

# Neurodidactics and healthy physical condition: Proposal to improve educational inclusion

CRISTINA MARÍN PERABÁ<sup>1</sup> , MARÍA LUISA ZAGALAZ SÁNCHEZ<sup>2</sup>, CLAUDIA DE BARROS CAMARGO<sup>3</sup>, ANTONIO HERNÁNDEZ FERNÁNDEZ<sup>4</sup>

<sup>1</sup>University of Jaen. Jaen, Spain.

<sup>2</sup>University of Jaen. Jaen, Spain.

<sup>3</sup>University of FASIPE. Brazil.

<sup>4</sup>University of Jaen. Jaen, Spain.

## ABSTRACT

The aim of this study is to establish the link between healthy physical activity and neurodidactics to promote educational inclusion. In order to answer this objective, a sample of 289 postgraduate participants from the University of Jaén was selected. The research was descriptive, explanatory, and correlational. A Likert scale, constructed ad hoc, was used, and validated in content and construct through an exploratory factor analysis (EFA). The analysis of the correlation data, the descriptive data and the CFA show as main results the need to enhance knowledge in neurodidactics both in initial and continuous training, as well as to express the importance of scientific aspects in the educational system. In conclusion, following Arnaiz (2019, 2020) it is necessary a change in the orientation of inclusive ideas, since currently, it is still confused with integration, so it is necessary to reflect on what has been done in teacher training years ago. In relation to healthy physical condition, the need for it is admitted, but not that it is essential, leaving unclear the relationship with educational inclusion or with neurodidactics.

**Keywords:** Physical education, Special needs education, Special schools, Social integration, Sport.

### Cite this article as:

Marín Perabá, C., Zagalaz Sánchez, M. L., De Barros Camargo, C., & Hernández Fernández, A. (2023). Neurodidactics and healthy physical condition: Proposal to improve educational inclusion. *Journal of Human Sport and Exercise*, 18(4), 893-902. <https://doi.org/10.14198/jhse.2023.184.13>



**Corresponding author.** University of Jaen. Jaen, Spain. <https://orcid.org/0000-0002-1329-9203>

E-mail: [cmp00058@red.ujaen.es](mailto:cmp00058@red.ujaen.es)

Submitted for publication June 12, 2023.

Accepted for publication June 16, 2023.

Published October 01, 2023 (*in press* July 13, 2023).

JOURNAL OF HUMAN SPORT & EXERCISE ISSN 1988-5202.

© Faculty of Education. University of Alicante.

doi:10.14198/jhse.2023.184.13

## INTRODUCTION

Several studies describe that the most relevant issues in school settings are the scarcity of physical activity and lack of inclusion (Kotaman & Evran, 2021; Zabeli, Kaçaniku & Koliqi, 2021). It is the function of educational centres to contemplate the needs and interests at the curricular level of all students in the centre, and not only that, it is also their mission to promote the continuous strengthening of the physical well-being of students, since among the social problems is childhood obesity, and therefore it is an issue of interest to work from educational institutions (Norris & Van Steen, 2020). For these reasons related to the quality of education, neurodidactics as a union of neurosciences and education, facilitates the understanding of the neural activity of students to teachers, in order to improve individualized attention at school (Rueda, 2020).

### **Neurodidactics**

Neurosciences have been advancing over the years. In 1990, a new knowledge about the way of working in education began, based on the analysis of the abilities of the brain, since in research education and the brain are topics that have to go hand in hand, since the advances made at the level of the brain have to directly influence education. From this new knowledge arose neurodidactics in which brain competencies are used to provide teachers with different teaching strategies (Pinto, 2021). Neurodidactics (Ramos & San Andrés, 2019) is a branch of pedagogy that is based on neural sciences to guide education. Its purpose is to search for the most effective didactic strategies and tools to promote a better teaching-learning process and therefore, a better brain development. This means that the teacher must be able to create sufficient synapses, with their respective neuronal connections, promoting brain connections, thus making it possible to adequately respond to the diversity of the students, and therefore inclusive education (Briones, 2021). Thanks to neurodidactics, it is possible to interpret the activities and connections that exist at brain level, in order to know if a student understands the explanations of the teacher and internalizes them, or if, on the contrary, he/she listens to us, but his/her brain organization does not allow him/her to understand his/her teachers, since in society there is a diversity of brain organizations (Rueda, 2020).

### **Healthy physical condition**

In the history of humanity, physical activity and physical condition have always been present in all human activities, since for many centuries the lifestyle included physical activities that allowed people to subsist. However, with the passage of time and technological advances, physical activity has been diminished, resulting in sedentary lifestyles or physical inactivity, leading to increased mortality (Alotaibi, Almuhanha, Alhassan, Alqadhib, Mortada, & Alwhaibi, 2020). The concept of health, (understanding by health that which is not only the psychological and biological sphere, but it also includes the plane of well-being and social conditions of people) has always been linked to the realization of physical activity, for its benefits derived from the practice (Neve, Hothersall & Rodrigues, 2019).

The promotion of a healthy physical condition is nowadays a matter of interest for society, thus promoting healthy lifestyle habits and the practice of physical activity and/or sport. Aspects that are of fundamental interest in the educational environment, since the school is an essential space committed to the prevention of overweight and obesity, thus providing an adequate quality of life (Vaquero, Iglesias, Tapia, Pulido, & Sánchez, 2020). The school education stage (Moral, Urchanga, Ramos, & Maneiro, 2020) is the best time for the promotion of healthy habits, since the student will take them as usual practices for the rest of his or her life. Regarding healthy physical condition during the school stage (Zamorano, Fernández & Váñez, 2021), the daily practice of physical activity directly influences the academic performance of students, obtaining benefits after practicing sports in attention, working memory, inhibitory control, or greater connection of

neurons in the brain. On the contrary, if there is a lack of physical practice, sedentary lifestyles are promoted and, consequently, academic performance is reduced.

### ***Educational inclusion***

Social inclusion is seen as a process in which people with social risks or exclusions have the necessary tools to participate in social, economic, and cultural life (Wright, Meyer, Reay & Stagg, 2020).

In the field of inclusion, educational inclusion can also be distinguished as that which arises from exclusion and educational inequalities. School inclusion, which helps to provide a more developed and fairer society, as education is not the only area where inclusion has to be worked on but ensures that the limitations of education are removed (Scwab, Zurbriggen & Venetz, 2020; Qvortrup & Qvortrup, 2017).

Inclusive education (Qvortrup & Qvortrup, 2017) is proposed to guarantee access to quality education with equal opportunities for all children with or without functional diversity. To this end, the barriers that prevent access to quality education must be removed, overcoming discrimination and school exclusion. In short, a school with quality inclusive practices is one that takes into account the educational needs of all its students.

In relation to physical activity at school (Pocock & Miyahara, 2017) each student is different, with diverse physical, cognitive, emotional or social abilities and needs, so all students have the same right to take advantage of physical activities, regardless of their abilities, although removing those barriers of different kinds that hinder access to inclusive physical activity.

## **METHODOLOGY**

### ***Material and methods***

The problem that manifests itself in this research is the following: Do healthy physical condition and neurodidactics allow the development of educational inclusion? The general objective is framed to establish the link between healthy physical condition and neurodidactics to promote educational inclusion. From this main objective, new specific objectives originate:

1. 1.- To identify the particularities of neurodidactics that allow for meaningful learning.
2. 2.- To define the characteristics of educational inclusion.
3. 3.- To analyse the factors that generate a healthy physical condition.

### ***Research design***

This research study was carried out by collecting data through the Likert scale instrument and then analysing these data with the SPSS v.25 statistical software program. The research is non-experimental, exploratory, descriptive, and correlational, and has a quantitative methodology.

### ***Population and sample***

In this research we have taken as participants a population of 300 students of the master's degree in teaching Compulsory Secondary Education. These students belong to the University of Jaen (Spain) for the 2020/2021 academic year, and of which, taking into account absences, we finally have a sample of 289 students in total, of which 61 are men and 228 are women.

### ***Instrument***

To collect the research data, an operationalization matrix was designed bringing together variables, items, and units of measurement (Bhushan & Alok, 2017). This operationalization matrix was finally used to

construct a Likert scale with a total of 32 items, distributed in four variables, and discussed throughout this research. Each of the items have been answered by our sample of learners, through response options: 1.- strongly disagree, 2.- disagree, 3.- indifferent, 4.- agree and 5.- strongly agree (Alan & Atalay, 2020).

### ***Dimensions and variables***

For the elaboration of the dimensions, a literature review of the topics of interest was carried out, serving as a model for the elaboration of the Likert scale: A.- Neurodidactics, B.- Educational inclusion and C.- Healthy physical condition.

Therefore, the variables are of two types:

- Independent variables: neurodidactics and healthy physical condition.
- Dependent variables: educational inclusion.

### ***Procedures***

The procedure for this research was carried out in several phases. First, consent was requested from those responsible for the University of Jaen in order to be able to count on the participation of our research sample. Subsequently, the study subjects signed an informed consent in which the bases and object of the study were included, as well as the dangers and advantages of carrying out the research. Finally, a Likert-type scale was constructed, with an operationalization table where specific objectives and dimensions were contrasted to obtain the different items.

## **RESULTS**

### ***Content validity***

First, content validity was performed by authorized doctors from different university institutions to carry out this assessment (Bahri, 2019). For this, the Knowledge or Information Coefficient (Kc) and the Argumentation Coefficient (Ka) were calculated and followed with the value of the Competence Coefficient (K) with the purpose of determining which doctoral experts were taken into account to work in said study, obtaining a total of fifteen experts with an average K of 0.9, which evidences a high level of competence. After analysing the validation questionnaires, a pilot test was carried out on a group of the sample to review the difficulties in understanding the questionnaire, determine the questions that generated doubts, etc., using the checklist (Iraossi, 2006). This pilot test was successful, since the results were satisfactory, and the instrument was considered validated in its content.

### ***Reliability***

To analyse the reliability of the instrument, the Cronbach's Alpha coefficient is performed following George and Mallery (2003), which shows a high internal consistency in the set of 24 items presenting a value of  $\alpha = 0.91$ , a value that is determined as excellent.

### ***Kolmogorov-Smirnov test***

To analyse normality, the Kolmogorov-Smirnov test is selected, after which it is shown that the null hypothesis must be rejected, concluding that the data do not follow a normal distribution. Indeed, the following alternative hypothesis is determined: H1.-Healthy physical fitness with the help of neurodidactics develops an inclusive school.

### ***Spearman's Rho correlation***

Since the normality of the data is not met, Spearman's Rho correlation is used.

Analysing the items of the study, the significant correlation (.01) is between some of the following most representative variables of the research:

A1 → A6 (0.87)

A1.-Neurodidactics addresses the needs and potential of brain functioning for more effective learning.

A6.-In neurodidactics, knowing how a student's brain works is useful to awaken interest in learning.

A7 → A8 (0.80)

A7.-Neurodidactics allows personal diversity in the learning process.

A8.-Teachers' knowledge of neurodidactics for good pedagogical practice will facilitate the synapse of the students' neuronal networks and, therefore, significant learning will have been achieved.

B9 → B13 (0.70)

B9.-Educational inclusion means taking into account the needs and peculiarities of each student.

B13.-In inclusive teaching, attention is paid to the construction of learning itself, increased by interaction with others.

B11 → B14 (0.62)

B11.-School inclusion implies only the existence of a student with functional diversity in the classroom sharing space with the rest of his/her peers.

B14.-In an inclusive quality education, the role of the family or society can be dispensed with, since only the action of the teacher and the rest of the educational community that concerns the educational centre is necessary.

C17 → C18 (0.70)

C17.-Healthy physical condition requires energy, vitality, daily chores, active leisure, etc.

C18.-Healthy physical condition is necessary for good school performance.

C22 → C23 (0.70)

C22.-In order to achieve a good healthy physical condition at school, students must be participative, capable of investigating or inquiring, creating their own learning as an active subject.

C23.-Good physical fitness in school environments can be acquired by promoting motor activities that involve the participation and commitment of all students.

Similarly, other significant correlations were obtained between different dimensions of the study:

A1 → C17 (0.64)

A1.-Neurodidactics addresses the needs and potential of brain functioning for more effective learning.

C17.-Healthy physical condition requires energy, vitality, daily chores, active leisure, etc.

In this correlation between two items, respondents who indicate that neurodidactics addresses the needs and potential of brain functioning for more effective learning also point out that healthy fitness requires having vitality energy, doing daily chores, active leisure, etc.

B13 → A6 (0.59)

B13.-In inclusive teaching, attention is paid to the construction of learning itself, increased by interaction with others.

A6.-In neurodidactics, knowing how a student's brain works is useful to awaken interest in learning.

In this case, the research subjects who indicate that, in inclusive teaching, attention is paid to the student's own construction of learning increased by interaction with others, also point out that, in neurodidactics, knowing how a student's brain works is useful to awaken interest in learning.

C19→ B9 (0.54)

C19.-Healthy physical condition is related to daily physical practices with the objective of developing a low risk of diseases derived from sedentary lifestyles.

B9.-Educational inclusion means taking into account the needs and peculiarities of each student.

In this correlation, respondents who believe that healthy physical condition is related to daily physical practices with the aim of developing a low risk of diseases derived from sedentary lifestyles, also believe that educational inclusion means taking into account the needs and peculiarities of each of the students.

### ***Descriptive statistics***

Dimension A (Neurodidactics): The subjects participating in this study disagree that neurodidactics is of little relevance for meaningful learning in the classroom ( $\bar{X} = 2.9$ ). However, they agree that teachers' knowledge of neurodidactics for good pedagogical practice will facilitate the synapses of neural networks of students and therefore meaningful learning will have been achieved ( $\bar{X} = 4.0$ ).

Dimension B (Educational inclusion): The respondents strongly disagreed that in a quality inclusive education, the role of the family or society can be dispensed with, since only the action of the teacher and the rest of the educational community concerning the educational centre is necessary ( $\bar{X} = 1.5$ ). On the other hand, they agree that continuous teacher training is one of the key elements for quality inclusive education ( $\bar{X} = 4.4$ ).

Dimension C (Healthy physical condition): The surveyed students respond in agreement that healthy physical condition is related to daily physical practices with the objective of developing a low risk of diseases derived from sedentary lifestyles ( $\bar{X} = 4.2$ ), as well as that healthy physical condition is necessary for good school performance ( $\bar{X} = 4.0$ ).

### ***Construct validity***

The construct validity will be carried out through exploratory factor analysis (EFA). The factor analysis technique applied is established in the following stages (Díaz de Rada, 2002):

#### ***Correlation matrix study***

It is necessary to study the correlation matrix to check whether the data are adequate to perform a PFA. To this end, the matrix must have a certain structure, which will be studied using Bartlett's test of sphericity and the Kaiser-Meyer-Olkin index.

#### ***Bartlett's Test of sphericity***

To check whether the correlation matrix is an identity matrix, i.e., that the intercorrelations between the variables are zeros, Bartlett's test of sphericity is used, which consists of an estimation of  $\chi^2$  from a transformation of the determinant of the correlation matrix. If the variables are not intercorrelated, then Bartlett's test of sphericity must present a value (significance) higher than the 0.05 limit. In this case this

analysis presented a significance much lower than the .05 limit, since it was .000 (gl 190, Approx. Chi2 7795.526, which indicates that the data matrix is valid to continue with the factor analysis process.

#### *Kaiser-Meyer-Olkin index*

To check this, the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO coefficient) has been used, in this case the value is 0.710, following Kaiser (1974) the value is medium, so we continue with the analysis.

#### *Extraction of communalities*

The communalities analysis showed that the factors have a value greater than 0.630, so it is not necessary to eliminate any item from the factor analysis.

The best represented items according to their communality value are:

(0.944)-B13.- In inclusive teaching, attention is paid to the own construction of learning increased by interaction with others.

(0.922)-B11.- School inclusion implies only the existence of a student with functional diversity in the classroom sharing space with the rest of his/her peers.

(0.916)-B12.- Educational inclusion implies the flexibilization of curricular content when necessary.

According to the value of communality, the worst represented items are:

(0.630)-B10.- Inclusion and integration are synonymous words.

(0.661)-C18.- Healthy physical condition is necessary for good school performance.

Factor extraction: Varimax rotation was performed, studying the accumulated percentage.

It can be concluded that the first six factors explain 82.991% of the accumulated variance.

Table 1. Initial eigenvalues.

| Component | Total  | % of variance | % accumulated | Total  |
|-----------|--------|---------------|---------------|--------|
| 1         | 10.564 | 44.018        | 44.018        | 10.564 |
| 2         | 2.943  | 12.262        | 56.281        | 2.943  |
| 3         | 2.556  | 10.651        | 66.931        | 2.556  |
| 4         | 1.629  | 6.787         | 73.718        | 1.629  |
| 5         | 1.181  | 4.920         | 78.639        | 1.181  |
| 6         | 1.045  | 4.353         | 82.991        | 1.045  |
| 7         | .891   | 3.714         | 86.705        |        |

#### *Study of factor scores*

The study of the component matrix allows us to extract the items corresponding to the different factors. The distribution of items according to the highest level of saturation by factors, eliminating factors with less than three items, is as follows:

Items integrated in Factor I.:

- Dimension A (Neurodidactics): A1, A2, A3, A4, A6, A7, A8.
- Dimension B (Educational inclusion): B10, B12, B13, B14, B15, B16.
- Dimension C (Healthy physical condition): C17, C18, C19, C20, C21, C22, C23, C24.

We calculated Cronbach's alpha for factor 1: 0.924 (21 items), an "excellent" rating, confirming that the construct is good, and that we can reduce the scale by four items with a reliability similar to the original.

## DISCUSSION

The research shown here was carried out on a sample of 289 students of the master's degree in teaching at the University of Jaén. The results collected serve as an opening for further research in the field of neurodidactics, healthy physical condition, and inclusion, so this study is open to changes in order to further investigate to improve the intervention and attention to students with functional diversity. Therefore, it would be convenient to carry out this same research with students from other masters related to education, with students of Primary Education or Early Childhood Education, and even among other universities, in order to collect results at different levels and degrees of universities.

The Likert-type scale, constructed ad hoc, has been validated both in content and construct, so we have an optimal research instrument. The results obtained with this instrument allow us to say that, for the sample studied, neurodidactics is not very relevant, that continuous teacher training is key for educational inclusion and that healthy physical condition is necessary for good school performance, although not essential. Thus, the most important limitation of this study arises, the type of relationship that exists between neurodidactics, educational inclusion and healthy physical condition, which will be the subject of another investigation. On the other hand, with the AFE we can verify that the ideas that have more weight on the scale are: educational inclusion as flexibilization of content, educational inclusion as the existence of a student with functional diversity in a classroom, and finally the identification of inclusive teaching with the construction of learning itself. As we can see, inclusion continues to be confused with integration or that inclusion is reduced to curricular content, which is reaffirmed by the fact that the idea that inclusion equals integration has little weight.

## CONCLUSION

The research presented here is based on the problem: do healthy physical condition and neurodidactics allow the development of educational inclusion? The answer is concluded from the analysis of the data obtained. Neurodidactics is not considered a key factor in educational centres, while educational inclusion is considered similar to educational integration, so that, up to this point, it is difficult to give a positive answer to the problem posed. There is a clear need to enhance knowledge in neurodidactics both in initial and continuing education, and to show the importance of scientific aspects in the educational system. Similarly, following Arnaiz (2019, 2020), a change in the orientation of inclusive ideas is necessary, since to date, it is still confused with integration, so we must reflect on what has been done in teacher training years ago. In relation to healthy physical condition, the need for it is admitted, but not that it is essential, leaving unclear the relationship with educational inclusion or neurodidactics.

## AUTHOR CONTRIBUTIONS

All the people who are recorded as authors in this work have met the criteria of authorship. Thus, the theoretical framework has been elaborated by Claudia de Barros and María Luisa Zagalaz. Moreover, the methodology has been designed in cooperation between Cristina Marín and Antonio Hernández. The discussion and conclusions were worked by Claudia de Barros, Cristina Marín and María Luisa Zagalaz. The abstract was developed by Cristina Marín. Finally, the review of the work has been carried out by Antonio Hernández.

## SUPPORTING AGENCIES

No funding agencies were reported by the authors.

## DISCLOSURE STATEMENT

No potential conflict of interest were reported by the authors.

## REFERENCES

- Alan, Ü., & Atalay, K. (2020). Effect of number of response option on the psychometric properties of Likert-type scales used which children. *Studies in Educational Evaluation*, 66, 1-8. <https://doi.org/10.1016/j.stueduc.2020.100895>
- Alotaibi, T., Almuhan, R., Alhassan, J., Alqadhib, E., Mortada, E., & Alwhaibi, R. (2020). The relationship between Tchnology Use and Physical Activity among Typically-Developing Children. *Healthcare*, 8(4), 1-14. <https://doi.org/10.3390/healthcare8040488>
- Arnaiz, P. (2019). La educación inclusiva en el siglo XXI. Avances y desafíos. Murcia: UM.
- Arnaiz, P. (2020). ¿Es posible una enseñanza 100% equitativa? Laverdad.es, octubre, 2020.
- Bahri, M. S. (2019). ABC of Content Validation and Content Validity Index Calculation. *Education in Medicine Journal*, 11(2), 49-54. <https://doi.org/10.21315/eimj2019.11.2.6>
- Bhushan, S., & Alok, S. (2017). *Handbook of research methodology. A compendium for scholars & researchers*. Educreation Publishing.
- Briones, G. (2021). Estrategias neurodidácticas en el proceso de enseñanza-aprendizaje de educación básica. *ReHuSo: Revista de Ciencias Humanísticas y Sociales*, 6(1), 56-64.
- Chandler, J.P., & Greene, J.L. (1995). A statewide survey of adapted physical education service delivery and teacher in-service training. *Adapted Physical Activity Quarterly*, 12(3), 262-274. <https://doi.org/10.1123/apaq.12.3.262>
- Díaz de Rada, V. (2002). *Problemas originados por la no respuesta en investigación social: definición, control y tratamiento*. Pamplona: UPN.
- George, D., & Mallery, P. (eds.) (2003). *SPSS for Windows step by step: A simple guide and reference. 11.0 update (4th ed.)*. Allyn & Bacon.
- Iraossi, G. (eds.) (2006). *The power of survey desing: A user's guide for managing surveys, interpreting results, and influencing respondents*. The World Bank. <https://doi.org/10.1596/978-0-8213-6392-8>
- Kotaman, H., & Evran, D. (2021). Impact of physical exercise on teacher candidates academic learning performance and state motivation. *Learning and Motivation*, 73, 1-9. <https://doi.org/10.1016/j.lmot.2021.101709>
- Kraft, V. (2012). Neuroscience and Education: Blind Spots in a Strange Relationship. *Philosophy of Education*, 46(3), 386-396. <https://doi.org/10.1111/j.1467-9752.2012.00868.x>
- Moral, J. E., Urchanga, J. D., Ramos, A. J., & Maneiro, R. (2020). Relationship of Parental Support on Healthy Habits, School Motivations and Academic Performance in Adolescents. *International journal of environmental research and public health*, 17(3), 1-15. <https://doi.org/10.3390/ijerph17030882>
- Neve, H., Hothersall, E., & Rodrigues, V. (2019). Exploring threshold concepts in population health. *The clinical teacher*, 17(3), 292-297. <https://doi.org/10.1111/tct.13087>
- Norris, E., Van Steen, T., Direito, A., & Stamatakis, E. (2020). Physically active lessons in schools and their impact on physical activity, educational, health and cognition outcomes: a systematic review and meta-analysis. *British journal of sports medicine*, 54(14), 826-838. <https://doi.org/10.1136/bjsports-2018-100502>

- Pinto, C. (2021). La neurociencia para la inclusión en contextos pluriculturales. *Revista Internacional de apoyo a la inclusión, logopedia, sociedad y multiculturalidad*, 7(1), 1-8. <https://doi.org/10.17561/riai.v7.n1.1>
- Pocock, T., & Miyahara, M. (2018). Inclusion of students with disability in physical education: a qualitative meta-analysis. *International Journal of Inclusive Education*, 22(7), 751-766. <https://doi.org/10.1080/13603116.2017.1412508>
- Qvortrup, A., & Qvortrup, L. (2017). Inclusion: Dimensions of inclusion in education. *International Journal of Inclusive Education*, 22(7), 803-817. <https://doi.org/10.1080/13603116.2017.1412506>
- Ramos, A. M. & San Andrés, E. (2019). Neurodidáctica y competencias emocionales de estudiantes de educación general básica. *Revista Interdisciplinaria de Humanidades, Educación, Ciencia y Tecnología*, 6(1), 16-29. <https://doi.org/10.35381/cm.v5i1.237>
- Rueda, C. (2020). Neuroeducation: Teaching with the brain. *RCUB*, 1(1), 108-113. <https://doi.org/10.1344/ioned.v1i1.31657>
- Schwab, S., Zurbruggen, C. L. A., & Venetz, M. (2020). Agreement among student, parent and teacher ratings of school inclusion: A multitrait-multimethod analysis. *Journal of School Psychology*, 82, 1-16. <https://doi.org/10.1016/j.jsp.2020.07.003>
- Vaquero, M., Iglesias, D., Tapia, M. A., Pulido, J. J., & Sánchez, P. A. (2020). School-based Physical Activity Intervention in Children and Adolescents: A systematic Review. *International journal of environmental research and public health*, 17(3), 1-31. <https://doi.org/10.3390/ijerph17030999>
- Wright, A. L., Meyer, A. D., Reay, T., & Staggs, J. (2020). Maintaining Places of Social Inclusion: Ebola and the Emergency Department. *Administration Science Quarterly*, 60, 371-410. <https://doi.org/10.1177/0001839220916401>
- Zabeli, N., Kaçaniku, F., & Koliqi, D. (2021). Towards the inclusion of students with special needs in higher education: Challenges and prospects in Kosovo. *Cogent Education*, 8(1), 1-20. <https://doi.org/10.1080/2331186X.2020.1859438>
- Zamorano, D., Fernández, J. G., & Váñez, J. P. (2021). Diseño y evaluación de un programa para la mejora de la condición física en Educación Primaria: efecto sobre la autoestima y la intención de ser activo. *SPORT TK-Revista EuroAmericana de Ciencias del Deporte*, 10(1), 107-112. <https://doi.org/10.6018/sportk.461721>



This work is licensed under a [Attribution-NonCommercial-NoDerivatives 4.0 International](https://creativecommons.org/licenses/by-nc-nd/4.0/) (CC BY-NC-ND 4.0).