Micro Video as a Tool for Positive Wellbeing: a systematic Literature Review

Feng Jie[1,2], Kamal Sabran[1,*]

[1]Department of New Media Design and Technology, School of the Arts, Universiti Sains Malaysia, Gelugor 11800, Penang, Malaysia
[2]Sichuan Minzu College, Sichuan 626001, China
[*]Corresponding Author.

Abstract: Micro video is very popular in recent years. The aim of this review was to summarize and discuss micro video as a tool for positive wellbeing and the effects of the micro video. Relevant studies published between December 2013 and December 2023 were searched by using the Google Scholar, PubMed, Scopus, Web of Science, and Wiley Online Library databases. A total of 25 papers were selected. The study results focus on three main areas: the reasons of the micro video to be positive; the content and the form of the micro video; and the effects of the micro video on people. This study shows that in education and recovery of patient, the micro video was a new useful tool. Among other findings, content and the form of the micro video were identified as creative and novelty. Most studies report that micro video has positive effects on people's perception, affection and action. Micro video can help people to alleviate the fears, stimulate the interest and improve the self-management. By assessing the micro video effects available, this review shows that future research should dedicate in the long-term effectiveness of micro video and the mental health of ordinary people, based on different situations.

Keywords: Micro Video; Effects; Perception; Affection; Action

1. Introduction

Micro video was very popular. Micro-videos have become a popular form of online social networking[1]. In July 2019, the number of active micro video users had reached 3.534 billion worldwide. China's micro-video user base exceeds 1 billion by December 2022 [2].

Micro video was positive for the objects. Micro video recorded the objects. In science research, micro video recorded the proceed of the experiment. Micro video strengthened the effect of the objects. There are mainly three kinds of effects. Firstly, micro video strengthened the effect of the education[3]. Micro video was associated with the learning mode, the number and the quality of the learning resources, the campus culture and the deep learning[4]. Micro video was also a new teaching means. Micro video improved the level of teaching. Secondly, micro video gave a help to government's policy. Finally, micro video boosted the development of the tourism.

Micro video as a new part of the object, supported the object. Micro video was an important part of educational system, curriculum, a new course and the flipped room, so micro video was new style of the knowledge sharing.

The content of the micro video was creative[5]and positive [6]and affective. Joglekar, N. Sastry and M. Redi focused on the quality of micro video. The perceptual quality of micro videos was also important. R. Shu, L. Yang and Z. Jiang researched on seductive details in micro video. V.Purushothaman focused on the characteristics of content on TikTok. But some researcher thought that the content of the micro video was same as the other things.

There were some researches which focused on the characteristic of the video system. The first characteristic of the video system was how to classify the micro videos. The second characteristic of the video system was how to predict the micro video popularity. The third characteristic of the video system was how to make the micro video efficiency.

There were some researches which focused on the compartment of micro video such as hashtag, recommendation and venue information.

Micro video was positive on people. Micro video had effect on the student study. Micro video improved student's vocabulary memorization, the internalization of knowledge, creativity and critical thinking[1]. Micro video trained the doctors and nurses[7]. Micro video improved frailty status and self-care activities in elderly patients and the depression of patients. Micro videos encouraged the parent participation in the child's learning process[8]and children used the micro video to experience their confinement[9]. Some researches dedicated in the behavior of the micro video users. They focused on the content of micro video made by individual and detected the behavioral and physiological responses of micro video users[10]. Micro video improved the knowledges and skills of community residents and increased residents' willingness and behavior to perform first aid.

The current literature review focused on reviews of online learning in the COVID-19 pandemic. This paper focused on positive effect of micro-video which works on people. The positive effect of micro-video could be used to solve which challenges on people. How micro-video solves the challenges on people. What the specific effects of micro-video are in solving these challenges on people.

The questions of this study are as follows.
1. Why we need micro-video Positive effects on people (RQ1).
2. What forms of these micro-videos have a positive effect on people (RQ2).
3. What kind of positive effect these micro videos have on people (RQ3).

2. Method

2.1 Data Sources and Search Strategy

Following the guidelines provided by the PRISMA statemen[11], the authors collected the published literature though the Google Scholar, PubMed, Scopus, Web of Science, and Wiley Online Library databases. The scope ran from December 1, 2013, to December 1, 2023. The keywords for this review consisted of two sets of keywords related to micro video and positive. The specific search strategy employed was as follows: ("microvideo" OR "micro video" OR "micro-video" OR "micro videos") AND ("positive" OR "aspiring " OR "optimistic" OR "advantageous " OR "affirmative " OR " constructive " OR "formal " OR " undeniable " OR " favorable" OR "improvement "OR" good "OR" well").

2.2 Inclusion and Exclusion Criteria

Table 1. Inclusion and Exclusion Criteria Based on the PICOS Model

Criteria	Inclusion	Exclusion
Population	Patients, residents, teachers, students and professionals in using the micro video.	Compartments of micro video such as hashtag, recommendation and venue information.
Interventions	Micro video correlation measurements and Intervention.	
Comparisons	Separate groups, or comparisons with clear rationale.	
Outcomes	Results related to micro video measurements or to the study population.	Studies describing micro video only, without field measurements or experiments.
Study designs	Observational studies, cross-sectional studies, comparative trials-both randomized and nonrandomized trials.	Review studies, case reports, Conference abstracts.

According the PICOS model (Table 1.), the inclusion and exclusion criteria were constructed in this review. The content and character of the micro video had the positive on people's perception, affection and action. The study population was teachers, students, patients and residents in using the micro video. The review did not include those compartments of micro video such as hashtag, recommendation and venue information. The view were micro video-related measurements and interventions. To improve the validity and quality of the review's results, all the papers had to be measured or experimental. The view designs covered observational studies, cross-sectional studies, and randomized/non-

randomized trials but excluded review studies, case reports, and conference abstracts. At result, twenty-five papers were selected, in which only one paper was in Chinese and others are in English.

2.3 Study Selection

The study selection was completed by the two authors, starting with the title and abstract of each article read to determine whether the research met the standard of incorporation. Use EndNote to automatically delete duplication items. Then, read and strictly evaluated the full text of each study reported by the preliminary screening to determine whether the article should be included in the

discussion and analysis of this review. The two authors solved the differences through joint discussions.

2.4 Data Extraction and Analysis

This systematic review formulates a data extraction table that independently extracts materials and information related to research issues from 25 studies. The research features in the data extraction table include basic data, descriptive data, and results data. Specifically, the basic data extracted includes the author, the year and the country. The extracted descriptive data includes the medical environment, purpose, research design, sample size and population, and main research results (Table 2.).

Table 2. Study Characteristics and CCAT Scores

Authors	Country	YEAR	Objective	Research Design	Sample Size and Population	Research Results	CCAT score/40 (%)
Miriam Redi et al.,	Spain, Italy	2014	To focus on creative micro-videos.	description	4,000 videos	It is necessary to model aesthetic value and novelty to achieve the best classification accuracy.	33(83)
Ting Zhou et al.,	China	2020	To observe and analyze effect of MOOC Micro Video Combination Model .	Cross sectional	60 nursing	MOOC Micro Video Combination Model is more satisfied in emergency care practice.	24(60)
C. Zhu et al.,	China	2019	To investigate the current situation of the official TIK Tok account managed by the China PHCs.	Mixed methods	31 PHC accounts	Most PHCs are trying to use the Tik Tok platform, especially considering that the platform is becoming more and more popular, and the accounts created are also increasing day by day.	25(63)
Q. Ren et al.,	China	2022	To focus on the self - management of patients .	Quasi randomize trial	80 patients	Micro-video health education can improve the self-management ability and knowledge level of patients.	31(78)
Sagar Joglekar et al.,	UK	2017	To focus on the quality of micro-video.	Mixed methods	nearly all (>120, 000) video	Like at first sight: Understand the participation of users in the micro video world	34(85)
G. Lu et al.,	China	2021	To perform a micro-video intervention to verify the impact on the patient's recovery.	Quasi randomize trial	78 patients	Micro -video can reduce patients' movement fear scores and pain scores .	28(70)
Gorrotxategi Gorrotxategi et al.,	Spain	2020	To explore how children experience the confinement.	Description	53 children	Drawings, stories and videos stories are useful tools to analyze the views of such people on risks.	25(63)
Frydenberg et al.,	USA	2016	To focus on micro videos in sharing ideas, experience and life events through online social networks.	Observational within case controlled	no mention	Micro video provides effective ways to show students' learning results and digital literacy skills.	30(75)
Y.-Y. Wu et al.,	China	2022	To explores the application and evaluation of micro video classrooms of teaching in the college.	Quasi randomize trial	158 Students	The micro -video classroom mode has successfully improved the effect of teaching.	22(55)
Tian & Tsai,	China	2021	To focus on study of digital micro -videos of big data English courses.	Description	no mention	The process of making micro video teaching resources is explained, including the preparation, recording, editing and generation of material.	26(65)
J. Huang & Yu,	China	2022	To focus on the college education in teaching method.	Description	The three colleges and universities	The effect of ordinary college students is the most obvious, and the effect of	25(63)

					micro -video learning is significantly improved	
(Abbas et al.	Egypt	2022	To take TIKTOK as a new media, expand the literature on online actionism.	Mixed methods	203 TikTok videos	The function of TIKTOK encourages creative production of direct and indirect content, making the platform a space for expression, mobilization and online activities.	32(80)
Zhao et al.	China	2022	Verify micro videos efficacy and applicability	Quasi randomize trial	200 Adults	The main results will involve depression and anxiety symptoms.	29(73)
Thompson	USA	2020	The research on early arithmetic skills, especially the research skills in the family environment lacks the focus.	Mixed methods	41 preschool parents	Micro -video encourages parents to participate in their children's learning process.	33(83)
Y. Liu, N. Cai, Z. Zhang, & H. Fu,	China	2022	To improve the teaching efficiency of colleges and universities	Quasi randomize trial	81 students	The micro video teaching platform has good performance and stability.	29(73)
Xi-ping	China	2017	To explore teaching design and application strategies "snapshot, bold show"	Description	700 students,	It can stimulate the learning motivation of learners, Stimulate their desire to learn, while improving their spoken English results.	27(68)
J. Cai, Zhu, Tian, & Yang	China	2017	To show how to develop and implement a blended learning mode.	Quasi randomize Trial	277 student and teachers	The enhanced blended learning mode effectively helps students and teachers to learn modern education technology courses.	28(70)
N. Gao	China	2018	To focus on the reform of teaching ideas, teaching models and learning methods.	Description	114 students	This teaching model provides new concepts for the reform of other courses in surveying and mapping engineering.	26(65)
M. Liu	China	2017	To construct a teaching model based on modern education technology	Description	90 students	The teaching model can effectively improve students' learning interest, independent learning ability, collaborative learning ability and practical ability.	25(63)
R. Liu, Yang, Deng, Liu, & Deng,	China	2022	To focus on the TikTok medicine accounts	Prospective observational cohort study	63 doctors	These results more comprehensively reflect the operation of health and scientific communication accounts, and reconcile the scattered results in the literature.	28(70)
Xiong, Wang, & He	China	2022	To study the impact of micro -video explanation on the cognitive control and nursing cooperation.	Quasi randomized trial	30 patients	Micro video explanations can improve disease perception control, improve self -care ability, and promote the smooth progress of treatment.	30(75)
Ng & Indran	Singapore	2023	To discuss this topic in depth to see how the elderly TIKTOKERS expresses the self - cognition of aging in the video	Mixed methods	1,382 videos	The elderly tend to actively describe themselves in various areas of the application. If you use a destination, Tiktok may become a promising platform that improves the public's view of the elderly.	33(83)
GU, Zhang,	China	2018	To explore the	Quasi	108 nurses	Protective restrain micro	28(70)

& Zhang,			application of micro videos in the skills training of low -qualified nurses in psychiatry.	randomized Trial	and 6 patients	video can stimulate nurses' interest in learning, standardize nursing behaviors, improve the quality of clinical care, and reduce the damage rate.	
Quintas-Hijós & Latre-Navarro	Spain	2023	To know whether the training courses based on micro -video are more effective than face -to -face ways, and make students feel that they are ready for general education education.	Quasi randomized Trial	34 students	The result is no conclusion. In the future, a mixed mode could be considered,.	30(75)
Soleymani & Mortillaro	Switzerland	2018	To focus on the physiological and behavioral mode related to visual interest.	Mixed methods	52 participants,	Automatic evaluation and detection may be a suitable way to detect subtle emotions , because this emotion does not have a prototype expression method.	32(80)

2.5 Quality Assessment

Following conducting the above -mentioned research selection, we use the Croar Critical Evaluation Tool (CCAT) to evaluate the quality of the selected documents[3]. CCAT emphasizes the use of research design suitable for research problems, not how good the research design is. Guidelines have scored eight aspects of each paper: preface, introduction, design, sampling, data collection, ethical issues, results and discussions. Each category scores 0 to 5, with a total score of 40 points. After a comprehensive review, Table 2 lists all the quality assessment scores and percentage of all the review and research.

3. Results

Figure 1. shows the PRISMA flowchart for research and screening. The authors used the initial search strategy to find 6745 papers in the database in the first stage. In the second stage, the authors automatically deleted 5516 repeated records with Endnote software, and further artificially screened the title and abstract of 1129 records in accordance with the entry and exclusion standards. The third stage is to read 373 articles in full text. The reasons for the exclusion of research are as follows: Non-general medical institutions, research groups are patients with specific diseases, and research content is acoustic evaluation and review articles related to treatment. After this stage, a total of 25 articles were determined. In this review, there were one cross-sectional studies, seven descriptive studies,

observational studies, two prospective observational cohort studies, nine randomized controlled trials, and six mixed-methods studies. seventeen studies were conducted in Asian countries, two in the United States, three in Spain, one in the United Kingdom, one in Egypt, one in Switzerland and one in Singapore. Nineteen studies contained population samples with a minimum sample size of 30 participants, twelve studies had sample sizes between 31 and 100, and the remaining six had sample sizes greater than 100. Most studies were of moderate quality. According to the CCAT scores, six studies were above 80%, eighteen were between 60% and 80%, and one was below 60%.

## 3.1 The Reasons of the Micro Video to be Positive (RQ1)

Micro video was popular. Five studies reported on popular of Micro video. Micro -video has become a new form of user -generated content on the social media platform (such as Vine, Instagram, and Facebook)[5]. In July 2019, the number of worldwide active micro video users have reached 3.534 billion. In education, micro -video has gradually entered people's lives in recent years. The development of information technology provides a good opportunity for higher education flipping classrooms[10] and audience no longer sought traditional media for news[6].

Micro video was more useful than other tools. Six studies related to educational problem-solving skills of micro video. Micro video achieved the teaching requirements of flipped

classroom, improved the efficiency of teaching and learning[4], enhanced the learner`s spoken English performance, expanded the connotation and denotation of traditional teaching model, trained the low qualification nurses and provided tools for parents to participate in children's arithmetic knowledge education[8]. Four studies focused on the recovery of patients with micro video. Micro video speeded up the rehabilitation. The mean time to first time in the intervention group (36.34 ± 13.42) was less than that in the control group (43.297 ± 18.45), and the difference was statistically significant (P <.05). Micro video improved health and quality of patient's life. There are obvious differences in the knowledge of medical treatment between each group (T = 5.640, P = .020). After the care, the score of the observation group is lower than the control group (P <0.05). The score of the observation group is higher than the control group (P <0.05). Micro video can help relieve depression and/or anxiety symptoms and enhance recovery. It will be effective in terms of clinical results and applicability.

Micro video was a new useful tool. People used the micro video as a tool to express themselves. Three studies focused on expression tool of the micro video. When watching videos, people had the physiological and behavioral responses[10]. Children expressed the confinement with the micro video[9]. The middle-old people were the most enthusiastic positive self -image content creators, followed by young and elderly people. The number of videos created by women is twice that of men[7].
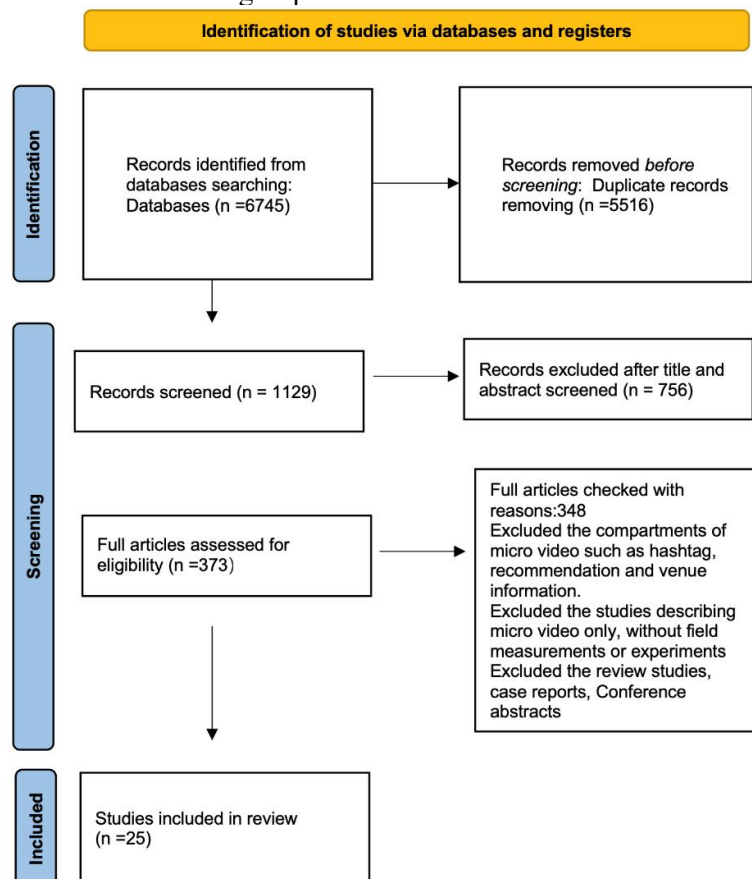
Figure 1. PRISMA Flow Diagram

3.2 The Characters of the Micro Video (RQ2)

Six studies focused on the definitive content of micro video. Users preferred that the expression and format of micro -video would be associated with their understanding of difficulty understanding or professional terms.

The learning content to meet students' different learning needs was the guarantee of improving the quality of learning. The content of micro video was strongly correlated with creative[5]. The quality of the first few seconds is higher than the quality of the next few seconds. Animation and documentary content featuring medical staff and disease knowledge are

welcomed by health -related micro -video audiences. Students learnt the basic theoretical knowledge through micro videos.

Three studies focused on the form of the micro video. Users started watching but not after watching a short video of 5-10 seconds. The hospital added video classification and collection settings on the TikTok page, which can achieve a strong account influence. The highest correlation with the characteristics of scene content, video novelty, composition and photography technology is the highest correlation with creative content[5].

3.3 The Effect of the Micro Video (RQ3)

On people's perception: alleviating fear. During COVID-19, micro video effectively reduced or avoided direct contact between patients and medical staff. Micro video explanations improved the patient's perception of the disease during the treatment, and improves their understanding of the disease. Micro-video intervention reduced the patient's fear, thereby relieve postoperative pain. Micro videos were a useful tool for analyzing pediatric people's views on risk status[9].

On people's affection: interest. Micro video detected interested emotions and evaluations it constituted. After using the design mode, students' interest in learning greatly increased, and the proportion increased to 82.4%. Students based on micro -video classrooms are more enthusiastic about learning, easier to understand teaching content, and have better memory effects. The use of micro -video brackets in English listening class has significantly improve students' academic performance. Most people in the user group expressed their views on the view of videos. The load of the learner's cognitive process seems to be effective[9]. Interactive micro-course teaching was a new teaching mode that met the learning needs of different learners, provided a large free choice space, and realizes teaching according to their aptitude. The teaching effect was very obvious.

On people's action: independent. Micro videos improved their independent. 84.8% of the experimental class students believe that their self -study ability has been proved. Micro -video teaching not only helps to alleviate the defects such as teaching resources and lack of practical venues, but also improves the initiative of students' independent learning[7].

Self-management. Compared with the baseline, the average scores of patients' ability to solve problems and their self -care in self -management and their problems have improved significantly. The producers of these videos, both political news and popular challenges, were young people inspired by self -display and expression of freedom. This showed that the younger generation realizes the potential of mobilizing others for a certain cause. From the traditional method to the transformation of micro -video methods, students could increase their sense of autonomy, especially because the structure of micro -video was more flexible.

Creative. Micro-videos provided a creative way for students to share superficial understanding of a certain theme within six seconds[1]. The elderly tended to depict themselves on the front. The elderly were even more sensitive to jokes with age -related easily[6].

4. Discussion

The popularization of the micro video was the base of positive. With the development of informational technology, the micro video had been an important part of the lives of people. So the micro video was used to resolve the problems in lives of people. The problem of education(n=11) was most strongly correlated with micro video, followed by the problem of medical treatment(n=6), showing that popularity feature was crucial for understanding the micro video. The character of the micro videos also was related with the problem of micro video. In education, the teaching model (e g, the flipped classroom, MOOC) (n=6), was most strongly correlated with micro video, followed by the students' abilities(n=3). Parents(n=1) and doctor(n=1) had a less relation with the positive of the micro video in education. In medical treatment, the micro videos (n=4) were used to relieves the pain degree of the patients. The micro videos (n=2) also could be a positive on mental health. In understanding the characters of the micro video, the form(n=2) was very important. The content(n=1) and the user(n=1) were less relations than the form of micro video.

As a positive tool, the contents of education(n=13) were most strongly correlated with micro video, followed by content of

medical treatment(n=4). Professional's image and knowledge (n=2) was important in content of micro video. The ordinary world (n=1) and political content also could be founded in micro-video. In the content of the education, it was commonly as the teaching materials or the course materials(n=10) to give the student the free choice. Students used the micro video to share their knowledge(n=2). the middle-old people were the most avid content creators(n=1). In the content of the medical treatment, micro-video as a supplementary indicator could improve patient's cognition of the disease. In the form of micro video, the quality of the first few seconds is higher than the quality of the next few seconds (n = 1) and based on scene content, video novelty, composition and photography technology, the most correlation group and creative content are the highest (n = 1).

As a positive tool, micro video had the strongly effect on students(n=13), patients(n=4) and other people(n=7). In education, students and teacher perceived the influence of the micro video(n=8), and affected the improvement by using the micro video(n=7). At last, micro video helped students to autonomous learn ability, to share the knowledge(n=4). In medicine, all patients (n=4) had an effectual improvement by the micro video during the recovery. But the micro video had the potential to the adults who were in moderately depressed and/or anxious. The People (n=4) used the micro video to express the percept of the outworld. If obeying some rules, the micro video had strongly affection on user. The producers of micro video also had the idea of self-representation and freedom of expression[6].

5. Conclusion

As it was very popular, micro video was used to resolve many problems and helped many persons specially in education and medicine. In education, micro video changed the traditional teaching model, improved the effective of students learning and invoked the interested of students. In medicine, micro video improved the training effect in nurses and benefited the patient's disease recovery. The producers also had the change to have freedom expression by micro video. The review found positive of micro video on mental health only in symptoms of depression and anxiety. The current evidence is limited and lacks assessment of long -term solutions. Future practical standards should provide positive connections between micro -video and mental health according to different micro - vision.

References
[1] Frydenberg, M., & Andone, D. (2016). Creating Micro-videos to Demonstrate Technology Learning and Digital Literacy. Interactive Technology and Smart Education, 13(4), 261-273. doi: 10. 1108/ itse-09-2016-0030

[2] CNNIC. (2023, 2023). The 51st Statistical Report on the Development Status of the Internet in China. Retrieved from https://www.cnnic.net.cn/n4/2023/0303/c88-10757.html.

[3] Crowe, M. J. C. H. S., UK. (2013). Crowe Critical Appraisal Tool (CCAT) User Guide. Dai, B. (2020). The Research on College Physical Education Innovation Based on Internet and New Media. Paper presented at the 2020 International Conference on Machine Learning and Big Data Analytics for IoT Security and Privacy: SPIoT-2020, Volume 2.

[4] Abbas, L., Fahmy, S. S., Ayad, S., Ibrahim, M., Ali, A. H. J. O. M., & Communication, G. (2022). TikTok Intifada: Analyzing Social Media Activism Among Youth. 1(2), 287-314.

[5] Ng, R., & Indran, N. J. P. o. (2023). Granfluencers on TikTok: Factors Linked to Positive Self-portrayals of Older Adults on Social Media. 18 (2), e0280281.

[6] Joglekar, S., Sastry, N., & Redi, M. (2017). Like at First Sight: Understanding User Engagement with the World of Micro Videos. Paper Presented at the Lecture Notes in Computer Science (Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics).

[7] Thompson, J. (2020). An Exploratory Case Study: Using Web-based Micro Videos as a Parent Involvement Tool to Support Families with Preschool Age Children in Early Numeracy Development.

[8] Gorrotxategi, P. J., Serrano Poveda, M. E., Garrido Torrecillas, F. J., Vázquez Fernández, M. E., Mambié Meléndez, M., & Cenarro Guerrero, M. T. (2020). How Have Children Experienced the Confinement Due to Coronavirus? Pediatria de Atencion Primaria, 22(87), 273-281.

[9] Soleymani, M., & Mortillaro, M. (2018). Behavioral and Physiological Responses to Visual Interest and Appraisals: Multimodal Analysis and Automatic Recognition. Frontiers in ICT, 5(JUL). doi: 10.3389/ fict.2018.00017.

[10] Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & Group, P. (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: the PRISMA Statement. PLoS Med, 6(7), e1000097. doi: 10.1371/journal.pmed.1000097.

[11] Munn, Z., Tufanaru, C., & Aromataris, E. J. A. T. A. J. o. N. (2014). JBI's Systematic Reviews: Data Extraction and Synthesis. 114(7), 49-54.