



Strategies for the stimulation of critical thinking in students with intellectual disabilities

Estrategias para la estimulación del pensamiento crítico en estudiantes con discapacidad intelectual

Estratégias para a estimulação do pensamento crítico em alunos com deficiência intelectual

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DOI (Generic) : <https://doi.org/10.35622/j.rie.2022.01.011>
DOI (Document in English) : <https://doi.org/10.35622/j.rie.2022.01.011.en>
DOI (Documento en español) : <https://doi.org/10.35622/j.rie.2022.01.011.es>

Received: 15/06/2021 Accepted: 16/12/2021 Published: 16/12/2021

KEYWORDS

Intellectual disability, stimulation, strategies, creative thinking.

ABSTRACT. Education is the central column of the people, so it must be available to anyone. Creativity can be developed through its usefulness benefits everyone, especially students with intellectual disabilities, because it is an effective tool for acceptable inclusion in society. The objective of this work was to know basic concepts of critical thinking and the variables that are used with this population to develop them. Therefore, a descriptive and analytical study has been carried out with a documented review of various articles published from reliable sources, databases, and repositories. From the results obtained, various creative strategies applied to students with intellectual disabilities were known, which allows them to develop multiple skills and transfer them to solving everyday problems. Therefore, it is concluded that all people, including students with intellectual deficits, can develop creative thinking with various strategies for its stimulation.

PALABRAS CLAVE

Discapacidad intelectual, estimulación, estrategias, pensamiento creativo

RESUMEN. La educación es la columna principal de los pueblos por lo que debe estar al alcance de cualquier persona. A través de ella, se puede desarrollar la creatividad cuya utilidad beneficia a todos, en especial a los estudiantes con discapacidad intelectual porque es una herramienta eficaz para la inclusión aceptable en la sociedad. El objetivo de este trabajo fue conocer conceptos básicos del pensamiento crítico y las diversas que se utilizan con esta población para desarrollarlas. Se ha realizado un estudio de tipo descriptivo y analítico con la revisión documentada de diversos artículos publicados a partir de fuentes, bases de datos y repositorios confiables. A partir de los resultados obtenidos, se conocieron diversas estrategias creativas aplicadas a estudiantes con discapacidad intelectual, que les permite desarrollar diversas habilidades y trasladarlas a la resolución de problemas cotidianos. Se concluye que todas las personas incluso los estudiantes con déficit intelectual pueden desarrollar el pensamiento creativo con diversas estrategias para su estimulación.

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PALAVRAS-CHAVE

Deficiência intelectual, estimulação, estratégias, pensamento criativo

RESUMO. A educação é a principal coluna dos povos, por isso deve estar ao alcance de todos. Por meio dela, pode-se desenvolver uma criatividade cuja utilidade beneficia a todos, principalmente os alunos com deficiência intelectual, pois é uma ferramenta eficaz para uma inclusão aceitável na sociedade. O objetivo deste trabalho foi conhecer os conceitos básicos do pensamento crítico e os diversos que são utilizados com esta população para desenvolvê-los. Um estudo descritivo e analítico foi realizado com a revisão documentada de vários artigos publicados a partir de fontes, bancos de dados e repositórios confiáveis. A partir dos resultados obtidos, foram conhecidas várias estratégias criativas aplicadas aos alunos com deficiência intelectual, o que lhes permite desenvolver várias competências e transferi-las para a resolução de problemas do cotidiano. Conclui-se que todas as pessoas, inclusive alunos com déficit intelectual, podem desenvolver o pensamento criativo com diversas estratégias para seu estímulo.

1. INTRODUCTION

The current challenge for teachers in the face of a globalized society is to manage a quality education by enhancing the development of creative thinking skills, which allow them to improve their academic performance in their social and professional life and enable them to solve problems. Context problems.

Creativity is a process of grouping and mixing components. The classrooms have an essential meaning for the environment of the daily teaching actions through various methods such as cooperative learning since learners are encouraged to help each other through questions and explain themselves, which promotes the faculty of the generation and exploration of opinions, an essential feature of this type of thinking (Segundo et al., 2020).

Currently, there have been various investigations related to creative thinking; such is the case of countries such as Japan that is at the forefront in this field, where creativity and innovation are articulated in a group way, using creativity to solve problems and innovation for its implementation, maintaining its potential and fostering its international competition, which provides answers for the benefit of all (López, 2020).

Similarly, in countries like Mexico, the relationship between creativity and economic progress has been demonstrated, with more excellent improvement being observed in developing countries (Villarreal et al., 2018). In Peru, economic growth allowed progress in creativity; however, there are still inequalities that have a lot to do with the financial aspect (Alfaro & Legonía, 2018).

In this context, the objective was to analyze the conceptual contributions of creative thinking and the various strategies carried out with students with intellectual disabilities to develop them for the benefit of themselves and society.

2. METHOD

To carry out this research, various bibliographic sources have been used in databases such as Google Scholar, Eric, Science direct, Ebsco, Pro-Quest, Dialnet, Scielo, referring to the subject of creative thinking and the various strategies that have been used in students with intellectual disability.

The methodology used was the inquiry into the information to be updated, excluding duplication. As inclusion criteria, the name of the article, abstract, methods, and that they have as object of study the students with intellectual disabilities were considered.

Table 1

Universe, axes and sub axes of study

Universe	Study axes	Sub axes (study units)
Strategies for the stimulation of creative thinking in students with intellectual disabilities	Conceptual bases of creative thinking	<ul style="list-style-type: none"> - Dexterity - Process - instrument - Competence - Cognitive element - Process - Mechanism - Condition - Brain behavior - Psychic function
	Strategies for the stimulation of creative thinking in students with disabilities	<ul style="list-style-type: none"> - Dramatic therapy workshops - Problem resolution - -Artistic workshops - Artistic education - Playful techniques - Multicultural dance education - Promotion of musical creativity - Environmental education

3. RESULTS

The detail of the previous table is presented.

3.1. Conceptual bases of creative thinking

Table 2

Systematization of information on creative thinking

Author / authors	Key considerations
Murcia et al. (2020).	Creativity is a very important skill for teaching in these times, it represents an important place when solving daily problems and adapting to changes.
Moura et al. (2021).	Creativity is a very useful instrument to satisfy the educational deficiencies of students, especially in today's society of constant changes and insecurity about tomorrow.
Salamanca and Badilla (2021)	Creative thinking is a cognitive element of man's creativity and his motivation is a priority in solving various problems.
Posligua et al. (2017)	Creativity is a process that brings with it a beginning that has a purpose that sees the advance and the detailed course of the student's progress.
Puertas (2016)	Creativity is the alternate path, it is building meanings alongside what is normal, it is adjacent to the ability to think that it will allow achieving equals.
Chaverra-Fernández et al. (2016)	Creative thinking is a significant mechanism for training. It aims for the student to acquire the faculty to face a wide diversity of circumstances that require creating options to solve it, communicate innovative opinions, and respond to various representations that arise.
Dogan et al. (2020)	Creative thinking is essential to adapt to continuously changing situations and to provide creative responses to various types of problems, especially at the scientific and technological level.
Hernández et al. (2018)	Creativity is the cerebral behavior that produces methods of seeking and discovering innovative and possible answers in various aspects of living.
Torres (2018)	Creativity is a highly appreciated condition, which must have the following peculiarities: be original and useful.
Ayllón et al. (2016)	Creativity is a primary force for thinking, it leads to activities being carried out or carried out far from the known.
Chrobak (2017)	Creativity is conceptualized as an individual or group action consigned to originate something new, currently it is related to the field of science.

Acosta (2016)	et al.	Creative thinking asks that people change their automatic way of thinking for a precise way and with full knowledge. An expression of people who seek a high level of obtaining meaningful teachings.
Chávez (2016)		Creativity is one of the higher-level psychic functions that most distinguish people from other living creatures.

Source: self-made

3.2. Strategies for the stimulation of creative thinking in students with disabilities

Strategy 1

The dramatic therapy workshops

These types of workshops help people with intellectual disabilities to develop creativity as it provides their progress on a social and emotional level. Art and disability are linked, although habitually and historically, the gaze has been focused on the difficulties at the biological level and the physical obstacles that can hurt their intervention totally in the cultural and artistic context, however, Through these enriching practices that are acquired from the encounter with creative activities, people with disabilities can enjoy a total insertion in the community (Gindrich & Ka, 2015).

Strategy 2

Problem-solving

This strategy is beneficial for students with special educational needs; it is the ability to increase creativity; those who acquire it are successful throughout all periods of their life, even when they face unknown problems since it will help them learn how to use a variety of innovative resources such as active cooperation, not just giving a single answer to face difficulties, but always maintaining positive attitudes (Eshrati et al., 2014).

Strategy 3

The artistic workshops

They allow the development of autonomy for creativity because the person is not seen because of their disability but with specific capacities that require support. Developing their creativity through art will allow them to project their horizons, improve their self-love, use their intrinsic means, know what they are like according to their standards, stimulate what is worth being in their community context. It helps them express what they like, what they prefer, their fears, and even what they need; it improves communication processes. It also allows them to

concentrate, experiment, be independent, disciplined, and take risks, in short, improving their quality of life (Alonso, 2016).

Strategy 4

Artistic education

This type of art enhances the plurality of culture, affection practices, skills related to the creation, imagination, and symbolization in students, which allows them to develop the reflective, critical, and visual sensitivities that they need to value extensions. Of the aesthetics and culture of their environment. Training in the visual arts plays a vital role in diversifying students' art learning. It fosters places to integrate different methodologies, express themselves, and interpret to understand the universe and integrate with others. In addition, through the various art forms, creative capacities are created that allow students to develop their mental abilities and help them learn other subjects (Cárdenas et al., 2017).

Strategy 5

Playful techniques

The game allows the learning sessions to be attractive and motivating; it includes the use of diverse concrete material and that through various options work with the student to train creative people, with skills to reason, to analyze and reflect, to achieve their learning and that it transfers and applies what they learned to solve difficulties in their daily experiences (Husada & Robert, 2019).

Strategy 6

Multicultural dance education

It implies the use of diverse skills through understanding the various creations of the cultures of the citizens to train the students to be instructed in the dance, which allows the collaboration of all the students and that achieves in them the learning of notions and experiences from other areas. The purpose of the dance is to help them have the independence to express themselves, motor tone, be creative, and interact socially. The synectic model is proposed through analogies that guide investigations creatively, understanding the meaning of either dance or other content that will help improve the intellectual and emotional process that arises when practicing, creating, and understanding some concept of dance (Masunah, 2016).

Strategy 7

Promotion of musical creativity

It highlights the contribution of gamification to encourage creativity in classrooms and foster a plan where students are encouraged to compete with each other while recognizing their achievements, stimulating interactively competing and cooperating by locating the student in a society of music seekers. This implies providing the student with various strategies such as giving them time to explore sounds, experiment without fear, take time to play and develop themselves, get out of their comfort zone, and encourage their creativity (Wong, 2021) .

Music constitutes a mechanism that reinforces the neurological progress of students with disabilities. Furthermore, with the various musical models, it is feasible to support the development of multiple psychomotor skills, have better precision when executing movements, and improve their creative potential (Tabarés, 2019).

Strategy 8

Environmental education

Through environmental education, family environments modify their household waste products, behaving in a receptive way when faced with the teachers' talks. The learning sessions reflect from an interdisciplinary approach the problems in their area, but also the educational paths for their solution. Students with intellectual disabilities show better attention and motivation in the face of developing topics. Being imaginative and creative, using the resources that are proposed to them, such as making various forms of art with agricultural waste, allow to raise the self-esteem of students with disabilities, contribute to cleaning up the environment, and raising awareness of the various needs (Coca et al., 2020).

4. DISCUSSION

Murcia et al. (2020) and Dogan et al. (2020) consider creativity as a fundamental skill for this time since it contributes to the solution of daily problems. In addition, it allows us to adapt to the changes that these times present, so we can consider creativity as an essential element in the person's development since it will enable them to acquire new knowledge and learnings, which will constitute new experiences different ways of seeing life.

This talent can be developed by all people, including those with intellectual disabilities; among the strategies that we have been able to investigate we have those proposed by authors such as Alonso (2016), Gindrich y Ka

(2015), Cárdenas et al. (2017), Masunah (2016) and Wong (2021) through: "Dramatic therapy workshops", "Artistic workshops", "Artistic education", "Multicultural dance", "Musical creativity", this demonstrates the significant relationship between art and the development of critical thinking, since through drama, visual arts, dance, and music, it allows them to improve their self-esteem, communication with the environment, socialize properly and acceptably include themselves.

This article is novel in the educational field since it reveals the various strategies that have been applied in other places and that have produced positive results to acquire the critical ability of creative thinking, even by students with intellectual disabilities, since it allows to be a valuable channel for the development of their potentialities, which will enable teachers and families to develop them and make said students productive and happy people.

There are various works, very novel and exciting. Still, they are little known because they demand the work of all those involved, so it is recommended that educators investigate these types of work more, disseminate it, and commit families to their application and improvement.

5. CONCLUSIONS

Creative thinking is the first step in discovering the world around us, producing ideas to solve the various problems in the context, and producing the satisfaction of being able to face life successfully.

We can all develop creativity to a greater or lesser degree, even in the case of students with intellectual disabilities, which will depend on the various strategies used, which will produce positive effects on their learning, help them improve communication, and socialize. Adequately, be productive, and be acceptably included in society.

It remains for those who have the laudable educational task to assign the importance to the development of creativity in all students, especially those who, due to their disability, have encountered many barriers in our context, but who, with the support of the various strategies for their stimulation, become in challenges and strengths for their full development in society.

Conflicto de intereses / Competing interests:

La autora declara que no incurre en conflictos de intereses.

Rol de los autores / Authors Roles:

No aplica.

Fuentes de financiamiento / Funding:

La autora declara que no recibió un fondo específico para esta investigación.

Aspectos éticos / legales; Ethics / legals:

La autora declara no haber incurrido en aspectos antiéticos, ni haber omitido aspectos legales en la realización de la investigación.

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