anticipating the work that can be done on space geography,
- Comprehend the functioning and change of natural and human systems, produce foresight about what can happen in the future,
- Mean spatial values that belong to the country and the world from nearby and ownership of these values to develop awareness of values and to establish a relationship between the basic concepts and issues of geography,
- Attainment awareness of responsibility for the functioning of the ecosystem, play a role in solving problems in ecosystems,
- Understand the importance of spatial planning for the harmonious coexistence and continuity of nature and human and make spatial planning,
- Develop "saving awareness" in the use of natural and human resources, put forward creative ideas for effective and efficient use of natural and human resources,
- Understand the functioning of natural and human systems in local and global interaction, explore problems and develop strategies for solving them,
- Understanding the importance of harmonizing development processes with nature and making new proposals, develop interdisciplinary applications for ways to protect and take precautions by evaluating natural disasters and environmental problems,
- Understanding the role of environmental, cultural, political and economic organizations active at regional and global levels in international relations, making proposals to increase the role of Turkey in international relations,
- Understanding the characteristics of Turkey's position in terms of regional and global relations, realizing the potential that its country has, working to develop this potential,
- Understanding the importance of having geographical information in gaining "Homeland consciousness", seeing that patriotism is associated with knowing, loving and serving your country,
- In accordance with Turkey's new vision, it is aimed to have information about developed and developing countries in the world, especially the regions and countries with close relations with Turkey, and to be able to make recommendations for improving their relations.

Method

The questions in the test were examined with the document review technique, which is one of the qualitative research methods. For this purpose, 52 geography questions included in the

IQ test were examined. These questions are divided into sub-dimensions of verbal, grouping, observation and scientific understanding for the types of intelligence included in the content of the test. The test, divided into sub-dimensions, was compared with the geographical skills included in the geography course curriculum.

Results

It was determined that the students who answered the questions in the lower dimension of scientific understanding correctly had the ability to draw and interpret tables, graphs and diagrams, map literacy skills and position analysis skills.

The creative child should be rewarded. Your children very few become artists when they grow up. From a good student to an ordinary artist as it may be, a well-trained creator comes out. In the program implemented from this point of view studies that integrate geometry and art with different activities she/he also developed his ability, also, creativity in the work Davaslıgil (2004b)

She/he said that various disciplines should be integrated into the field of study in order to develop. Processed subjects include History, Geography, Turkish, literature, mathematics, music, painting, etc. it should be addressed in terms of disciplines.

Can Yaşar and Aral (2011) " six years Socio-economic level and parents to their children's Creative Thinking Skills Study of the impact of learning levels " by Urban and Jellen (1996) creative thinking Test-drawing product they found a significant association between level and education. This finding is Sıdar's (2011) problem solving with the creativity of gifted students with the findings of his study on the study of the relationship between skills it contradicts.

Looking at the results of the study, it can be said that in parallel with the correct answers to geography questions of gifted children, their visual intelligence is also high in direct proportion. In the field, research has shown that children most enjoy painting and communicate more closely with the researcher, with this they have shown that together they participate in the research process without any pressure (Barraza, 1999; Dove, Everett, and Preece, 1999). Children usually they establish the connection between their own world of mind and the outside world through painting. The painting is a product of the child's own feelings and thoughts it is very important to get to know the child in particular. Because the child is verbally expressed, she/he can explain many concepts through painting. In other words, painting making offers the child the opportunity to express himself (Çakır İlhan, 1995). Because pictures not only describe a moment and a situation, but sometimes a it tells and visualizes the story (Minkoff and Riley, 2011).

In their work "designing spaces suitable for the development of visual perception in early childhood", Çukur and Delice (2011) focused on the need to design spaces suitable for the development of visual perception that will meet the changing needs of children, support their multifaceted development with various stimuli.

If the environment in which human behavior is based has a natural and mutual effect, it is also for geography, a science focused on the topic of human-environmental relations "spatial perception" is undoubtedly the main research topic (Özgüç & Tümertekin, 2000) because the science of geography is a result of the interaction of human and space.

Recommendations

The geography course curriculum, developed for especially talented individuals, also needs to find a place of application in order to succeed in the learning and teaching process, in

connection with the course content. For this reason, teachers who will work with especially talented individuals should also support their lessons with activities that will meet the capacities of these students.

Effective teacher training process, teacher candidates in the future be trained in the teaching methods that they will use in their class's references. Place creative thinking development activities in educational programs teachers can easily apply creativity in their classes in order to receive in-service training.

In order to evaluate the achievements of students at different levels, free themselves rather than simply applying multiple choice tests assessment methods that they can express should be used. Creative learning to measure level gains in creating features media and evaluation techniques should be used.

References

Ataman, A. (2003). *Children with Special Needs and Introduction to Special Education*, Ankara: Gündüz Publishing.

Barraza, L. (1999). Children's drawing about the environment. *Environmental Education Research 5*(1), 49-66.

Can Yaşar, M., & Aral, N. (2011). Examination of the impact of socio-economic level and parental learning level on creative thinking skills of six-year-olds. *Theoretical Educational Science, 4*(1), 137-145.

Çakır İlhan, A.Ç. (1995). Place of painting course in preschool education programs. *Anatolian Art, 4,* 57-65.

Çukur, D., Delice, E. (2011). Appropriate space and design for the development of visual perception in early childhood. *Journal of family and Society, 12*(7), 25-37.

Davaslıgil, Ü. (2004b). *Differentiated Education Program to Be Applied to Gifted Children in Early Childhood. Book of selected articles on Gifted Children* (p. 289-301). İstanbul: Children's Foundation Publications.

Dove, J.E, Everett, L. A., Preece, F.W. (1999). Exploring a hydrological concept thought children's drawing. *International Journal of Science Education, 21*(5),485-497

Gardner, H. (1985). Frames of Mind: The Theory of Multiple Intelligence. Second Edition. London: Fontana Pres.

Minkoff, Y., Riley, J. (2011). Perspectives of time-use: Exploring the use of drawings, interviews and rating- scales with children aged 6-7 years. *Journal of Occupational Science, 18*(4), 306-321.

Özgüç, N., Tümertekin, E. (2000). *Human Geography (Human, Culture, Space)*. İstanbul: Çantay Bookstore

Sıdar, R. (2011). *Effect of Creativity on Problem Solving Skills of Students Studying In Science Art Center*. Unpublished Master's Thesis, Niğde University, Institute of Social Sciences, Niğde.

Sternberg, R.J. (2003). *Wisdom, Intelligence and Creativity Synthesized*. New York: Cambridge University Press

Urban, K. K. & Jellen, H. G. (1996). *Test for Creative Thinking Drawing Production (TCT-DP) Manual*. Frankfurt: Swets Test Services.

Paper ID: ICGYSE51

Type: Oral, Abstract

Article topics in the ICGYSEducation: Agriculture and Biotechnology Education

A Need for the Development of Teachers Profession Competency of Agriculture Teacher Training Students in Surin Rajabhat University, Thailand

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Abstract

Teacher professional training is an important process for teacher production. This is because it is a practice in the actual situation and a lot of things can be learned there. Thus, educational institutes producing teachers try to encourage teacher students to apply what they have learned in the classroom to their actual teaching. Also, practicum teaching aims to make teacher students understand the roles of the teacher, correct and appropriate techniques, approaches, and methods of teaching. Importantly, they will have a chance to work with school administrators, teachers, and supporting staff and can learn from them at the same time. As a matter of fact, higher education institutes producing teachers put the importance of experience in the teaching profession for effective teaching in the future. However, the process of teacher professional development needs to develop readiness in various aspects of the teacher. In other words, competency is a basic characteristic of an individual which has a relationship with effective work performance. Needs for developing additional competency of the teacher profession comprises 5 aspects as follows: 1) communicative capability; 2) critical thinking; 3) problem-solving; 4) life skills; and 5) technology using. All of these are essential to develop teacher students and it can be a guideline for practicum teaching or teaching in the actual situation.

Keywords:

Teacher profession competency, Agriculture teacher training students, Teaching media, Agricultural education

Paper ID: ICGYSE52

Type: Oral, Fulltext

Article topics in the ICGYSEducation: Mathematic Education

The Opinions of Pre-Service Elementary Teachers on MEAs as a Strategy for Recognizing and Differentiating Gifted Students

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Abstract

The purpose of this study, to investigate the opinions of preservice teachers about the use of Model Eliciting Activities (MEAs) as a recognition and differentiation tool for gifted students. The case study design of the qualitative method was conducted. MEAs were applied to 37 preservice elementary teachers who were the last term on their education participated in the research within the scope of the inclusion course. The information was given on curriculum differentiation strategies (MEAs as a differentiation strategy) and MEAs were applied. At the end of the term, the opinions of the teacher candidates were asked by open-ended questions. All answers were coded and categorized for descriptive analysis. The preservice teachers stated that they would prefer mathematical modeling activities as differentiation activities. Most of Pre-service teachers (%87) are aware that MEAs supports mathematical creativity/ability. However, it has been observed that some of the pre-service teachers are hesitant that they can reveal different thinking levels of students with these activities.

Keywords:

Model Eliciting Activities, Differentiation, Gifted Students, Identification

Introduction

The majority of gifted students study in general education classes. It is among the responsibilities of teachers to recognize gifted students studying in general education classrooms and / or to plan education for gifted students studying as mainstreaming students. However, these are not that easy. It is an issue that teachers often have difficulty in organizing the curriculum for the gifted. There is a need for methods and strategies that can appeal to all students in general education classrooms where both gifted and non-gifted students are present. One of the methods used in this process is differentiation. In classrooms where mathematical modeling activities are applied, it is possible to support both gifted and non-gifted students, while at the same time, it is possible to support the higher-level thinking skills, mathematical abilities and mathematical creativity of gifted students.

Model and modeling emerges as an important field of education, training, research and a new perspective in recent mathematics education. However, the concepts used in this new

perspective cause confusion due to their new and different uses. In this context, it would be meaningful to include the meanings of the basic concepts related to this approach, which will take an important place in the research. Modeling is the process of modeling and mathematizing a problematic situation. The model is the product at the end of this process. Models are seen as the whole of the conceptual structures formed in the human mind and the expressing traces of these structures (representations, expressions, etc.) in order to understand mixed systems (Lesh & Doerr, 2003). In general, the model is understood as a concept that includes mental representations.

Lesh and Doerr (2003), one of the pioneers of the modeling approach in mathematics education, used the concept of "model creation activities / modeling activities" (model-eliciting activities), which includes both mathematical model and modeling terms in terms of meaning. Modeling activities are problem-solving activities in which students make inferences from meaningful real-life situations, expand these inferences by mathematizing them, and rearrange these mathematized structures repeatedly (Lesh & Lehrer, 2003). In summary, mathematical modeling activities are mathematicalization of problem situations involving real life situations by students working in small groups in the classroom (Doruk & Umay, 2010; Lesh et al., 2000).

Modeling activities differ from short-answer problems in that they include shared, manipulated, interchangeable and reusable conceptual tools (eg models) to construct, explain, manipulate, predict and control mathematically important systems. Therefore, the definitions and explanations made by the students in the process are the most important components that give clues about the mental processes they use to find the "answer". That is, modeling activities are process oriented (Lesh & Doerr; 2003). In a well-designed modeling activity, the process not only provides learning, but also produces observable traces that reveal what students learn and their mental processes as a by-product of this learning. Therefore, model-eliciting activities are generally thought of as thought-generating activities (Carpenter and Fennema, 1992, Lesh et al., 2000). For this reason, these activities can be used as powerful tools for teachers and researchers to evaluate student achievements that cannot be measured with standard tests (Lamon, 2003; Lesh & Lamon cited in 1992, Doruk& Umay 2010). These activities help teachers and researchers to understand and observe their students' thinking styles and cognitive processes (Lesh & Doerr, 2003). Mathematical skills are a process that takes place in the human mind, like all other cognitive processes. Therefore, modeling activities can be considered as tools that can be used to search for traces of students 'mathematical thinking skills (Amit & Gilat, 2012; Chamberlin & Moon, 2005; Coxbill et al., 2013), as well as to differentiate students' teaching processes. In this study, the opinions of prospective classroom teachers about the use of mathematical modeling activities in mathematics lessons in regular education classes as a recognition (the front step of identification) and differentiation tool for gifted students in the field of mathematics were investigated.

Methodology

Research Design

The purpose of this case study is to examine the opinions of preservice elementary teachers on mathematical modeling activities as a differentiation and identification tool. For this purpose, this research is structured in the case study model, one of the qualitative research designs. Case study studies are studies aimed at gaining in-depth knowledge on the basis of

a specific case (Creswell 2013). In this context, it was focused on examining the opinions of the classroom teacher candidates.

Participants

Students who graduate from the elementary school teaching program start working directly as classroom teachers. In this research, the last year students were studied in the 2018-2019 academic year. Primary school students take special education lessons in the first semester in the 4th grade. In the second semester, they take an inclusive course. In this study, special education students and students who have information about their specialties and who have successfully passed this course and enrolled in the mainstreaming course were studied. At this stage, it was conducted with 37 teacher candidates who volunteered to participate in the study.

Data Collection and Analysis

Different teaching strategies about gifted students were taught within the scope of mainstreaming course. Then, mathematical modeling activities as a differentiation strategy were applied in the classroom for three weeks and detailed information was given about the modeling activities. At the end of the course, data were collected from 37 voluntary teacher candidates using a semi-structured interview form. Four questions were asked to the pre-service teachers, in which they were first asked to evaluate the modeling activities and then evaluate the modeling activity as a noticing activity. In the following questions, they were asked to evaluate these activities as differentiation activities. Then all the answers of the teacher candidates were listed. It was coded by the researchers on the basis of descriptive analysis.

Findings

The questions asked on the basis of the mathematical modeling activities of the pre-service teachers were examined under three main headings. Basic opinions about modeling activities, opinions about noticing activities, opinions about modeling activities as differentiation activities. In this context, all data will be presented in the order given above.

General Opinions

When the general opinions of teacher candidates about mathematical modeling activities are examined, the following table is encountered.

Table 1.

General Opinions of Teacher Candidates about Mathematical Modeling Activities

Themes	Codes	F
Constructivism / Student-Centered	Student active, new trends on education, understanding the context	10
Creativity	Multi-solution problems /Finding different solutions/ Different ideas	14
Difficult and complex activities	Challenging Problems / Difficult/ Complexity/ Captious	8
Real life problem	Daily life Problems/ Real Life Problems/ Stem	4

Most of the pre-service teachers stated that mathematical modeling activities were student-centered activities suitable for the constructivist approach. The preservice teachers made comments such as "It ensures the active participation of the student and keeps the lesson away from monotony" and generally emphasized that the mind is active in the problem solving process. Most of the preservice teachers stated that modeling activities are problems with many solutions. Some of the preservice teachers' definitions have been described as follows. "We need to think of different solutions and implement them." and "It is a problem in which everyone achieves different results. Thanks to these models, the student chooses the most suitable one for him and tries to solve the problem accordingly. ". The emphasis the teacher candidates made on different solutions in their definitions is obvious.

Most of the preservice teachers stated that modeling activities were difficult and complex problems. While describing the modeling activities, teacher candidates have made comments like "Modeling activities force the human mind and produce different solutions that allow different ideas to produce.". Another theme that pre-service teachers use when defining modeling activities is that it is a real life problem. The pre-service teachers emphasized that they exemplify abstract mathematics on the basis of the problem through concrete examples. For example, one of the pre-service teachers said, "Modeling activities are very efficient for students in terms of explaining something abstract to the student in a concrete way. In this way, the student understands the problem better ".

Modeling as a Recognition Tool

The elementary school teacher candidates were asked how they evaluated the use of mathematical modeling activities to discover students with special talents in mathematics. When the opinions of the teacher candidates are compiled, they are summarized in the table below.

Table 2.

Opinions of Elementary School Teacher Candidates about Using of Mathematical Modeling Activities for Discovering of Students with Special Talents in Mathematics

Themes	Codes	F
Observing the different performances of students	Different level of math/ Problem solving ability/ method use/	7
Monitoring the creativity of students	Examining the solutions of the questions / different types of solutions / math associations	13
Tracing students' thoughts	Noticing the higher level thinking of students	8

Pre-service teachers emphasized that different performances of students in the process of modeling activities can be observed. For example, Pre-service elementary teachers stated that, "I think that this type of students can perform mathematical modeling more easily and show themselves at an advanced level in this subject.". The preservice teachers stated that by looking at the solutions of the modeling activities, they could recognize gifted students. One of the pre-service teachers explained his/her thoughts as, "With this activity, we can

determine how the student reached a solution and what methods he used. In this way, we can understand whether that student has special talent in mathematics. ".

They thought that students' high-level thinking skills could be observed in these activities. In this context, one of the preservice teachers described his idea as follows: "As gifted students have the ability to comprehend and associate events more quickly with mathematical modeling, it is easier for them to be discovered by this means.". It was emphasized that modeling activities reveal creativity in order to identify students with pre-service teachers. One of the pre-service teachers commented as, "I think that not only the student is discovered with mathematical modeling activities, but also the student who has new, different and creative ideas will be noticed".

The preservice teachers stated that students' thinking processes could be examined in the process of mathematical modeling activities. For example, one of the pre-service teachers emphasized that:

> *If we need to evaluate the situation on the basis of primary school, when the mathematical modeling activity is presented to the class, some of them will get bored and some think on the question with great enthusiasm and produce ideas. The teacher sees the students working on the question at this time and asks, "Why did you do it like this? Can you explain?". If he guides students with such questions, those students can be noticed. These kinds of activities, which can be applied at all grade levels, are an opportunity for the child to emerge the gem.*

Mathematical Modeling as a Differentiation Tool

The opinions of the pre-service teachers on the basis of using mathematical modeling activities as differentiation are described below.

Table 3.

Opinions of the Pre-Service Teachers on the Basis of Using Mathematical Modeling Activities as Differentiation

Themes	Codes	F
Supports creativity	different solutions/Different ideas/ multi-solutions	9
Supports Math Ability	Problem solving/ reasoning/analytical thinking /making association	10
deeply content of math	Mathematical understanding / content knowledge	2

The preservice teachers stated that when modeling activities are used as a differentiation tool, they support students' creative thinking skills and higher order thinking skills. One of the pre-service teachers stated that "it was a successful activity in terms of directing them to think about creating different solutions", while another stated that it was "capable of developing higher-level skills more". Another teacher candidate explained his views, "Mathematical modeling activities for gifted students will contribute to their development. It will improve their thinking skills and mathematical skills. It will take them to the next level.".

Apart from these, the opinions of teacher candidates about using mathematical modeling activities in the classroom as a differentiation tool are given below.

It is seen that pre-service teachers liked mathematical modeling activities as differentiation activities and expressed positive opinions about it's application in the classroom. Most of the preservice teachers stated that they would use mathematical modeling activities again in education classes. For example, one of the pre-service elementary teachers state that "Modeling activities can actually be tailored to all levels, and the work that will help students come out of uniformity can be a good opportunity to unleash potential when we become teachers. I will definitely use it ". However, it has been observed that most of the pre-service teachers are hesitant that they can reveal different thinking levels of the students with these activities. In addition, it was seen that most of the pre-service teachers were hesitant about whether the mathematical modeling activities were suitable for every subject and students at different levels were hesitant about answering the problems at different levels. Emphasizing that the lecture hours are insufficient and the teaching subjects are many, the teacher candidates stated that there is no modeling activity in every subject. The opinion of the teacher candidate is as follows. «I think it is difficult to find MEAs in all subjects. There are also a lot of topics. It can be difficult to both cover topics and do them. »

Discussion & Conclusion

The most effective role in nomination belongs to classroom teachers. teachers make evaluations using nomination forms. This makes it necessary to make an evaluation as a result of a limited observation. Teachers have difficulties in nominating gifted students with high-level thinking skills (Akar & Uluman,2011). However, using model eliciting activities, it is possible to nominate effective, applied, time-spread, comprehensive, product-oriented candidates. Most of the pre service classroom teachers participating in this study (87%) stated that they would use mathematical modeling activities in their classroom practices. In this context, it may be possible to correctly identify gifted students with these activities integrated into classroom processes.

It is essential that teachers in the classroom meet the needs of different students. Mathematical modeling activities are one of the differentiation strategies that teachers can use in the classroom in terms of enabling different solutions (Şengil-Akar, 2018). In this study, pre-service elementary teachers understood the basic philosophy and structure of MEAs and stated that it would be beneficial to use MEAs as a differentiation tool/strateji. In addition, preservice elementary teachers stated that when they become teachers, they can support gifted students in their classes with mathematical creativity, problem solving skills, and reasoning skills with these activities. From this point of view, the use of strategies such as MEAs by the preservice elementary teachers in the future teaching process may meet the needs of students with different skills in the classroom.

References

Akar, İ., & Uluman, M. (2011). Elementary education teachers' accuracy in nominating the gifted students [Sınıf öğretmenlerinin üstün yetenekli öğrencileri doğru aday gösterme durumları]. *Journal of Gifted Education Research*, *1*(3), 199-212.

Carpenter, T. P., & Fennema, E. (1992). Cognitively guided instruction: Building on the knowledge of students and teachers. *International Journal of Educational Research*, *17*(5), 457-470.

Chamberlin, S. A., & Moon, S. M. (2005). Model-eliciting activities as a tool to develop and identify creatively gifted mathematicians. *Journal of Secondary Gifted Education*, *17*(1), 37-47.

Coxbill, E., Chamberlin, S. A., & Weatherford, J. (2013). Using model-eliciting activities as a tool to identify and develop mathematically creative students. *Journal for the Education of the Gifted*, *36*(2), 176-197.

Creswell, J. W., & Poth, C. N. (2016). *Qualitative inquiry and research design: Choosing among five approaches*. Sage publications.

Doruk, B. K., & Umay,A. (2010). Matematiği günlük yaşama transfer etmede matematiksel modellemenin etkisi. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, *41*(41).

Gilat, T., & Amit, M. (2012, July). Teaching for creativity: The interplay between mathematical modeling and mathematical creativity. In *Proc. 36th Conf. of the Int. Group for the Psychology of Mathematics Education* (Vol. 2, pp. 267-274).

Lamon, S. J., Parker, W. A., & Houston, S. K. (2003). *Mathematical modelling: A way of life-ICTMA 11*. Elsevier.

Lesh, R., & Doerr, H. M. (2003). Foundations of a models and modeling perspective on mathematics teaching, learning, and problem solving. *Beyond constructivism: Models and modeling perspectives on mathematics problem solving, learning, and teaching*, 3-33.

Lesh, R., & Lehrer, R. (2003). Models and modeling perspectives on the development of students and teachers. *Mathematical thinking and learning*, *5*(2-3), 109-129.

Lesh, R., Hoover, M., Hole, B., Kelly, A., & Post, T. R. (2000). Principles for developing thought-revealing activities for students and teachers. In *Research design in mathematics and science education* (pp. 591-646). Lawrence Erlbaum Associates, Inc.

Şengil-Akar (2018. *Matematik Eğitiminde Farklılaştırma için iyi bir araç olarak matematiksel modelleme etkinlikleri*. Özel Yetenekliler ve Eğitimleri içinde (Ed. Feyzullah Şahin). Anı yayımcılık.

Paper ID: ICGYSE53

Type: Oral, Abstract

Article topics in the ICGYSEducation: Psychological Counselling and Guidance

Comparison of Attending Support Education for Gifted Students in Terms of Psychological Well-being, Academic Self-Perception and Loneliness Variables

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Abstract

This thesis was applied to the students with poor attendance at school in the Science and Art Center of Izmir province, aims to analyze the students', who do not attend the classes in BILSEM(Science and Art Center), psychological state and to compare them with those who have high attendance at school, to study on psychological well-being, academic self-perception and levels of loneliness. The study was begun along with data acquisition right after the application had been granted and it is limited in Izmir province and the 2019-2020 academic year-fall term. The population of the study was constituted by 220 students who were enrolled in BILSEMs (Science and Art Centers) in Izmir province and attend school with high absenteeism in the 2019-2020 academic year. It became a criteria to attend the classes for 2 years after the enrollment to BILSEM (Science and Art Center) in the process of selecting students for BILSEM (Science and Art Center). The students in BILSEM (Science and Art Center) who do not continue the education will be regarded as they do not continue at their own request, not by the reason of the conditions. Also, the criteria which these students must continue the education in BILSEM (Science and Art Center), has become valid. Psychological Well-being Scale, Academic Self-Perception Scale, Anxiety Scale for Children, Sociodemographic Information Form have been applied. SPSS (Statistical Package for the Social Science) 19.0 programme has been used for statistical analysis of data collected by the participants. Data analysis has been done after the entry of datas came from the questionnaires. Statistics describing general characteristics of gifted students who are continuant and non-continuant for the education; frequency and percentage for dashed variables, for continuous variables average; standard deviation, median, minimum-maximum values are given. The Descriptive statistics of dependent variables has been used in data evaluation. 'Shapiro Wilk-w Test' has been applied for the purpose of revealing whether the datas are suitable for normal distribution, or not. Mann-Whitney U Test, Kruskal Wallis among Non-Parametric Tests and Spearman's rank correlation have been applied.

Keywords:
Psychological well-being, academic self-perception and levels of loneliness

Paper ID: ICGYSE54

Type: Oral, Abstract

Article topics in the ICGYSEducation: Gifted Education

Teaching for Sustainable Development

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Abstract

The focus on European and global guidelines in education by following (UNESCO) SDG 4, aims to inclusive and equitable quality education. It should empower people with knowledge, skills and values to live in dignity, build their lives and contribute to their societies. If gifted students get underserved in the classroom, they can become restless, bored or even depressed. Within the project Holistic Educational Process and Mental Health Strengthening, which is funded by the Public Research Agency of the Republic of Slovenia (ARRS) and the International Institute of Psychotherapy and Applied Psychology in cooperation with Alma Mater Europaea - European Center, Maribor, we conducted a non-standardized survey, with focus on educational workers and their attitude towards guidelines in education mentioned before. We used a descriptive and causal non-experimental method of pedagogical research. We searched for the causes of the existing situation (understanding and application) in the field of holistic education in Slovenia and possible application of guidelines in educational worker's work. We used randomised sampling, by sending the link to an online survey. The data was processed with the SPSS. The results show some statistically significant correlations between educators' degree of education and application of guidelines. We will recommend that entrance on the faculty should be more rigorous, because we can see the lack of some significant personality traits in educational workers and to the greatest deficit of the gifted students, which should get the best of the teachers.

Keywords:

Gifted students, teaching, sustainable development

Paper ID: ICGYSE55

Type: Oral, Abstract

Article topics in the ICGYSEducation: STEM and Science Education

Reconstruction of Indigenous Science in the Process of Making Tofu as a Source of Learning Science

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Abstract

Indonesia is a country that is rich in various types of traditional foods that have been preserved from generation to generation, one of which is tofu. Tofu has a high protein content, and is usually eaten as a companion to rice. In Indonesia, making tofu is still mostly done on a household scale. The process of making tofu goes through various stages, which can be used as a source of learning science if a science reconstruction process is carried out. The purpose of this research is to obtain the reconstruction of indigenous science in the process of making tofu as a source of learning science. The method used is in-depth observation of 5 home industries which are tofu producers. From the results of these observations, it was obtained indigenous science which was then reconstructed to obtain scientific science. The reconstruction was carried out through literature study and expert validation. Based on the research results, it was found that in the process of making tofu, there are several scientific concepts that can be used as a source of learning science, including the concept of heat transfer, separation of mixtures, colloids, and material changes. The conclusion from this research is that the scientific concept is obtained in the form of heat transfer, separation of mixtures, colloids, and material changes that can be used as a source of learning science.

Keywords:

Reconstruction, indigenous science, Tofu

Paper ID: ICGYSE56

Type: Oral, Abstract

Article topics in the ICGYSEducation: Thinking Skills

Bibliometric Analysis Trend of Computational Thinking Research Focusing on Physics-related Studies

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Abstract

Stages of thinking computational thinking skills have an important role in shaping creative thinking to find ideas in a structured manner. Not only developing creative thinking, this stage also helps understand how to implement ideas into computational procedures. Through bibliometric studies, this article will discuss global research trends in the field of computational thinking based on publication output and co-occurrence with author keywords. Metadata obtained from the Scopus database as many as 9 articles published between 2014-2020 were retrieved. The results show that the first appearance of physics research in physics in 2014 reappeared in 2018 and there has only been an increase in knowledge in this field. Five clusters of VOSviewer software were reviewed; The words that appear most frequently are computational thinking, students, computational theory, computational models, curriculum, computational methods, physics education, computational physics courses, creative thinking, modelling learning and synergistic learning. This cluster represents the research stream in physical physics. The four main practices in physics, namely data practice, modelling and simulation practice, computational problem practice, and systems thinking have not been maximized as evidenced by highly researched thinking in physics. This article will further discuss future research opportunities in detail.

Keywords:

Bibliometric analysis, VOSviewer, computational thinking, physics education

Paper ID: ICGYSE57

Type: Oral, Abstract

Article topics in the ICGYSEducation: Art Education

The Relation of Healthy Breath and Success

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Abstract

Breathing is the first activity and the need of the humans from that moment they are born. We can survive several days without eating or drinking yet we can spend only a few minutes without breathing. Particularly in this day and age, that is during Covid-19 pandemic, it has become difficult to breathe in behind our masks. The breaths we take have been insufficient for us making it hard to trepopnea. Perhaps, just because of the masks we have been wearing, the process of breathing has started to deteriorate, become unstable and disorganized. We have once again and thoroughly understood how important it is to breath. Breathing = Life! Healthy breath provides us with self-control over our bodies. Realizing how much it affects our brain, psychology, body and ability, how even singing affects the healing power of respiratory health will change our lives considerably. This article has been written for all of us, especially the young generation, on the purpose of raising awareness. The importance and effects of breathing in and breathing out process which is natural, reflexive for each individual have been mentioned. Essential data to make our lives much more efficient and effective are presented with taking an effective and practical route to breathing healthily.

Keywords:

Breath, body health, body awareness, respiration health

Paper ID: ICGYSE58

Type: Oral, Abstract

Article topics in the ICGYSEducation: STEM and Science Education

Blended Learning: Physics Learning Web Development for Quantum Physics Courses

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Abstract

This study aims to (1) Develop a Web Learning Physics for the quantum physics course, (2) Describe the feasibility of products developed through media validation, material validation, and product testing. This research procedure was adopted from Borg and Gall, but in this study, seven development stages were used, namely potentials and problems, information gathering, product design, design validation, design revision, product testing, and product revision. The data collection instrument used in this research and development was a Likert 1-5 scale questionnaire with quantitative and qualitative data analysis. The results of the research are in the form of Web Learning Physics in quantum physics courses and the results of product feasibility include the eligibility of 84.8% media experts, 84% material experts, and 81% product trials scoring with the "Very Good" category so that the product developed is suitable for use as a medium. learning quantum physics courses.

Keywords:

Web-based Learning, research, web development, blended learning

Paper ID: ICGYSE59

Type: Oral, Abstract

Article topics in the ICGYSEducation: Gifted Education

Kızılçulu Science and Art Center' Facilities, Novelties, and Internationalizations for Gifted Students with Buca IMSEF competition: A Case Study

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Abstract

Gifted students show different characteristics from their normal peers so they need some requirements for special education. In Turkey, Science and Art Centers (SACs) are special education centers for gifted students. But SACs are not sufficient both in number and also experiencing some problems in training at these centers. Within the scope of this study, the role of SACs for gifted students education was investigated. Considering the problems encountered in science and art centers in Turkey, we suggest a novel education system for gifted students from kindergarten to university who need special education. With the implementation of this system, the problems encountered in the training will be largely resolved and gifted students will benefit more with active learning from these centers. In the talent workshops where application courses are held, it is planned for students who are talented in the fields of natural and science, mathematics, astronomy, music, painting, photography, robotics, coding, ceramics and philosophy. Kızılçullu Science and Art Center (KSAC) organizes the national and international music and science fair Buca HIMSELF (International Music Science Energy Engineering Fair) with the approval of the Ministry of National Education. Students exhibit their projects and talents in the field of science and music. In this new system applied in KSAC, gifted students are discovered in the society. In addition, they develop their special abilities and use their capacities. They carry out interdisciplinary research and activities in the fields of science and arts and get opportunity to show themselves on national and international platforms.

Keywords:

Gifted students, science and art center, gifted education

Paper ID: ICGYSE60

Type: Oral, Abstract

Article topics in the ICGYSEducation: Agriculture and Biotechnology Education

Web Application for Knowledge Management of Broiler Production

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Abstract

The research purposes were to create a web application for broiler production knowledge management. Using the principle of the ADDIE Model which follows steps: 1. Analysis process; found that web applications are able to preserve and transmit the unique knowledge generated by the accumulation of experiences of the farm personnel to transfer and pass on the knowledge necessary for production efficiency and solving problems that arise during production, 2. Design process; according to the process of knowledge management of broilers, 3. Development stages by bringing a web application for knowledge management validate with 3 IT specialists, 4. Implementation process by allowing interested people to use the web application for a period of 180 days, and 5. The evaluation process to estimate the satisfaction of application quality with actual trial users. The research results were found that the web application comprises 4 parts. The contents were as follow farm area number of chickens, raised species type chicken, sex to be raised and the number of days to start raising, broiler production outcome, chicken weight per bird per day, total chicken weight, total chicken feed and water intake per bird per day, total chicken feed per day, task operation current schedule and schedule upcoming work schedule, weekly food consumption estimate, and general data including the temperature in the culture area relative humidity in the farming area wind load in the farming area calendar showing operating schedule. There were 223 users of the application. A high level of quality satisfaction and high level satisfaction with broiler knowledge management efficiency.

Keywords:

Knowledge management, web application, ADDIE model, broiler production

Paper ID: ICGYSE61

Type: Oral, Abstract

Article topics in the ICGYSEducation: Gifted Education

Perfectionism and Overexcitability: Uniqueness or Lack of Socioemotional Development of Gifted and Talented Students?

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Abstract

Socioemotional issues among gifted and talented students are often debated in gifted and talented education. Nevertheless, these components are not being highlighted in the domain of local educational psychology. This study was administered to identify the profile of students as well as the relationship between the perfectionism and the overexcitability among gifted and talented students. This research was a descriptive and inferential quantitative study conducted in order to see the profile and correlation between the two variables. The study sample consisted of 40 students from a gifted and talented school established in Universiti Sains Islam Malaysia (USIM), Negeri Sembilan. This study employed two types of instruments, namely the Frost Multidimensional Scale (FMPS) instrument to measure perfectionism and the Questionnaire-II (OEQ II) instrument to measure overexcitability. The findings of this survey demonstrated that gifted and talented students have a unique personality, and there is a significant relationship at a high level between the perfectionism and overexcitability. The result of this investigation could help to explain the interaction between overexcitability and perfectionism and be able to understand the positive and negative elements that exist in students. Therefore, awareness must be cultivated to enhance students' self-development. Further scientific research on this socioemotional issue could assist students to get to know themselves better and in turn, enhance the skills for socioemotional adaptation in the daily life of gifted and talented students.

Keywords:

gifted and talented students, socioemotional, perfectionism, overexcitability.

Paper ID: ICGYSE62

Type: Oral, Abstract

Article topics in the ICGYSEducation: Thinking Skills

Development of Critical Learning Design (CLD) Based on Project Based Learning Model to Improving C-5 Students' Critical Thinking Skill

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Abstract

Learning in the 21st century has required students to have abilities from an early age, one of which is the skill to think critically. However, the learning process at the elementary level has not maximally brought this up. Thus, the purpose of this research is the development of Critical Learning Design (CLD) based on a project based learning model to improve C-5 students' critical thinking skills. The subject consisted of 25 C-5 elementary school students in a school in Bandung. The design used in Analysis, Design, Development, Implementation, and Evaluation (ADDIE). The instrument is in the form of four essay questions with indicators of critical thinking consisting of interpretation, evaluation, inference, and explanation. The results obtained percentages for each category: 1) Interpretation (the highest percentage is 80% and the lowest is 4%); 2) Evaluation (the highest percentage is 16% and the lowest is 12%); 3) Inference (the highest percentage is 32% and the lowest is 4%), and; 4) Explanation (the highest percentage is 48% and the lowest is 0%).

Keywords:

Critical Learning Design (CLD), Project Based Learning Model, Critical Thinking Skill

Paper ID: ICGYSE63

Type: Oral, Abstract

Article topics in the ICGYSEducation: STEM and Science Education

Preliminary Design of Multitier-(Opened/Closed-Ended) Diagnostic Test (M-O/C-EDT) for Gifted Students in Measuring the Conception of Physics

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Abstract

Students' conceptions in physics are very susceptible to misconceptions. Misconceptions can occur in students with various categories. Various studies on the development of diagnostic test instruments have been carried out, but are still limited to students with normal categories. Meanwhile, diagnostic tests for gifted students are still difficult to find. The purpose of this research was to create a preliminary design of Multi Tier- (Opened/Closed-Ended) Diagnostic Test (M-O/C-EDT) for gifted students. The research design used is Define, Design, and Develop (3D). The results are a preliminary design of a diagnostic test for gifted students with a four-tier format which will be made in software, equipped with text to speech and speech to text features. This research will be the first step in making diagnostic test software for gifted students.

Keywords:

Conception, physics, gifted students, and M-O/C-EDT

Paper ID: ICGYSE64

Type: Oral, Abstract

Article topics in the ICGYSEducation: EFL and Language Education

Promoting Language Enrichment Activities through Social Learning Platform Among the Gifted Students of Kolej GENIUS Insan

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Abstract

This study covers the need to prepare suitable activities for the language enrichment programme for the gifted students. MOOC as a social learning platform for students at the lower secondary is a new approach for the gifted students as they could enrol and go through them at their own pace. This study discovers whether the gifted students could benefit from the language enrichment programme using this social learning platform. An online questionnaire was distributed to all Foundation 1, 2 and 3 students of Kolej GENIUS Insan who participated in the pilot programme developed by Open Learning Malaysia. The students also wrote their reflection on the use of MOOC in their journal. Their responses were analysed and reported using descriptive statistics and content analysis. Students acknowledged that the activities were interesting and engaging. They could understand the instructions easily and clearly. Majority enjoyed peer engagement features such as comments and likes. However, the user interface and navigation were considered tough because students were not used to the platform. They also thought the lessons and activities helped them learn English. The findings revealed the potential of social learning platforms to offer flexible learning experiences. It could also assist the preparation of suitable materials and activities in a language enrichment programme for gifted students. Teaching and learning process could happen anywhere and anytime providing that students are motivated to complete the activities in the courses. For gifted students, this platform offers independent learning and acceleration at their own pace.

Keywords:

MOOC, social learning platform, language learning, enrichment activities, gifted students

Paper ID: ICGYSE65

Type: Oral, Abstract

Article topics in the ICGYSEducation: Computer Education

Gifted Students and e-learning During the Pandemic: Its Limitations, Strengths and Weaknesses

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Abstract

The purpose of this study is to review e-learning in the context of gifted students during the period in which distance education started to be conducted in Turkey during the pandemic. The study discusses and offers recommendations on the definitions, positive and negative aspects, and limitations of e-learning by using a deductive method. Families and teachers are responsible for positively channelling the desire and curiosity, which require continuity of the gifted students through technology and the Internet. "Document review," one of the qualitative research techniques, is used as a data collection tool in line with the purpose of the research. The information obtained from the document review is analyzed, interpreted and compiled to cover the purpose of the research. E-learning, which is an alternative solution for the gifted students to reach knowledge to satisfy their high sense of curiosity and lifelong learning needs, can be defined as the interaction of students with the teacher and other students according to their individual differences and learning pace, and the realization of learning by using the opportunities offered by the Internet and technology. Taking advantage of e-learning in terms of supporting the lifelong learning that gifted students need may be an important solution during the pandemic. The students are now able to receive distance education that was made possible by legislative regulations as part of the measures taken due to the Covid-19 pandemic, which has increased its impact throughout the world since the early days of 2019. In this context, mentoring must be provided to all students, including the gifted students, and it should be ensured that they use technology together with the Internet and learn on their own. The study investigates how gifted students can effectively use the e-learning method and access information through distance education, technological resources, and the Internet. In addition, the study refers to the advantages and disadvantages of e-learning for gifted students. The study makes recommendations to teachers who will conduct the education process and families in order for them to positively manage the process.

Keywords:

e-learning, gifted children, use of technology

Paper ID: ICGYSE66

Type: Oral, Abstract

Article topics in the ICGYSEducation: Art Education

The Teaching Skills to Enhance the Gifted Students in the Field of Design

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Abstract

The study aims to recognize the proper tool to develop the gifted students for reaching the ultimate design level, guiding them to the correct path, gradually, to the professional track of design. The teaching skills should enhance their imagination, enrich their curiosity, and strengthen their sense of humor, three major characteristics that bind the gifted students' characteristics and the design. This research used the descriptive correlation study design to discover the appropriate teaching skills that boost the talented students. The used sampling of 135 students where the females were 80% and 20%, male students, in the academic year 2019-2020 at Ajman University. The findings have shown a significant and positive for teaching skills based on the four levels of students (F= 12.589, p=.024). The study concluded that the complete and divers' assignments of freehand applications and design principles, as two teaching skills, need extra effort among the fundamental teaching skills, including the perspective drawings, the coloring principles, and the drafting. These skills will enhance gifted students to reach the expected creative level for any design project by developing the main characteristics mentioned previously.

Keywords:

Art education, gifted education, teaching skills

Paper ID: ICGYSE67

Type: Oral, Abstract

Article topics in the ICGYSEducation: Art Education

The Management of Posture in Voice Training

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Abstract

Learning and teaching the Ideal Posture and the principles of using this physiologically, constitutes the basis of a correct and professional singing education. The aim of this study is, first, creating an awareness for the ideal posture that has to be learned and applied in singing education; and then to create a supplementary resource for curious students and mainly for vocal teachers, with the information they may need in order to assist their students to achieve their ideal postures. In this study, the information that were gathered from up to date sources are submitted, blended with our own knowledge, in the matter of achieving the ideal posture for the professional vocal artists. In this study, in various sections; the matter of posture, which is the most essential bodily function, is explained in both anatomical and physiological aspects. Thereafter, mentioned of M. Garcia's posture teaching who is the vocal pedagogue of the 19th century, he extensively investigated to have the ideal posture of an opera singer and this discipline explained on the basis of this teaching. After the ideal posture taught during the vocal training was explained, how the artists maintain optimum vocalism in the face of a different posture that can be demanded in the opera scene by the director. Subsequently some supplementary teaching methods, such as; Feldenkreis Method, Alexander Technique, Yoga and Pilates that can be used in vocal education are explained and referred the usage areas of these methods in vocal education. In the results and recommendations section; in the consideration of these methods that have survived until today; referred to what is an ideal posture, how it can be learned / taught, and once for all, the positive contributions of ideal posture acquisition on singing. As a result, other posture control methods taught in different forms of singing education were also identified and information on the most appropriate form of posture management and its control was provided.

Keywords:

Posture, singing, voice training, performing arts, opera, musical, theatre

Paper ID: ICGYSE68

Type: Oral, Abstract

Article topics in the ICGYSEducation: Computer Education

Potential and Opportunities for Higher Education Student to Support the Industrial Revolution 4.0 Era

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Abstract

The current era has shown how humans live and work, experiencing a shift called the fourth industrial revolution. The fourth revolution based on cyber-physical systems represents the changing pace of the academic community, including the combined technological transformation of the physical and digital worlds with artificial intelligence, automation, 3D printing, digital computing, and robotics. This study aims to examine that this era has implications for Indonesia as a country that wants to become a developed country, especially in education. This type of research is descriptive research. The data collection involved several literature sources and students at three public universities. Analysis of the questionnaire results using linear regression. The survey results show: (1) Efforts to adjust the higher education curriculum to support experiential learning; (2) Providing scholarships and services to support the development of the internationalization of higher education; and (3) Readiness of students in facing the fourth industrial revolution. This study highlights several theoretical and empirical contributions and provides recommendations that Indonesian students have great potential and opportunities to improve experimental learning. Besides, the implementation of the curriculum policies affects student motivation in facing the challenges of the industrial revolution 4.0.

Keywords:

industrial revolution 4.0, higher education regulations, international students, student motivation

Paper ID: ICGYSE69

Type: Oral, Abstract

Article topics in the ICGYSEducation: Gifted Education

At a Glance of Physics in Higher Education in Turkey

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Abstract

In the last 20 years, the number of candidates applying to the ÖSYS has increased and the demand for higher education continues to increase gradually. The number of candidates applying to the ÖSYS was 1.678.383 in 2006, this number reached 2.265.844 in 2017, 2.381.412 in 2018, and 2.528.031 in 2019. This shows that by the increase in the population the demand to enter a university has been increased in Turkey. Also this is because of the new universities in each city. By 2007, the government founded at least one university in each city, and this led to the increase in the number of undergraduate students. Nevertheless, the number of unemployed graduates has also increased. One of the most unemployed graduates are basic science and especially the physics department graduates. In order to promote the basic science, the government offers some incentives, for example the brightest students from Physics, chemistry, biology and mathematics departments of different universities like Bosphorus, METU, Hacettepe take lessons in a special class. University students, who are regarded as scientists of the future, are given 1000 TL scholarship every month. The teachers of these students are also 'first class'. Yekta Saraç, President of YÖK, Hasan Mandal, President of TÜBİTAK, university rectors and professors who are well-known in their fields enter their courses.

Keywords:

Physics departments, physics education

Paper ID: ICGYSE70

Type: Oral, Abtract

Article topics in the ICGYSEducation: Art Education

Painting Education During Pandemic Process

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Abstract

The research is of qualitative character and is a case study. Participants are teachers with at least 10 years of seniority who teach online painting training in Izmir. 6 art teachers voluntarily participated in the study. The Semi-structured Interview Form was used as a data collection tool. The semi-structured interview questions were 10, and 2 were submitted to expert opinions and corrections were made. An example interview question; "Since it is important to exhibit student works, what do you think about the pandemic process of the exhibition reaching its purpose and being efficient? Why is that?". Content analysis technique was used in the analysis of the data, and the themes and sub-themes created as a result of the analysis were presented in the report in tables. As a result of the interviews, the online painting lesson is not at a level to meet the expectations, there are deficiencies, there are problems in the application part of the students even though there are theoretical learning while taking online painting lessons, therefore, the online art lesson education cannot replace face-to-face education, the lesson is incomplete. That is the same opinion of the majority who interviewed were.

Keywords:

Pandemic, painting, art education, Covid 19, distance education

Paper ID: ICGYSE71

Type: Oral, Abstract

Article topics in the ICGYSEducation: Gifted Education

Competition Skills and Challenge Level Scale (CCS) in Gifted and Talented Education: Development, Validity and Reliability

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Abstract

For gifted and talented pupils, one of the most important aims for educators and researchers is handling underachievement situations of these students. And one of the major external factors on gifted and talented students' motivation is an eligible competitive education environment in their schools. Competitiveness is an important factor for giving them a chance to test their abilities and motivates them to bring out the best in themselves. Also, for a lifespan success, education must challenge students' potentials strongly because they will acquire study discipline. If they educate with a low level curriculum than their potential and not existing competition environment in the classroom, this can be cause of their lifespan failure. So as; we can say that measuring and assessing competition skills and challenging levels of their potential is very important in gifted and talented education. In this manner, there is a need to evaluate competition skills and the challenging level of gifted and talented students with a valid and reliable assessment instrument. Therefore, the purpose of this study is introducing competition skills and challenge level scale (CCS) which is developed for Gifted and Talented secondary school grade students. For the factor analyses and reliability studies of scale research data was collected from 510 secondary school students which are identified as gifted and for the test-retest reliability, it was reached to 280 students again. Analyses were conducted by using SPSS. Factor analyzes were run and internal validity coefficients were estimated for CCS. Correlations for scales and subscales were evaluated. The result findings will be presented and shared in detail in the conference.

Keywords:

Gifted and talented education, competitiveness, competition skills, challenge level, underachievement, motivation, school environment

Paper ID: ICGYSE72

Type: Oral, Abstract

Article topics in the ICGYSEducation: Art Education

Analysis of the Problem Based Learning Model Approach "Learning Javanese and Javanese Cultural Arts" during the Pandemic

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Abstract

The purpose of this study is to find data on the author's experience during the 2020 Covid-19 pandemic season in Indonesia, the ability of students in the academic field and online in the Javanese and Karawitan Cultural Arts Learning courses with the Problem Based Learning approach to learning, which is very visible from the lecture process. took place during the Covid-19 pandemic from February 2020, and being able to find out the advantages of online learning with a model that is very suitable in Indonesia invites students to think creatively and be found with maximum data and run according to the results of the RPS achievements. This study used a qualitative approach with the research subjects of Elementary School Teacher Education students of the seventh semester to equip them to think creatively and sharply in thinking. The results showed the data that the epidemic which is currently entering our beloved country in Indonesia has had a significant impact on the level of the Muhammadiyah University of Malang. This is the importance of the role of education in Indonesia, especially in the Elementary School Teacher Education Study Program, Teacher Training and Education Faculty at Muhammadiyah University Malang, referring to Law No. 14 of 2014 on Teachers and Lecturers, emphasizing that teachers and lecturers are required to have academic qualifications, competencies, teacher certificates, are physically and mentally healthy , and meet other qualifications required by the higher education unit in which they work, and have the ability to realize the goals of national education, with the E-learning process to help education in Indonesia, with a strategic learning model that can deliver advanced teaching material for the normal teaching and learning process without face to face. The teaching and learning process at home can use applications such as Edmudo, Google classroom, as a teaching and learning medium, WA, or Zoom media. The existence of educational youtube videos on learning Javanese and Javanese cultural arts can also be used as a process of deepening the material and the Problem Based Learning Model Approach which directly contains the basic concepts of material, defining problems, independent learning, exchange of knowledge, and cognitive, affective and psychomotor assessments.

Keywords:

Learning Model, problem based learning, Javanese and Karawitan cultural arts learning

Paper ID: ICGYSE73

Type: Oral, Abstract

Article topics in the ICGYSEducation: Psychological Counselling and Guidance

Examination of the Highest-rated Cartoons in Turkey in terms of Gender Equality

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Abstract

Gender equality in childhood is an important part of preschool education as well as an issue that has significant effects on the psychological structure of the child. The child who is constantly exposed to various visual / verbal stimuli will be affected by what he sees and hears. Television, which has been developing and spreading rapidly since its inception, has a great impact on the development of the child today. The child, who spends most of his day in front of the television, can reflect every behavior that is affected positively / negatively to his family and friends in his real life. At this point, the themes of the cartoons that are widely watched by children play an important role in child development. The objective of this study is to examine the terms of the highest-rated cartoons of gender in Turkey. This research was conducted according to the document analysis method, one of the qualitative research methods. In this study, from October 1-8, the highest rating in Turkey were investigated in terms of three cartoons gender. Cartoons researched in this context are "Rafadan crew, Vikings and Ibi". In addition, 3 sections from each cartoon were selected and examined randomly. Document analysis method, which is one of the qualitative research methods, was used in the research. As a result, it has been interpreted that cartoons give social messages to adopt the patriarchal order by further reinforcing the gender inequality.

Keywords:

Gender equality, cartoon, childhood psychology

Paper ID: ICGYSE74

Type: Oral, Abstract

Article topics in the ICGYSEducation: Gifted Education

The Relationship Between Computer Addictions and Social Skill Levels of Special Talented Children Between 9-12 Years

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Abstract

This study, it was aimed to examine the relationship between the social skill levels and computer addiction levels of specially talented children between the ages of 9-12 who attend the Science and Art Center and compare them in the context of demographic variables. The sample of the study consists of 117 students attending Konya Science and Art Center in Meram district of Konya. The data collection tools of the study are Social Skills Scale, Computer Addiction Scale for Adolescents and Personal Information Form. Descriptive statistics, Kruskal Wallis, Man-Whitney U and Correlation tests were used to analyze the data. In the findings of the study, it was determined that the social skill levels of children whose computer addiction level increased were decreased. The variables of the study group such as age, gender, parental education level, and the number of close friends were examined; There was no significant difference between Social Skills Scale (SST) scores. However, a statistically significant difference was found between the scores they got from SST according to the duration of daily internet use ($p<0.05$). In addition, the difference between the scores of the study group from the general total of the Computer Addiction Scale for Adolescents and the "Internet Addiction" and "Game Addiction" sub-dimensions according to their gender is not significant.

Keywords:

Gifted children, social skill level, computer addiction, 9-12 years.

Paper ID: ICGYSE75

Type: Oral, Abstract

Article topics in the ICGYSEducation: Gifted Education

Examining of Thesis on Science and Art Centers (SACs) for Gifted Students in Turkey

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Abstract

Gifted children differ from their normally developing peers due to their developmental characteristics and they leave. These differences reveal the fact that gifted children receive education in line with their abilities. At this point, they need a different educational support than their normally developing peers. Today, these educational needs of gifted children are met through Science and Art Centers (SACs). There are many academic and professional studies on SACs, which reach more children day by day and offer the educational opportunities they need in line with the needs of these children. Within the scope of this study, master's and doctoral studies conducted between 2005 and 2020 and scanned in the thesis on permission were examined. A total of 162 studies have been conducted during this period. 41 of these studies were prepared as doctoral thesis and 121 were prepared as master's thesis. In the study area-based assessment, 103 of the total studies were carried out only in the field of education, while 50 studies were related to the fields of fine arts, business, mathematics, music, psychology, social services and sports, and 9 studies were only about fine arts, business administration has been done in the fields of music and psychology. Considering the subjects discussed in the studies, the attitudes and views of gifted children about the determined course, the techniques and applications used in the lessons (SCAMPER technique, STEAM applications, etc.), the effects of the applications carried out within SACs on the development areas (cognitive, social-emotional, etc.), It has been observed that subjects such as the opinions and attitudes of the administrators and teachers about a subject, studies aimed at the needs of gifted children and the examination of their reactions against the determined situations (stress, etc.) have been studied intensively. It was observed that studies with families took place less than the fields mentioned. The lack of studies on the family dynamics, sibling and friend relationships of children receiving education within SACs is striking. By directing the researchers who plan to work in this field on the specified subjects, it can be ensured that gifted children turn to their social environment as well as the techniques and practices that contribute to their academic success and development.

Keywords:

Gifted children, SACs, giftted education research in Turkey

Paper ID: ICGYSE76

Type: Oral, Abstract

Article topics in the ICGYSEducation: STEM and Science Education

Israel and PISA 2018 – Part I

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Abstract

This article will present the results of the 2028 PISA International Tests of Israeli students. These tests have been administrated every three years since 2000 in mathematics, science and verbal literacy. The results of Israeli students have been compared to those of the OECD members as well as to those of all 79 participants of the PISA 2018. The first part of the article deals with the consensual harsh critique published in Israel as soon as the law achievements of Israeli students were revealed. It will show that the educational gaps among students from various socio-economic backgrounds, religions, and level of religiosity, as reflected by the school system they belong to. This has happened in spite of the substantial increase of resources Israel has adopted in the last decade, the very generous amount of money allocated to closing the educational gaps between the under-achieving sub-populations and non-minority, Jewish students, and the repeating declarations of all ministers of education and other official authorities about their personal commitment to strive for both closing the educational gaps and increasing its level. The second part of this article will deal with the fact that students who were expected to achieve poorly, have not been included in the PISA sample. These students were mainly Arab, as well as practically all Ultra-Orthodox boys. The Ultra-Orthodox girls included have not been a representative sample but rather a minority of girls belonging to this sector who do tale the matriculation examinations. As a result, the very disappointing results of Israeli student in the PISA 2018 tests have actually been much more inferior than published.

Keywords:

Mathematics, PISA, ISRAEL, Arab students, Haredi students

Paper ID: ICGYSE77

Type: Oral, Fulltext

Article topics in the ICGYSEducation: Gifted Education

Analysis of Activities in Geography Textbooks in Terms of the Level of Gifted Students

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Abstract

Educational programs in Turkey are conducted from a single center and are implemented by the Ministry of National Education (MoNE) under the same conditions throughout the country. But neither all borders of the country have the same conditions, nor students are at the same level. Therefore, it is extremely difficult to apply all the gains in the geography curriculum under the same conditions at all grade levels. This challenge is often addressed in the literature from the point of view of students who did not receive a good education at the previous stage of education or who had a low level of education. But on the other hand, it is not specified what is offered by the curriculum to students who have successfully completed the previous stage of education and have a higher level of education, and how they are subjected to individual education. For this reason, it becomes important whether this uniform structure of the geography curriculum is enriched by activities that include senior students in textbooks. In this study, secondary education in the 2019-2020 school year is 9th. it was examined to what extent the activities included in the textbooks accepted to be taught by the Ministry of education for classes included high-level thinking skills according to the renewed Bloom taxonomy. By the results of the document review conducted through the analysis of both MoNE and private publishing house which is prepared by ninth grade, the textbooks that have the level of understanding and recall when considering the level of activities with a large percentage of, but in spite of that it has been determined that the activities are not used in the steps to create. Based on this, it is suggested that the activity levels in textbooks should be considered and diversified according to the three-stage level of bloom taxonomy, at least at the simple level, intermediate level, difficult level. Textbooks can thus be diversified to address these three-level groups of students in a class.

Keywords:

Geography course, Bloom taxonomy, gifted students, Textbooks

Introduction

Although the technology is advanced, textbooks still remain an important resource for students to apply after the teacher. According to Küçükahmet, the textbook "is the basic material that allows the teacher to use his power better in teaching, give what he wants to

give more systematically, and the student to repeat what the teacher says at the pace he wants at any time and place" (Küçükahmet, 1998).

Geography course is a course with rich resources that includes many activities that are intertwined with life, while this feature serves not only to make sense of geography course, but also to provide the ability to make sense of life and live together with the rules of nature.

Textbook the first perception and concepts related to the field of Science in the student form the framework of knowledge infrastructure and skill acquisition (Kabapınar, 2006, p. 337). Considering the impact of textbooks on the learning - teaching process, the contribution of a well-designed textbook to the student is undeniable. At the same time, given that the activities that will be applied in the courses are designed under the guidance of textbooks, it is once again revealed to what extent the importance given to textbooks should be.

While the importance of this situation is great for students with normal intelligence levels, the importance of textbooks and activities to be developed for specially talented students is slightly increased. Because, according to Ataman (2004), gifted children are the most ignored group in special education and do not benefit adequately from educational opportunities. Although there is a consensus in the public that providing appropriate education to disabled people is a prerequisite for being a developed society, when gifted children are the subject, the same public cannot show the reactions that should be in the education of these children.

Individuals with special abilities need activities in which they can perform themselves. Specially gifted students have special educational needs (Denton and Postledhwaite, 1985; Maker and Nielson, 1996; Tomlinson, 1999; Chan, 2001; Clark, 2002; Delisle, 2003; VanTassel-Baska, 2005). In order to meet the educational needs of children with this characteristic, it is necessary to present creative activities that motivate them, in which they can demonstrate and develop their interests and abilities within the school (Koshy, 2002). In addition, specially talented students need a wide range of educational opportunities that cannot be provided through normal programs (Renzulli and Reis, 1985). Otherwise, specially gifted students may be bored with the school or lose interest in the school (Clark, 2002; ref. Levent, 2014, p.61).

Teachers involved in the education of gifted people are lifelong learners who continue their professional development in their branches (Emerick, 1992; Bernal,1994; Feldhusen, 1997; Westberg and Archambault, 1997; Dettmer, 1998; ref. Levent, 2014, p.91). In other words, these teachers are also people who renew their teaching skills after graduating from educational faculties (Dettmer and Landrum, 1998, p.3).

Teachers who have not received an adequate education about gifted students are insufficient to meet the needs of students of this trait (Archambault, Westberg, Brown, Hallmark, Emmons and Zhang, 1993; Westberg, Archambault, Dobyns and Salvin, 1993). However, necessary infrastructure information about gifted students is not provided in the undergraduate education they receive before the service (Goerss, Amend, Webb, Webb and Beljan, 2006). In this case, it can be said that many of the teachers are in need of in-service training in the field of gifted education (Davison, 1996; Karnes and Whorten, 1996; Vialle and Konza, 1997; Nugent and Shaunessy, 2003; ref. Levent, 2011b, p.35).

Method

This study was carried out by adopting a qualitative research pattern. Research data was collected from qualitative research methods through document review. Document review covers the analysis of written materials that contain information about the facts or facts that

are intended to be investigated. Document review allows you to analyze documents produced over a certain period of time about a research problem, or documents produced by multiple sources on the relevant topic and at different intervals based on a wide period of time. (Yıldırım and Şimşek, 2013, p.140-143).

Findings

Looking at the research findings, analysis of ninth grade textbooks by considering Bloom taxonomy according to learning areas is shown in Table 1.

Table 1.

Distribution of Unit Activities according to Bloom Taxonomy

Publishing House	Learning Area	Bloom Taxonomy
MoNE	NATURAL SYSTEMS	Remember (%23) Understand (%62) Apply (%10) Analyze (%4) Evaluate (%1) Create (-)
MoNE	HUMAN SYSTEMS	Remember (%27) Understand (%55) Apply (%10) Analyze (%6) Evaluate (%2) Create (-)
MoNE	GLOBAL ENVIRONMENT: REGIONS AND COUNTRIES	Remember (%51) Understand (%35) Apply (%3) Analyze (%6) Evaluate (%5) Create (-)
MoNE	ENVIRONMENT AND SOCIETY	Remember (%25) Understand (%58) Apply (%13) Analyze (%3) Evaluate (%1) Create (-)
Private	NATURAL SYSTEMS	Remember (%32) Understand (%57) Apply (%8) Analyze (%2) Evaluate (%1) Create (-)
Private	HUMAN SYSTEMS	Remember (%34) Understand (%44) Apply (%14) Analyze (%5) Evaluate (%3) Create (-)
Private	GLOBAL ENVIRONMENT: REGIONS AND COUNTRIES	Remember (%48) Understand (%33) Apply (%10) Analyze (%7)

		Evaluate (%2) Create (-)
Private	ENVIRONMENT AND SOCIETY	Remember (%21) Understand (%53) Apply (%12) Analyze (%6) Evaluate (%8) Create (-)

Looking at Table 1, the ninth-grade geography textbook designed by MoNE publishing house ranks first in natural systems, human systems, and activities with a level of "understand" in the fields of Environment and Society learning area, followed by a level of "remember" and then a level of "apply". Global environment: regions and countries in the field of learning, the level of "remember" ranks first, followed by the level of "understand", "analysis", "evaluate" and "apply". 9, which was also designed by MoNE publishing house.it was found that there was no "create" level activity in the classroom textbook.

Again, looking at Table 1, the ninth-grade geography textbook designed by a private publisher ranks first in activities with a level of "understand" in the fields of natural systems, human systems, and Environment and Society learning, followed by a level of "remember" and then a level of "apply". Global environment: regions and countries in the field of learning, the level of "remember" ranks first, followed by the level of "understand", "analyze", "evaluate" and "apply", which was also designed by the private publishing house. in the classroom textbook, it was also found that there was no activity at the" create " level.

Results

Ninth grade textbooks designed by MoNE were examined by considering Bloom's renewed level of taxonomy according to learning areas; in the field of natural systems learning, it was found that while remember (23%), understand (62%), apply (10%), analyze (4%), evaluate (1%), there was no activity at the level of creation. In the field of human systems learning, it was found that while remember (27%), understand (55%), apply (10%), analyze (6%), evaluate (2%), activity was not included at the level of create. Global environment: regions and countries in the field of learning, it was found that no activities were included at the level of remember (51%), understand (35%), apply (3%), analyze (6%), evaluate (5%), creation. Finally, in the field of environment and society learning, no activity designed at the level of creation has been achieved, while remember (25%), understand (58%), apply (13%), analyze (3%), evaluate (1%).

Ninth grade textbooks designed by a private publisher were examined with Bloom's renewed level of taxonomy in relation to learning areas; in the field of natural systems learning, it was found that while remember (32%), understand (57%), apply (8%), analyze (2%), evaluate (1%), there was no activity at the level of creation. In the field of human systems learning, it was found that while remember (34%), understand (44%), apply (14%), analyze (5%), evaluate (3%), activity was not included at the level of creation. Global environment: regions and countries in the field of learning, it was found that no activities were included at the level of remember (48%), understand (33%), apply (10%), analyze (7%), evaluate (2%), creation. Finally, in the field of environment and society learning, no activity designed at the level of creation has been achieved, while remember (21%), understand (53%), apply (12%), analyze (3%), evaluate (1%).

Recommendations

Based on the results of the research, some recommendations have been developed for Geography textbooks that will be developed and designed for specially talented students;
Geography textbooks and geography curriculum are renewed, and it is recommended to focus on studies that increase visualness in books. In order for geography lessons to become more noticeable, more activities should be included in the textbook. In structuring these activities, it is necessary to adopt the principle of close distance from the teaching principles contained in the learning - teaching process, especially since the subject is geography lessons and textbooks. The activities that will be developed must be removed from the level of memory and understanding and moved to the direction of the upper cognitive goals.

References

Archambault, F. X., Westberg, K. L., Brown, S. W., Hallmark, B., Emmons, C. L., Zhang, W. (1993). *Regular classroom practices with gifted students: Results of a national survey of classroom teachers (No. RM93102)*. Storrs, CT: National Research Center on the Gifted and Talented.

Ataman, A. (2004). *Gifted and gifted children*. M. R. Şirin, A. Kulaksızoğlu, A. E. Bilgili. *Book of selected articles of the Congress of Gifted Children of Turkey* (P. 155-168). İstanbul: Children's Foundation Publications.

Chan, D. W. (2001). Learning styles of gifted and nongifted secondary students in Hong Kong. *Gifted Child Quarterly, 45*(1), 35-44.

Clark, B. (2002). *Growing up gifted. Developing the potential of children at home and at school.* (5th ed.). Upper Saddle River, New Jersey: Prentice Hall.

Davison, J. (1996). Meeting state mandates for gifted and talented: Iowa teacher preparation programs. *Roeper Review, 19*(1), 41-43.

Delisle, J. R. (2003). To be or to do: Is a gifted child born or developed? *Roeper Review, 26*, 12-13.

Denton, C. & Postlethwaite, K. (1985). *Able children, identifying them in the classroom.* Windsor: NFER-Nelson

Dettmer, P., & Landrum, M. S. (1998). *Staff development: The key to effective gifted education*. Waco, TX: Prufrock Press.

Goerss, J., Amend, E. R., Webb, J. T., Webb, N., & Beljan, P. (2006). Comments on Mika's critique of Hartnett, Nelson, and Rinn's article, "Gifted or ADHD? The possibilities of misdiagnosis.". *Roeper Review, 28,* 249-251.

Kabapınar, Y. (2006). *Social Studies Textbooks in Light of The New Understanding of Learning.* C. Öztürk (Ed.), A constructivist approach to teaching life knowledge and Social Studies (2. printing) (336-367). PegemA Publishing, Ankara.

Karnes, F. A. & Whorten, J. (1996). Teacher certification and endorsement in gifted education: A critical need. *Roeper Review, 19,* 54-56.

Koshy, V. (2002). *Teaching gifted children 4-7: A guide for teachers.* London: David Fulton Publishers Ltd.

Küçükahmet, L. (1998). *Principles and methods of teachi*ng. Alkım Publications, 9. printing İstanbul.

Levent, F. (2014). *Understanding gifted children* (3. Printing), Ankara: Nobel Academic Publications.

Maker, C. & Nielson, A. (1996). *Curriculum development and teaching strategies for gifted learners.* Austin, TX: PRO-ED.

Nugent, S. A., & Shaunessy, E. (2003). Using film in teacher training: Viewing the gifted through different lenses. *Roeper Review, 25*(3), 128-134

Renzulli, J. S. & Reis, S. M. (1985). *The schoolwide enrichment model: A comprehensive plan for educational excellence.* Mansfield Center, CT: Creative Learning Press.

Tomlinson, C. A. (1999). *The differentiated classroom: Responding to the needs of all learners. Alexandria, VA: ASCD.*

VanTassel-Baska, J. (2005). Gifted programs and services: what are the non-negotiables? *Theory into Practice, 44*(2), 90-97.

Vialle, W. & Konza, D. (1997). Testing times: Problems arising from misdiagnosis. Gifted Education International, 12(l), 4-8.

Westberg, K. L., Archambault, F. X., Dobyns, S. M., & Salvin, T. J. (1993). The classroom practices observation study. Journal for the Education of the Gifted, 16, 120-146.
Yıldırım, A. and Şimşek, H. (2013). Qualitative research methods in Social Sciences. (9. Printing). Ankara: Seçkin Publishing.

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