

Giftedness and YouTube® livestream in the pandemic period: a systematic review



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Abstract

The livestreams became very popular during the pandemic period, with numerous invitations to broadcast on a wide variety of topics, including giftedness, leading academic interest in this new event format. Thus, this article aims to present what was broadcast in livestreams about giftedness during the pandemic period (2020-2022), on YouTube®, through a systematic review search. The results found were 22 videos related to more introductory themes to giftedness and other approaches, such as parenting, acceleration, mathematics, giftedness and autism, and over-excitability. To conclude, although the introductory themes to giftedness were more frequent, the livestreams played an important role of information for teachers and professionals to know the theme, even if previously.

Keywords

live stream; giftedness; teacher training; YouTube livestreams.

Altas capacidades e as lives do YouTube® no período da pandemia: uma revisão sistemática

Resumo

As lives tornaram-se muito populares no período pandêmico, com numerosos convites para transmissões sobre os mais diversos temas, inclusive, sobre as altas capacidades, fazendo com que o interesse acadêmico se voltasse para esse novo formato de evento. Desse modo, este artigo se propõe a apresentar o que foi transmitido em lives sobre as altas capacidades durante o período da pandemia (2020-2022), no YouTube®, por meio de pesquisa sistemática. Os resultados encontrados foram 22 vídeos relacionados a temas mais introdutórios às altas capacidades e outras abordagens, como a parentalidade; a aceleração; a matemática; as altas capacidades e o autismo; e a sobre-excitabilidade. Conclui-se que, apesar de temas mais introdutórios às altas capacidades terem sido mais incidentes, as lives cumpriram importante papel de informação para docentes e profissionais conhecerem a temática, mesmo que previamente.

Palavras-chave

live; altas capacidades; formação docente; *lives* no YouTube.



Altas capacidades y transmisiones en directo en YouTube® en el periodo pandémico: una revisión sistemática

Resumen

Las transmisiones en directo se popularizaron durante el período pandémico, con numerosas invitaciones para transmisiones sobre los más diversos temas, incluyendo las altas capacidades, despertando así el interés académico por este nuevo formato de evento. De esta manera, el presente artículo propone presentar lo que fue transmitido en las transmisiones en directo sobre las altas capacidades durante el período pandémico (2020-2022), en YouTube®, mediante una investigación sistemática. Los resultados encontrados fueron 22 videos relacionados con temas más introductorios a las altas capacidades y otros abordajes, como la parentalidad; la aceleración; las matemáticas; las altas capacidades y el autismo; y la sobre excitabilidad. Se concluye que, aunque los temas introductorios a las altas capacidades hayan sido más incidentes, las transmisiones en directo tuvieron un importante rol de información para que profesores y profesionales conocieran al tema, aunque previamente.

Palabras clave

transmisiones en directo; altas capacidades; formación de profesores; transmisiones en directo en YouTube.

1 Introduction

With the beginning of Covid-19 virus, on March 11, 2020, the World Health Organization (WHO) declared a global pandemic, impacting the whole world. In Brazil, through Opinion nº 9/2020, a public health emergency was declared due to the high infection of the virus, which presented a clinical picture with asymptomatic infections, or severe cases, requiring social distancing, hygiene and use of masks. Due to the seriousness of the scenario, classes were interrupted and work began to be carried out at home using the home office model.

On March 17 of the same year, Ordinance No. 343, of the Ministry of Education (MEC), proclaimed the replacement of in-person classes for remote ones (online). According to the language of the internet, the expression *live* came to characterize/mean live transmissions, carried out on social networks or other streaming platforms, such as, for example, YouTube®. The *lives* were carried out in a simple and agile way, normally with no limit on duration or number of viewers, having become a convenient and advantageous option for broadcasting content, which could even be stored in channels created on YouTube® itself.

The YouTube® is a *streaming* platform for sharing content, videos, through the continuous transfer of data over the internet. It was created in 2005 and gradually gained supporters and conquered its space, becoming the most used video site worldwide and the second with the most access and search, behind only Google (DOLCEMÁSCOLO, 2022). In addition, it has a total of two billion users and is present in 91 countries and available in 80 languages. The platform has been widely used for work, for example, by digital content producers (DOLCEMÁSCOLO, 2022).

The *lives* became very popular during the pandemic period, with numerous invitations that soon aroused academic interest in this new event format, such as Falandes and Renó (2022), who investigated pandemic productions of 360-degree videos on YouTube® and, as a result, found that Brazil was the country with the highest number of published works, evidencing a prominence of companies and professionals specialized in the content creation, while the press vehicles appeared timidly.

Demartini and Lara (2022) also investigated some social transformations arising from the pandemic context, seeking to find out what were the resources and/or tools that Elementary School teachers used in remote teaching of Mathematics, noting that the resources and/or tools most used by teachers were: Geogebra (*software* used to teach geometry and equations), websites for games, exercises and simulations, YouTube®, Jamboard (a kind of virtual board) and videoconferencing platforms for communication with students. They found, however, that some teachers were not used to technologies, who learned to manipulate them quickly and urgently. According to Falandes and Renó (2022), the pandemic boosted contact with technologies, but not everyone was prepared for this sudden change. Tardin and Romero (2022, p. 14) point out: “[...] the pandemic has exposed numerous shortcomings in the field of education in Brazil, both in terms of training new teachers and in basic education itself”.

With regard to *lives* related to giftedness¹, it should be mentioned that there is a diversity of terminologies to refer to people who have above-average potentials (RANGNI; COSTA, 2011), however, regardless of the term adopted, people with high abilities are defined as those who demonstrate a high potential in any of the following

¹ Term used in the text according to Benito (2009), Perales, González and Martínez (2019) and Sierra et al. (2013). Brazilian legislation adopts the terminology “high abilities or giftedness” (BRASIL, 1996).

areas, isolated or combined: intellectual, academic, leadership, psychomotricity, creativity and arts (BRASIL, 2008).

Pérez (2003) discuss about the lack of teachers and principals' interest in the subject and their students with high abilities, underreporting them, which can be caused by lack of knowledge of the subject, ideas or understandings of common sense, arising from myths and stereotypes. The Information Network on Education in Europe (EURYDICE, 2008) declares the importance of training teachers to work with these students since initial training and emphasizes that one should examine how this training takes place, since future teachers will be able to or not to favor the students' development. About this, Soares (2020) argues that the responsibility for training cannot be individual, but collective, adding to the training institutions.

Thus, the research problem was formulated, namely: what teachers or professionals were looking for about giftedness in the lives broadcast on the YouTube® platform during the period of social isolation and if they were configured as continuous teaching training for these professionals. This article aims to present what was broadcast on YouTube® lives about giftedness during the pandemic period (2020-2022).

2 Methodology

The research is based on a systematic review, with a qualitative and descriptive analysis of the results obtained. Systematic reviews are a kind of research that uses the literature about a given topic as a source of data, providing a summary of evidence related to a specific intervention strategy through the application of explicit and systematized methods of searching, critically evaluating and synthesizing the findings selected information, whose essential criteria is that at least two researchers must be involved in the process of screening and data extraction (DONATO, H.; DONATO, M., 2019; SAMPAIO; MANCINI, 2007).

To this end, searches were carried out for *lives* related to the theme of giftedness on YouTube®. The choice of this platform is justified by the fact that it is free and very popular in different age groups (FALAVINA, 2021).

The selection criteria were established in seven, initially: I) the transmission should be live; II) be related to giftedness; III) be in Portuguese and in a Brazilian context;

IV) have at least two people as speakers (mediator and speaker); V) have been carried out during the pandemic period (March/2020 to June/2022); VI) the videos should have one or more of the keywords in the title and/or description, namely: live; high skills; giftedness; high abilities/giftedness; high abilities or giftedness; allocation; talent; endowment and talent, high capacities; and, finally, VII) if the videos did not present some important information in the title or description, such as the theme and name of the speakers, it would be necessary to watch only a few initial minutes of the *live* in order to capture this information. However, during the searches, we identified the need to add two new criteria: VIII) the *lives* should be found by the two researchers in charge of the searches, due to the difference in countries where they were located, Brazil and Spain²; due to different locations and different “Internet Protocols” (IP), and the results are biased (based on algorithms). The algorithm has two main objectives: to help users find relevant content according to their interests and to make them spend as much time as possible on the platform, engaging in a greater number of videos with similar content (LANIUS, 2022), that is, from previous views, it points you to new similar content.

In systematic review searches, an exhaustive search in the relevant literature of the investigated area is indicated (DONATO, H.; DONATO, M., 2019), however, in the case of a search on a platform such as YouTube®, where the results are countless, we established the ninth criterion: IX) the exploration of the videos would take place until the fiftieth video.

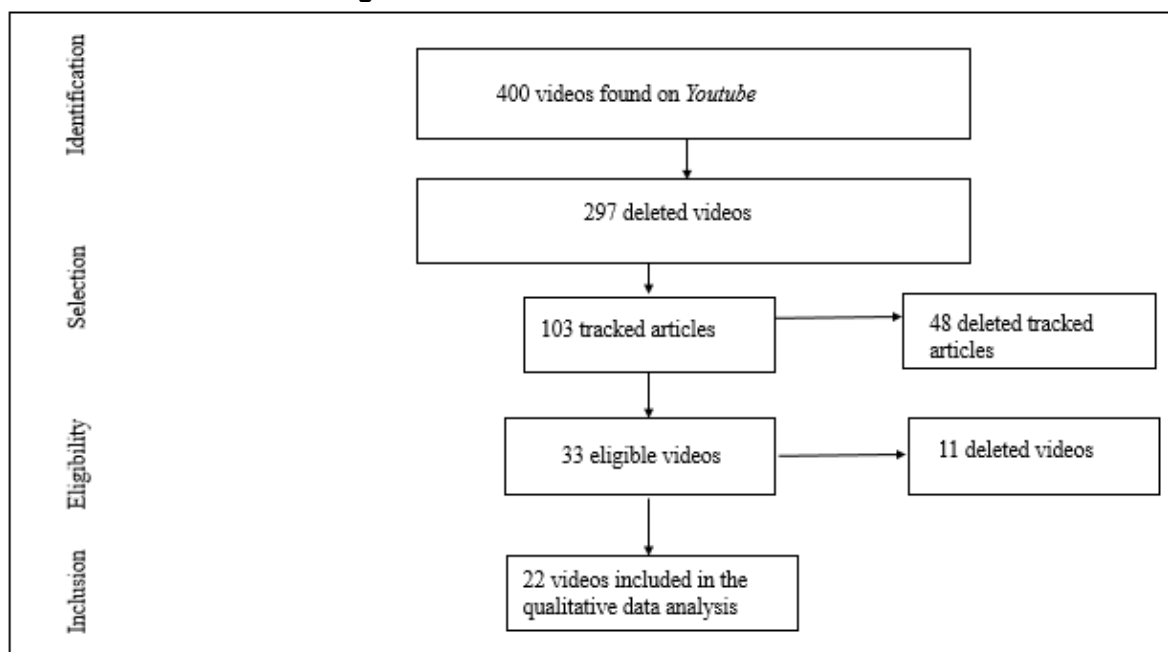
Due to the existing terminological diversity in the area of giftedness, the following *strings*³ were used in the searches: *live* high skills; *live* giftedness; *live* high abilities/giftedness; *live* high abilities or giftedness; *live* endowment; *live* talent; *live* endowment and talent; and *live* high capacities. For this process, the Prisma information flow model, by Moher et al. (2015), a tool that helps to present data from systematic reviews and meta-analyses.

Data treatment used a qualitative approach, as it is the most suitable for research with delimited groups or segments, social stories from the actors' perspective, relations and analysis of documents and discourses (MINAYO, 2010). The paths followed for the final selection of videos are illustrated in Figure 1.

² However, it should be noted that the surveys took place in the same period, comprising the months of May, June and July 2022.

³ Terminology by Costa and Zoltowski (2014).

Figure 1 – Lives results found on YouTube®



Source: Made by the authors (2022).

There was a considerable amount of videos (400). According to the inclusion criteria, 22 were elected, and for this eligibility, all *lives* were reviewed and exposed in the topic of results and discussion.

3 Results and discussion

Searches for *lives* about high giftedness on the YouTube® platform resulted in 22 findings, shown in Table 1.

Table 1 – Videos found on the YouTube® platform

(to be continued)

Title	Participants	Channel	Views
<i>Live</i> with Susana Pérez about high abilities/giftedness	Susana Perez and Simone	Simone Neuropsychopedagogue	770
<i>Live</i> : Giftedness and high abilities	Dayse Serra and Cristiane Feital	CCEDUC Educational Workshop	27
CASIES/NAAHS - <i>Live</i> : High skills/giftedness with Dr. Angela Virgolim	Virgolim and Secretary	Casies Mato Grosso	1.231
<i>Live</i> - High skills/giftedness	Aline Bernadino, João Junior and Rodrigo da Rosa	Everyone Learns - By Teacher. Aline Bernardino	56
<i>Live</i> 17H - High skills/giftedness with Cristina Delou	Cristina Delou and Fabiane Pinto	Ismart	5.207

Table 1 – Videos found on the YouTube® platform

(conclusion)

Title	Participants	Channel	Views
<i>Live with the theme “High abilities/giftedness”</i>	Tarciéli Martins and Ronise Venturini Medeiros	Algo Mais Group& Algo Mais Clínic	127
<i>Live Palestra: “High abilities/giftedness – Teacher Dêvia Maria</i>	Dêvia Maria and mediator	APAE Parnaíba-PI	443
<i>Live - Mother of a child with high abilities/giftedness</i>	Cristiane Tada	Café Inclusão	40
<i>Live High skills/giftedness - Thamille Pereira dos Santos</i>	Thamille Pereira dos Santos and mediator	WebTV IF Farroupilha	1.124
<i>Live High skills giftedness</i>	Cezar Sena and mediators	Cezar Sena	209
<i>Live - Does my child have high abilities?</i>	Olzeni Ribeiro and Gisele Padovan	Espichei Oficial	960
<i>Live: Let's talk about high skills?</i>	Fabiane Favarelli Navarra and mediators	AEE Inclusivo	296
Mathematics education and high abilities/giftedness - <i>Live 20/09/2021</i>	Carla Magna Santos and mediators	Licenciatura em Matemática (CALMA)	16
School acceleration for students with high abilities/giftedness indicators	Sandra and Mariana	FCEE	1.036
<i>Live International Day of Giftedness</i>	Ivana Lucena, Veronica Gomes and mediators	EETI Monsenhor Honório	380
<i>Live: Altas habilidades e autismo</i>	Vicente Falcão, Ana Pravato and Diêge Muniz	Play Congress	6.088
<i>IX Live Commented Giftedness and high abilities in the potential mix context 04/11/2020</i>	Ana Maria Linhares and mediator	MixPotencial	73
<i>Live com Sandreliza Moura about high abilities or giftedness</i>	Sandreliza Moura and mediator	ABPp Núcleo Maranhão	31
<i>Live from quarantine #3 High abilities or giftedness</i>	Bartira Santos Trancoso and mediator	Sec SC	84
<i>Live: VI Thematic Seminar about high abilities/giftedness</i>	Vera Borges de Sá, Denise Arantes Brero and mediators	Unicap	718
<i>Live High Skills - Guest Aline Russo</i>	Aline Russo and mediator	NeuroDesenvolver	25
Over-excitability in high abilities/giftedness	Carina Rondini, Patrícia Neumann	Rede de Atendimento Integral Ao Superdotado	630

Source: Made by the authors (2022).

Notes: 1. Video titles and channel names from YouTube® have been retained from their original location; 2. Some presenter and/or moderator names were not complete or were not properly identified in the video/video description.

It is pointed out that most of the videos found were related to highlighting what giftedness are. The other themes explored were: parenting; acceleration; mathematics; high abilities and autism; and over-excitability. This result suggests that the consumer

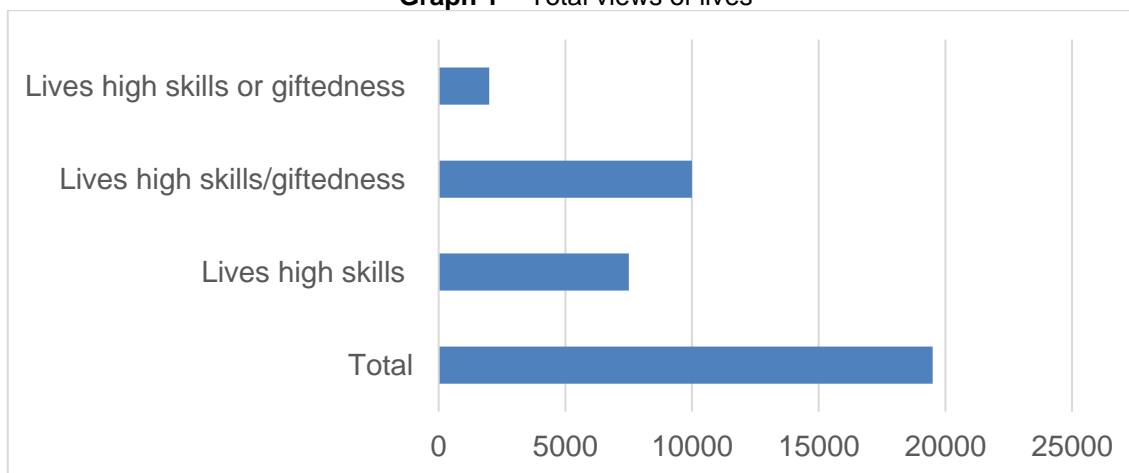
public would be composed of non-specialist professionals, as it addresses more global and/or introductory aspects.

As for the results found, of the eight searched *strings*, only three resulted in videos in the stipulated criteria, as well as it was possible to notice that the *strings Live high abilities* and *Live high abilities/giftedness* brought the same amount of videos (eight) each, followed by *string Live high skills or giftedness*, with a smaller number of videos found (seven).

Another result is in relation to the year with the highest incidence of *lives*, with 2021 being the year with the highest incidence (16); followed by 2020, the beginning of the pandemic, with five productions – it is worth mentioning that this year was marked by the biggest global health crisis, after the Spanish flu of 1918 (MAINIERI et al., 2022); and, finally, the year 2022, with a *live*, in which the face-to-face return of activities was experienced, even with the presence of the pandemic.

Through the YouTube® platform, it is also possible to identify the reach of the video, through the “view” option, which demonstrates the range of lives and the audience reached, as shown in Graph 1.

Graph 1 – Total views of lives



Source: Made by the authors (2022).

With regard to initial and continuing teacher training, the teacher can be an important ally in identifying and working with high capacities, as long as he has sufficient training (EURYDICE, 2008) and not just an interest in the subject (PÉREZ, 2003). According to an official document from Brazil (2000), it is in initial training that teachers need to acquire certain knowledge and can experience the development of skills

necessary for their performance in their own learning process. Also according to this legal provision, teacher training encourages teachers to learn all the time, to research, to invest in their own training and to use their intelligence, creativity, sensitivity and ability to interact with other people to teach. In addition to initial training, Marcelo Garcia (1995) adds that training should be considered as a *continuum*, that is, as a process to be associated with teaching professional development, as a perspective of continuity and evolution.

In this sense, Soares (2020) points out that the training aimed at teachers has not been contemplating the real needs of the school and highlights that the training actions offered by the institutions aim to fill the gaps in initial training and tend to be more sporadic activities, with the format of training or recycling, or even as improvement, through shorter courses, seminars, lectures or workshops or with a more traditional character, deeper, dynamic and current, within the real school context.

With regard to teacher training to work with giftedness, Rech and Negrini (2019) and Souza (2017) point out that there is a training limitation for these professionals, especially in the initial phase. Rech and Negrini (2019) point out that the investigated professors demonstrated weaknesses in their understanding of what inclusive pedagogical practices aimed at students with high abilities would be and that the participating professors needed continuing education for this specific area.

In Souza's investigation (2017), specifically on the initial training of pedagogues to work with high abilities, participating university students were asked if they had received training on the aforementioned theme, and 71% answered yes. When asked if they considered that the acquired knowledge would help them in practice, only 50% said yes, however, when asked if they felt prepared to work with this public, 78% answered no, despite the fact that a substantial part of the participants had received training for the subject and, even so, they did not feel prepared to work with such an audience. Due to data like these, it is inferred the possibility of public interest (non-specialist professionals) in videos/lives on YouTube® as an alternative form of complementary training amid the isolation of the pandemic.

The *lives* are seen as short-term “lectures”, aimed at training or informing about a specific topic. As already mentioned by Soares (2020), training institutions can offer quick training to meet a need or failure obtained in initial training.

Coutinho and Alves (2010) point out that the influence of the internet is visible in face-to-face training models and much more in the online model, a model in which the student can have individualized or collaborative teaching, in groups or in a network, since it provides search of knowledge and turns students into authors of their own knowledge. In this sense, the YouTube® platform must be mentioned as a data source for different academic or scientific investigations, such as: social sciences, humanities, health sciences, among others, and there are positive impacts of this tool to improve learning (QUIROZ, 2022). In this way, it is noticeable how the internet has become an education tool, thus raising the hypothesis that the *lives* are conducive to continuous training.

The discussion about the terminology used in the *lives* becomes essential because in the area of giftedness there is diversity to define this public, the most recent being undertaken in an official Brazilian document, amended in 2013, “high abilities or giftedness” (BRASIL, 1996, 2013).

Rangni and Costa (2011) suggest problematizing the nomenclature to define this audience, as the use of an “e” or “/” modifies the interpretation of who these students are, since “and” is both an additive conjunction and can be adversative, since the term “or” denotes to be adversative, implying that the student can have high abilities and giftedness or high abilities or giftedness. In this regard, terms with the use of “/” and “ou” were the most used, since they are present in Brazilian legislation (BRASIL, 2008, 2013). It should be noted that the specificity (high abilities) addressed in this work is neither one thing nor the other, but a set of characteristics that individuals have that define them as above average.

Regarding the number of views of *lives*, YouTube® uses interaction metrics: the number of times visitors interact with the YouTube® video or channel; the markings present on the platform such as “liked” and “disliked”; and subscriptions to channels. Thus, these metrics can be meaningful measures of the “popularity” of the video or channel (YOUTUBE AJUDA, s/d). However, Bärtil (2018) states that the platform's algorithm itself causes problems for viewing, such as the suggestion of videos, for example, as it means that not all YouTube® videos have the same possibilities of being viewed. About 85% of the suggestions are concentrated in a minority of 3% of the platform's channels, bringing difficulties to the most recent ones, given that they may not have the same visualization as older channels.

In this wake, it was possible to perceive, according to the number of views of the videos found, the popularity of the theme of giftedness, since some contents were viewed almost 2,000 times. In view of this, we asked ourselves whether other videos could not be found taking into account the algorithm itself and the platform's suggestions.

4 Final considerations

The present investigation aimed to present what was broadcast in YouTube® *lives* about high capacities during the period of the Covid-19 pandemic (2020-2022). In general, we consider that our objective was reached, although more introductory themes to the theme were more incidents. It is worth mentioning that they play an important role, especially for educators and professionals without prior knowledge of the subject.

The search on a platform like YouTube® brought challenges and adaptations during the process of searching for *lives*, since the intelligent algorithms direct searches according to the tastes/interests of each user. This qualified the search process a little longer, however, it brought interesting results that demonstrate what type of content teachers/professionals absorbed about high capacities during the period of isolation caused by the pandemic.

Additionally, the question arises about the quality of the content transmitted in these *lives*, since, unlike a scientific journal, for example, YouTube® does not have any quality criteria, as the videos do not go through an evaluation process.

The present research has limits, considering that it was not proposed to analyze the quality of the contents of the *lives*. Thus, it is suggested that more research be carried out about the *lives* on the YouTube® platform, with the main scope of evaluating in depth the content treated in the transmissions.

It is hoped that the research can help teachers and professionals to perceive the process of information received through the internet, in the sense of leading them to reflect on what students with giftedness are like, their main characteristics and particularities; in addition to all this, it is expected that this study will enrich them in their professional practice, developing a more qualified and equitable practice.

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6 References

ABPP NÚCLEO MARANHÃO. *Live com Sandreliza Moura sobre altas habilidades ou superdotação*. YouTube, 22 jun. 2020. Available at: https://www.youtube.com/watch?v=ngw8ysx5eu&t=66s&ab_channel=abppn%20c3%20bacleomaranh%20a3o. Accessed on: July 30, 2022.

AEE INCLUSIVO. *Live: Vamos falar sobre altas habilidades?* YouTube, 21 out. 2020. Available at: https://www.youtube.com/watch?v=8-n4btrpvqc&t=181s&ab_channel=AEEInclusivo. Accessed on: July 30, 2022.

APAE PARNAÍBA – PI. *Live - Palestra: Altas habilidades / superdotação – Prof.^a Dêvia Maria*. YouTube, 20 mar. 2021. Available at: https://www.youtube.com/watch?v=BmdHMaynqCs&t=215s&ab_channel=APAEParna%20C3%20ADba-PI. Accessed on: July 30, 2022.

BÄRTL, M. YouTube channels, uploads and views. *Convergence: The Journal of Research into New Media Technologies*, [S.l.], v. 1, n. 24, p. 16-32. 2018. DOI <https://doi.org/10.1177/1354856517736979>.

BENITO, Y. M. *Superdotación y Asperger*. Madrid: EOS, 2009.

BRASIL. Lei nº 9.394, de 20 de dezembro de 1996. Estabelece as Diretrizes e Bases da Educação Nacional. *Diário Oficial [da] República Federativa do Brasil*, Poder Executivo, Brasília, DF, 21 dez. 1996.

BRASIL. Lei nº 12.796, de 4 de abril de 2013. Altera a Lei nº 9.394, de 20 de dezembro de 1996, que estabelece as diretrizes e bases da educação nacional, para dispor sobre a formação dos profissionais da educação e dar outras providências. *Diário Oficial [da] República Federativa do Brasil*, Poder Executivo, Brasília, DF, 5 abr. 2013.

BRASIL. Parecer CNE/CP nº 5/2020, de 28 de abril de 2020. Reorganização do calendário escolar e da possibilidade de cômputo de atividades não presenciais para fins de cumprimento da carga horária mínima anual, em razão da pandemia da Covid-19. *Diário Oficial [da] República Federativa do Brasil*, Poder Executivo, Brasília, DF, 1º jun. 2020a.

BRASIL. Parecer CNE/CP nº 9, de 9 de julho de 2020. reexame do Parecer CNE/CP nº 5, de 28 de abril de 2020, que versa sobre a reorganização do Calendário Escolar e da possibilidade de cômputo de atividades não presenciais para fins de cumprimento da carga horária mínima anual, em razão da Pandemia da Covid-19. *Diário Oficial [da] República Federativa do Brasil*, Poder Executivo, Brasília, DF, 9 jun. 2020b.

BRASIL. Portaria nº 343, de 17 de março de 2020. Dispõe sobre a substituição das aulas presenciais por aulas em meios digitais enquanto durar a situação de pandemia do Novo Coronavírus - Covid-19. *Diário Oficial [da] República Federativa do Brasil*, Poder Executivo, Brasília, DF, 18 mar. 2020c.

BRASIL. *Política Nacional de Educação Especial na perspectiva da Educação Inclusiva*. Brasília, DF: MEC, 2008.

BRASIL. *Proposta de diretrizes para a formação inicial de professores de professores em educação básica, em cursos de nível superior*. Brasília, DF: MEC, 2000.

CAFÉ INCLUSÃO. *Live: mãe de uma criança com altas habilidades/superdotação*. YouTube, 29 jul. 2021. Available at: https://www.youtube.com/watch?v=W5wTm6Jyu4U&t=154s&ab_channel=Caf%C3%A9Inclus%C3%A3o. Accessed on: July 30, 2022.

CASIES MATO GROSSO. *CASIES/NAAHS - Live: Altas habilidades/superdotação com a Dra. Angela virgolim*. YouTube, 24 ago. 2021. Available at: https://www.youtube.com/watch?v=cjmjOliLH8M&t=5142s&ab_channel=CasiesMatoGrosso. Accessed on: July 30, 2022.

CCEDUC WORKSHOP EDUCACIONAL. *Live: Superdotação e altas habilidades*. YouTube, 7 set. 2020. Available at: https://www.youtube.com/watch?v=SQOnU5DCS3o&t=114s&ab_channel=CCEDUCWorkshopEducativo. Accessed on: July 30, 2022.

CEZAR SENA. *Live Altas Habilidades) Superdotacao*. YouTube, 13 jun. 2020. Available at: https://www.youtube.com/watch?v=4XRISQO3Mhc&t=2s&ab_channel=CezarSena. Accessed on: July 30, 2022.

CONGRESSO BRINCAR. *Live: Altas Habilidades e Autismo*. YouTube, 18 jul. 2020. Available at: https://www.youtube.com/watch?v=YhGrLqcvrRA&ab_channel=CongressoBrincar. Accessed on: July 30, 2022.

COSTA, A. B.; ZOLTOWSKI, A. P. C. Como escrever um artigo de revisão sistemática. In: KOLLER, S. H.; COUTO, M. C. P. P.; HOHENDORFF, J. v. (org.). *Manual de produção científica*. Porto Alegre: Penso, 2014. p. 55-70.

COUTINHO, C. P.; ALVES, M. Educação e sociedade da aprendizagem: um olhar sobre o potencial educativo da internet. *Revista de Formación e Innovación Educativa Universitaria*, Vigo, v. 3, n. 4, p. 206-225, 2010.

DEMARTINI, S. S.; LARA, I. C. M. Teaching mathematics in the pandemic reality: Technological tools used in the final years of elementary school. *SciELO Preprints*, 2022. Available at: <https://preprints.scielo.org/index.php/scielo/preprint/view/3633/version/3846>. Accessed on: July 30, 2022.

DOLCEMÁSCOLO, A. Trabajar en plataformas de video: formas de desarrollo y organización de la actividad de productores audiovisuales de YouTube en Argentina. *Hallazgos*, Bogotá, DF, v. 19, n. 37, p. 1-33, 2022.

DONATO, H.; DONATO, M. Etapas na condução de uma revisão sistemática. *Revista Científica da Ordem dos Médicos*, Lisboa, v. 3, n. 32, p. 227-235, 2019. DOI: <https://doi.org/10.20344/amp.11923>.

EETI MONSENHOR HONÓRIO. *Live Dia Internacional da Superdotação*. YouTube, 10 ago. 2021. Available at: https://www.youtube.com/watch?v=OdYiByk4CGQ&t=494s&ab_channel=EETIMonsenhorHon%C3%B3rio. Accessed on: July 30, 2022.

ESPICHEI OFICIAL. *LIVE - Meu filho tem altas habilidades?*. YouTube, 22 set. 2021. Available at: https://www.youtube.com/watch?v=gwCMtjia9EM&t=726s&ab_channel=EspicheiOficial. Accessed on: July 30, 2022.

EURYDICE. Unidade Portuguesa. *Educação de sobredotados na Europa*. Lisboa: Gabinete de Estatística e Planeamento da Educação, 2008. Available at: https://www.edufor.pt/aenelas-pic/imagens/Sobredotados_na_Europa.pdf. Accessed on: July 20, 2022.

FALANDES, C. G.; RENÓ, D. P. Narrativas inmersivas durante la pandemia de Covid 19: Un análisis de videos 360 grados en YouTube. *Revista Panamericana de Comunicación*, Cidade do México, DF, v. 4, n. 1, p. 84-97, 2022.

FALAVINA, I. YouTube é a plataforma de mídia social mais popular pelo 2º ano consecutivo. *Mundo conectado*, 2021. Available at: <https://mundoconectado.com.br/noticias/v/18074/youtube-e-a-plataforma-de-midia-social-mais-popular-pelo-2o-ano-consecutivo>. Accessed on: Nov. 30, 2022.

FCEE. *Aceleração Escolar para alunos com indicadores de altas habilidades/superdotação*. YouTube, 17 set. 2021. Available at: https://www.youtube.com/watch?v=9LRAEqs_1QM&t=108s&ab_channel=FCEE. Accessed on: July 30, 2022.

GRUPO ALGO MAIS & CLÍNICA ALGO MAIS. *Live com o tema “Altas habilidades/superdotação”*. YouTube, 30 ago. 2021. Available at:

https://www.youtube.com/watch?v=gRLmWC6Ovml&t=446s&ab_channel=GrupoAlgoMais%26Cl%C3%ADnicaAlgoMais. Accessed on: July 30, 2022.

ISMART. *Live 17H - Altas Habilidades/Superdotação com Cristina Delou*. YouTube, 4 jun. 2020. Available at:

https://www.youtube.com/watch?v=y5AQzF0KM88&t=175s&ab_channel=Ismart.

Accessed on: July 30, 2022.

LANIUS, M. É hora de desvendar o algoritmo do YouTube. *Shopify*, 2022. Available at:

<https://www.shopify.com/br/blog/algoritmo-youtube>. Acesso em: 30 nov. 2022.

LICENCIATURA EM MATEMÁTICA (CALMA). *Educação matemática e altas habilidades/superdotação - live 20/09/2021*. YouTube, 20 set. 2021. Available at:

https://www.youtube.com/watch?v=l8v3WehVu_0&t=347s&ab_channel=Licenciaturaemmater%C3%A1tica%28CALMA%29. Accessed on: July 30, 2022.

MAINIERI, C. M. P *et al.* Análise das postagens em torno de surdez e educação realizadas na plataforma Youtube®, durante o período de pandemia decorrente da Covid-19. *Revista Educação Especial*, Santa Maria, v. 35, p. 1-23, 2022.

MARCELO GARCIA, C. M. A formação de professores: centro de atenção e pedra-de-toque. In: NÓVOA, A. (coord.). *Os professores e a sua formação*. 2. ed. Lisboa: Dom Quixote, 1995. p. 51-76.

MINAYO, M. C. S. *O desafio do conhecimento: pesquisa qualitativa em saúde*. São Paulo: Hucitec, 2010.

MIXPOTENCIAL. *IX Live comentada superdotação e altas habilidades no contexto mix potencial 04/11/2020*. YouTube, 4 nov. 2020. Available at:

https://www.youtube.com/watch?v=X7whFOrpVig&t=599s&ab_channel=MixPotencial.

Accessed on: July 30, 2022.

MOHER, D. *et al.* The Prisma Group. Preferred reporting items for systematic reviews and meta-analyses: The prisma statement. *Epidemiologia e Serviços de Saúde*, Brasília, DF, v. 2, n. 24, p. 335-342, 2015.

NEURODESENVOLVER. *Live Altas Habilidades - Convidada Aline Russo*. YouTube, 18 jun. 2020. Available at:

https://www.youtube.com/watch?v=ZHjjgkOHxtI&ab_channel=NeuroDesenvolver.

Accessed on: July 30, 2022.

PERALES, R. G.; GONZÁLEZ, I. C.; MARTÍNEZ, A. C. Alta capacidad y género: La autoestima como factor influyente en las diferencias entre sexos. *Contextos Educativos*, Logroño, n. 24, 77-93, 2019.

PÉREZ, S. G. P. B. Mitos e crenças sobre as pessoas com altas habilidades: alguns aspectos que dificultam o seu atendimento. *Revista Educação Especial*, Santa Maria, v. 1, n. 1, p. 45-59, 2003.

QUIROZ, M. Q. G. Análisis informétrico del metaverso en canales y vídeos hispanoparlantes de YouTube. *Podium*, Samborondón, n. 41, p. 141-156, 2022.

RAIS. *A sobre-excitabilidade nas altas habilidades/superdotação*. YouTube, 3 mar. 2022. Available at:

https://www.youtube.com/watch?v=mkx1ankiyny&t=59s&ab_channel=rededeatendimentointegralaosuperdotado-rais. Accessed on: July 30, 2022.

RANGNI, R. A.; COSTA, M. P. R. Altas habilidades/superdotação: entre termos e linguagens. *Revista Educação Especial*, Santa Maria, v. 24, n. 41, p. 467-482, 2011.

RECH, A. J. D.; NEGRINI, T. Formação de professores e altas habilidades/superdotação: um caminho ainda em construção. *Revista Ibero-Americana de Estudos em Educação*, Araraquara, v. 14, n. 2, p. 485-498, 2019. DOI <https://doi.org/10.25053/10.21723/riace.v14i2.11080>. Accessed on: Nov. 30, 2022.

SAMPAIO, R. F.; MANCINI, M. C. Estudos de revisão sistemática: um guia para síntese criteriosa da evidência científica. *Revista Brasileira de Fisioterapia*, São Carlos, v. 1, n. 11, p. 83-89, 2007.

SEEC SC. *Live de quarentena #3 - Altas Habilidades/Superdotação*. YouTube, 5 maio 2020. Available at: https://www.youtube.com/watch?v=1WY8VCfoNvY&ab_channel=SeecSC. Accessed on: July 30, 2022.

SIERRA, M. D. V. *et al.* Emotional intelligence and its relationship with gender, academic performance and intellectual abilities of undergraduates. *Electronic Journal of Research in Educational Psychology*, [S.l.], v. 11, n. 2, p. 395-412, 2013.

SIMONE NEURO PSICOPEDAGOGA. *Live com Susana Pérez sobre altas habilidades/superdotação*. YouTube, 25 maio 2020. Available at: https://www.youtube.com/watch?v=tehnkehz0aw&t=3031s&ab_channel=simoneneuropsicopedagoga. Accessed on: July 30, 2022.

SOARES, M. P. S. B. Formação permanente de professores: um estudo inspirado em Paulo Freire com docentes dos anos iniciais do Ensino Fundamental. *Educação & Formação*, Fortaleza, v. 5, n. 13, p. 151-171, 2020. DOI <https://doi.org/10.25053/redufor.v5i13.1271>. Available at: <https://revistas.uece.br/index.php/redufor/article/view/1271>. Accessed on: Jan. 11, 2023.

SOUZA, A. R. *Formação de pedagogos para a atuação com pessoas dotadas e talentosas*. 2017. 162 f. Dissertação (Mestrado em Educação Especial) – Programa de Pós-Graduação em Educação, Universidade Federal de São Carlos, São Carlos, 2017.

TARDIN, H. P.; ROMERO, L. R. Formação prática na residência pedagógica em tempos de pandemia: reflexões sobre contribuições e aperfeiçoamento. *Educação & Formação*,

Fortaleza, v. 7, e7432, 2022. DOI <https://doi.org/10.25053/redufor.v7.e7342>. Available at: <https://revistas.uece.br/index.php/redufor/article/view/7342>. Accessed on: Jan. 11, 2023.

TODOS APRENDEM - POR PROF. ALINE BERNARDINO. *Live - Altas habilidades/superdotação*. YouTube, 18 ago. 2020. Available at: https://www.youtube.com/watch?v=NQPhczj-igg&t=3366s&ab_channel=TodosAprendem-PorProf.AlineBernardino. Accessed on: July 30, 2022.

UNICAP. *Live: VI Seminário Temático sobre Altas Habilidades/Superdotação*. YouTube, 31 mar. 2021. Available at: https://www.youtube.com/watch?v=95vt9eD2All&t=361s&ab_channel=Unicap. Accessed on: July 30, 2022.

WEBCV IF FARROUPILHA. *Live Altas Habilidades/Superdotação - Thamille Pereira dos Santos*. YouTube, 20 maio 2020. Available at: https://www.youtube.com/watch?v=NpzLEnvVmH4&t=526s&ab_channel=WebTVIFFarroupilha. Accessed on: July 30, 2022.

YOUTUBE AJUDA. *Como contamos as métricas de interação*. (s/d). Available at: <https://support.google.com/youtube/answer/2991785?hl=pt>. Accessed on: Nov. 30, 2022.

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