

Socio-Psychological Impact of Online Schooling on Students' and Parents: A Case Study of North Delhi School

Dr. Praveen Kumar Surjan¹, Dr. Akhilesh Kumar Gautam²

¹Assistant Professor, MANUU Campus, Varanasi Department of Education & Training, Maulana Azad National Urdu University, Hyderabad, Telangana State, India

²Assistant Professor, Department of Education, H.N. B. Garhwal University, SRT, Campus, Badshahi Thaul, Tehri, Uttarakhand, India

DOI: <https://doi.org/10.47772/IJRISS.2026.100700422>

Received: 22 July 2026; Accepted: 28 July 2026; Published: 03 August 2026

ABSTRACT

This paper aims to understand the socio-psychological impact of online schooling on students and parents. The paper only aims to discuss the important issues and the nature of problems. A case study has been done in class 8th of a government school of North Delhi. Data was collected through purposive sampling and unstructured interviews were taken. The socio-economic contexts from which the students belong have shown some adverse impacts with regard to social, emotional and cognitive development. The issue of digital divide, parenting stress and cognitive fatigues were found to be common. With regard to the theoretical perspective results were analyzed and discussed.

INTRODUCTION

The Novel Corona Virus COVID 19 was declared a pandemic by the WHO on March 11th, 2020. Strict measures were proposed and taken by the countries affected to contain the virus as a result nationwide or in part lockdown were imposed with respect to the severity and risk assessment of epidemic in the concerned region. The measures were going to impact the societies, economy and individuals especially children in an unprecedented manner (WHO, 2020). Schools were closed and classes were held online through the virtual mediums like Zoom, Google Meet, and WhatsApp etc. These virtual classrooms have certain prerequisites i.e. a good internet connection with a Smartphone, tab or laptop through which students and teachers could meet. Apart from these, at home, students or parents and the teachers have to have the skills to operate and engage with the technological devices efficiently failing which the online mode of teaching and learning would be impossible or obstructed. The prerequisites were not fulfilled by the schools and they were the responsibilities of the teacher and the parents. To ensure the consistent education of their wards, parents have to avail the prerequisites which put an extra economic burden and psychological pressure to supervise the wards appropriate behavior during the virtual classroom. In fact, the socio-psychological impacts of online mode of teaching and learning are varied and multifaceted. Under the circumstances it is necessary to understand the nature and issues related to psycho-social impact of online mode of classroom on parents and students. For this purpose, a case study was conducted with students and parents of a school of North Delhi.

Theoretical Perspective

Knowledge related to internet and ICT skills have become a significant and prominent rhetoric in contemporary world because of its use in every aspect of society whether its employment, social interaction, education etc. Access to internet and ICT service and equipment are not equally distributed as a result inequality with respect to access to internet has become a prominent topic of research. It has been established that lack of knowledge and skills related to ICT could have severe negative impact on the educational and career opportunities. It is extended also to the social interaction as communication and interaction are happening through social networking sites. Digital divide actually results into social exclusion. A shift with regard to access to ICT has taken place. The focus has also been on the nature and quality of internet services

and devices along with it the capability to operate has also been focused. Young people specially have been considered as digital natives who can adopt technology with any pressure and efforts while they too face challenge with regard to use and accessibility. (Livingstone & Helsper, 2007; Peter & Valkenburg, 2006; Selwyn, 2004 and van Dijk, 2006; Holloway & Valentine, 2003; Ling & Haddon, 2008; Haddon, 2004; Prensky, 2001; Lim, 2009)

Although digital divide which is referred to as a divide between people availing ICT equipments and knowhow and people who could not avail it, is not a new concept but during COVID 19 it emerged as a prominent social problem due to closure of educational institutes and shifting of offline classes to online mode. (Attewell et al., 2003, p. 277) In the rhetoric of digital divide, computers are considered as a powerful tool for learning and its lacking has been regarded as serious disadvantages that can persist throughout the childhood years. (Attewell et al., 2003, p. 278). The availability, quality, efficacy of ICT related equipments and supports by parents, teachers and educational systems have been seen as a significant factor in determination of educational abilities and social equality. (Attewell 2001; Becker 1999; Wenglinsky 1998; Attewell et al., 2003, p. 278).

Intensive use of computers in school and home by restructuring curriculum and pedagogy has been advocated by Papert. (Attewell et al., 2003, p. 279). While, others, like David Bolt and Ray Crawford (2000) and Jane Healy (1998) has indicated many potential dangers of computer use by children. It has been argued that it attracts problems related to vision, posture and adversely impact on childhood learning experiences by cutting physical and outdoor activity and play which are prerequisites for emotional and cognitive development. (Attewell et al., 2003, p. 279)

According to Alliance for Childhood (2000) computers pose a threat to normal developmental processes of young children by snatching opportunities to engage with hand-on activities, play and interaction with the nature (Attewell et al., 2003, p. 279). A utopian and anti-utopian technological discourse has been originated by Iacono and Kling (1986). The utopians think that the social problems can be solved by infusion of technology on the other hand anti-utopians think it as a thoughtless adoption of inappropriate technology leading to negative impacts on children. (Attewell et al., 2003, p. 279)

It has been found that home computers are not used in an appropriate manner for educational purpose rather children were found playing games. (Giacquinta et al. 1993; Attewell et al., 2003, p. 281). Use of home computers is only fruitful in the presence of parents and older siblings having efficacy in this regard, who keep supervision and provide appropriate guidance as per requirement. It put those lacking support in a disadvantaged position especially poor. (Attewell et al., 2003, p. 281). Presence of computers at home has been found to have significantly increasing test scores in reading and math. A second digital divide has also been found where presence of home computer along with educated family members has resulted into higher test scores. (Attewell and Battle, 1999; Attewell et al., 2003, p. 281)

Use of computers is associated with emotion or personality rather than cognitive development or skills. Increased feeling of loneliness and decline in social involvement has been associated with greater internet use by teens and adults. Less contended are those using electronic media heavily. (Kraut et al. 1998; Roberts et al. 1999). While displacement i.e. time spent on computers resulting into less time spent on other useful activities has been found among children which has become a concern for critics but the same has not been found to be true for adults. (Robinson, Barth & Kohut 1997; Robinson & Kestnbaum 1999; Robinson et al. 2000.)

Children with home computer don't spend much time when accompanied by an adult. Active involvement of adult is required for educational benefits. Most of the time spent by children on computers is for playing games, that's too, away from adults. (Giacquinta's, 1994; Roberts et al., 1999). Children who use computers a lot are less likely to engage in developmentally fruitful activities. (Healy, 1998). Time spent on digital world significantly decreases the time for activities productive for intellectual development. Displacement is prevalent throughout the activities in which children are involved. (Attewell et al., 2003, p. 290)

The investment model explains how social economic disadvantage impacts children's development through parents' decisions regarding allocation of range of resources like money, time and energy which are significantly associated with children's cognitive development. Similarly the family stress model explains that

impact of poverty on parents' capabilities and its influence on the behavior of the children. (Foster et al., 2005; Gershoff et al., 2007; Linver et al., 2002; Hartas, 2011, p. 3). A significant relationship exists between parental investment in home learning and children's early linguistic and cognitive development which is a precursor of success at school. Literacy rich environment has been found to be contributing in children's literacy, language, personality and behavior regulation. A home environment rich in books and print materials where parents engage with children contribute to the literacy and language skills and it also helps in emotional and behavioral regulations (Dickinson & Tabors, 2001; Whitehurst et al., 1999; Brinton & Fujiki, 1993; Raz & Bryant, 1990; Hartas, 2011, p. 3)

The nature of economic and human capital parents has shaped the quality and nature of relationship they would have with their children, their learning and capabilities they wish to develop in them. Educational qualification of mother has been found to be related to kind of income and human and cultural capital family would have along with that it is also established that children literacy competence is associated with parental education. Educated mothers are more likely to be beneficial for children as educated women are more likely to contribute in family income and educational activities of children resulting into emotional and cognitive development of child. Family income has a positive correlation with the children education and development (Hoff et al., 2002; Duncan & Magusson, 2002; Hartas, 2011, p. 3). The income of the family and the education of mother are related moderately to the language development. A disadvantage with this regard is found to be responsible to externalizing and internalizing behavior difficulties. (Yeung et al., 2002; George et al., 2007)

COVID 19 has disrupted the students' processes of learning in an unprecedented manner and shifting from offline to online have been difficult. This shift has posed a unique challenge because neither students nor parents nor teachers had any previous experience of online teaching and learning. While key to academic success is engagement, the nature of engagement in academic activity was impacted by COVID 19 entirely as it disrupted all factors and determinants. The factors like internet, internet speed, equipments, traumatic experiences around and psychological health. The students have negatively evaluated the online learning and its effectiveness. (Zainuddin et al., 2020; Buelow et al., 2018; Carter Jr et al., 2020; Hong et al., 2022, p. 142). The cognitive theory of multimedia learning (CTML) has explored the impact of multimedia and ICT on the cognitive and learning processes. There is a limitation in Individual's cognition and it can only process a limited amount of information in a given time. Attention level is critical in MOOC learning environment for effective learning. (Hong et al., 2022, p. 142; Mayer, 2005; Chang et al., 2019).

An individual's belief in his or her own ability to succeed has been defined as self-efficacy by Bandura (1977). Self efficacy is important in decision of individual to engage in any activity and persist in case of any obstruction. With respect to this a framework has been thought of in the context of online learning which includes learner-environment interaction and learner-content interaction. Self efficacy can impact performance hence various types of self efficacies have been proposed in the context of online learning and teaching. Chu and Ysai (2009) proposed the model of Internet Self Efficacy (ISE). ISE has been explained as one's belief about their ability to successfully use the internet which is a significant step in online mode of learning. It is the self efficacy when individual interact with a system, equipment, internet to engage in learning. ISE has been divided into two categories, General Internet Self Efficacy (GISE) and Communication Internet Self Efficacy (CISE). GISE is related with the ability to operate a system and internet confidently and overcome any difficulty that arises. CISE is the confidence to interact and communicate with others using information and communication technology and internet. (Moore, 2013; Hong et al., 2022; Morfoot & Stanley, 2018; Chu and Tsai, 2009; Eastin & LaRose, 2000; Jokisch et al., 2020)

Attention is a significant factor in cognitive processing of events and learning. A lot of things and stimuli are present in the environment but could not be responded or perceived due to limited attention capacity. In online learning attention becomes a significant factor for successful learning. Attention has been seen in a dichotomy i.e. first, inattention has been related to mind-wandering causing loss of attention while second is full attention meaning mind un-wandered. Mind un-wandered refers to process of being attentive to ones emotions and thoughts during the cognitive process. It is related to thought someone experienced while engaging in any cognitive activity. Failure in attention or mind wandering could be assessed by errors made by the individuals at task. It is regarded as cognitive fatigue. Cognitive fatigue has been defined as deterioration with respect to time in the ability to perform some mental tasks. Cognitive fatigue has been extended in the ICT world and

regarded as Internet Cognitive Fatigue (ICF). ICF has been seen as a reduction of attention while engaged in a task due to the distraction by stimuli which is unrelated. When our attention is interrupted by the distraction from the environment or thoughts, failure in intended action is inevitable. Opposite to it better performance and accuracy is ensured while engaging with high level of mind unwandered. (Siegel, 2016; Schad et al., 2012; Pashler, 1998; Baars, 1997; Wu & Xie, 2018; Geva et al., 2013; DeLuca 2005, Hollis & Was, 2016; Unsworth et al., 2012; Was et al., 2019; Hong et al., 2022)

Children externalizing behaviors like violence, delinquency, problem in attention are highly associated to parenting stress. A correlation has been found between externalizing and internalizing problems (depression or anxiety etc.). (Kazdin, 1995; Koot, 1995; Verhulst, 1995).

Stress negatively influences the nature of relationship between the parents' and children. Parenting stress cause hostility, controlling tendency and reactivity with respect to interaction and responding to the need and requirements of children. (Downey and Coyne, 1990; Langrock et al. 2002; Goodman and Gotlib, 2002). Inability of the parents in this regard create obstacles in the emotional and social development of children (Deater-Deckard and the ALSPAC Research Team, 1997). Mental and physical health of both parents and children hamper due to high level of exposure to stressors. (Brown and Harris, 1989; Goodyer, 1990). A perception of imbalance with respect to the assumed role of parenting and availability of resources and failure thereof create stress (Hobfoll, 1998; Lazarus, 1999) (Goldstein, 1995). In this respect resources include both tangible (house, resources, food etc) and intangible things (emotional support, responsiveness etc.) (Deater-Deckard and Scarr, 1996). The theory of parenting stress called PCR theory consists of three components; first of all, stress arising within the parents (P), stress caused by the behavior of the children (C) and the stress arising out of parent-child relationship (R). All the three components of stress are likely to be high in families where parenting stress is high and cause disruption in parent child relationship (Abidin, 1990; 1992; 1995).

METHODOLOGY

A case study was conducted in one government school of North Dist of Delhi. For the purpose of the study a purposive sampling was done and data was collected from class 8th students and parents with unstructured interview.

RESULTS

Some prominent themes and issues have been discussed in the following section with regard to the psycho-social impact of online classes:

1. A dedicated device to attend online classes was absent in most of the cases.
2. Access to uninterrupted internet service was lacking.
3. Both parents and students were found to have issues with ICT operation due to lack of knowledge, skills and experience in this regard.
4. Most of the students were unable to connect with classes and peers digitally as per their choice because of lack of a personal Smartphone. Conflict arises due to multiple claims on devices.
5. Students have access to phone at night majorly for engaging with peers and ICT related activities.
6. Sleep cycle was reported to be badly influenced.
7. Playing games online was prevalent among the students.
8. A difference of parental support was found while some providing guidance to their ward's others were unable to do so.
9. Students' engagement with family members was affected and they felt loneliness very often.

10. Both internalizing and externalizing behavior were reported in most of the students.
11. Parenting stress was common among most of the parents. Mothers more than fathers were stressed.
12. A variation was found among parents with respect to allocation of range of resources like money, time and energy.
13. More behavioral problems in students were prevalent in families where parents were more stressed.
14. Internet Cognitive fatigue has been prevalent. Students were found to be frustrated during online classes because of various interruption at home and ICT malfunctioning
15. Diversion and distraction were very common while accessing internet and devices.
16. Students reported to be less confident while using internet, interacting with apps, engaging with task as they didn't know in case any untoward incident happened or obstacle comes.

DISCUSSION AND ANALYSIS

The COVID 19 has impacted the daily life of the students in an unprecedented manner. The schools were shut and classes were shifted in online mode. Online classes required some specific prerequisite for successful and smooth functioning of classes. The present study was related to particular government school of North Delhi. An important feature of the government schools is that most of its students belong to the lower or lower middle class. This section of the society significantly lacks the required socio-economic conditions for ideal development of a child. For online classes, Smartphone, a good internet connection, basic skill and knowledge of ICT are all required, while, it has been observed that most of the students did not have the dedicated smart phones and good internet connection. Parents had lost their job due to lockdown and fulfillment of the demand for online classes was like an economic burden. The digital divide was apparent and it has some implication in education in widening the social inequality already existing in society. Due to lockdown children were unable to interact with peers and friends and the only way to interact was digital media. In this regard it has been observed that digital divide is also causing social exclusion where students are unable to meet digitally with their friends causing feeling of loneliness and depression. Those having digital mediums were reported to spend time without any supervision in virtual world in activities not pertaining to education which is negatively impacting their cognitive and social development. A displacement is occurring as the time that could have been invested in physical activity and family interaction which leads to emotional and social development is spent online causing both social and physical problems. Accesses to internet open a vast arena of information and unfiltered flow of information to the students could cause more damage than good. Due to COVID parents are already in stress due to parenting pressure, providing a mobile phone with internet access to their children give them a vent where they could avoid conflict with children by letting them engage in digital world. In the family with single Smart phone children get access to mobile phones at night. Most of the times they spent were in non educational activities in absence of any adult supervision. It further impacts their sleeping cycle and social, emotional and cognitive development. In families where parents were educated students got support in their education that minimized the stress of online classes.

Parents of the most of the children are less likely to invest in resources like money, time and energy and these were associated with children's cognitive development. But seeing the context it is predictable that children's cognitive development will be badly affected. A social and cultural reproduction is an inherent characteristic of these families. This inability of parents with regard to resources and important decisive factors for successful schooling and parenting attracts parenting stress which causes hostility and violence at home. It is also a big factor in children internalizing and externalizing behavioral problems. According to CTML, there is a limitation with regard to our attention with respect to the stimuli presented by the environment or ICT. The attention during online were badly impacted due to factors presented by environment, lack of efficiency in dealing with ICT which cause frustration thereby distraction.

The Internet Self Efficacy, General Internet Self Efficacy and Communication Internet Self Efficacy were

found to be moderate. The problem was availability of necessary equipments, net access and availability of devices. Internet Cognitive Fatigue was most prevalent issues faced by the students. The main reason was the availability of uninterrupted internet connectivity. While searching for information and engaging in classroom the interruption was frustrating and de-motivating for the students. There was huge difference between intended action and action done by the internet.

CONCLUSION

The pandemic COVID 19 has compelled the schools to go online although seeing the diverse socio-economic status the future of online classes seems to be grim. The digital divide is a harsh reality which cannot be ignored. In online mode of classes not only parents have to bore the burden which actually should be borne by state it also causes serious damage to the scope to the normal social, emotional and cognitive development of children. Online classes in the family work as a stimulator to parenting stress and a hostile home environment, frustration and cognitive fatigue. The biggest disaster is that it mask the importance of socio-psychological role that school classroom and school as a whole play in the life of students irrespective of socio-economic context they belong. Online classes only would widen the gap that already exists in our society. The question of responsibility of preparedness for online classes remains unanswered although it is a very significant question. Although the importance of ICT and online classes has become a popular rhetoric, in Indian society it would only attract a social disaster by only going against the constitutional principles.

REFERENCES

1. "Abidin, R. R. (1995). The parenting stress index professional manual. Lutz, FL: Psychological Assessment Resources."
2. "Alliance for Childhood. 2000. Fool's Gold: A Critical Look at Computers and Childhood. Alliance for Childhood." (Attewell et al., 2003, p. 293)
3. Attewell, P., Battle, J., & Suazo-Garcia, B. (2003). Computers and Young Children: Social Benefit or Social Problem? *Social Forces*, 82(1), 277–296. <https://doi.org/10.1353/sof.2003.0075>
4. "Attewell, Paul, and Juan Battle. 1999. "Home Computers and School Performance." *The Information Society* 15:1-10." (Attewell et al., 2003, p. 293)
5. "Attewell, Paul. 2001. "The First and Second Digital Divides" *Sociology of Education* 74:252-59." (Attewell et al., 2003, p. 293)
6. "Baars, B. J. (1997). Some essential differences between consciousness and attention, perception, and working memory. *Consciousness and Cognition*, 6(2–3), 363–371. <https://doi.org/10.1006/ccog.1997.0307>" (Hong et al., 2022, p. 151)
7. "Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191–215. <https://doi.org/10.1037/0033-295X.84.2.191>" (Hong et al., 2022, p. 151)
8. "Becker, Henry Jay. 1999. "Software Use in Classes of Different Levels of Student Ability." Snapshot #8 from "Teaching, Learning and Computing 1998: A National Survey of Schools and Teachers." Center for Research on Information Technology and Organizations, University of California, Irvine. [<http://www.crito.uci.edu/tlc/htmlfindings.html>]" (Attewell et al., 2003, p. 293)
9. "Bolt, David, and Ray Crawford. 2000. Digital Divide: Computers and Our Children's Future. TV Books." (Attewell et al., 2003, p. 294)
10. "Brinton, B. & Fujiki, M. (1993) Language, social skills and socio-emotional behaviour. *Clinical forum: language and social skills in the school age population*, Language, Speech and Hearing Services in Schools, 24, 194-19" (Hartas, 2011, p. 21)
11. "Brown, G. W., and Harris, T. O. (1989). Life events and illness. London: Unwin Hyman. Campbell, A. M. (2020). An increasing risk of family violence during the Covid-19 pandemic: strengthening community collaborations to save lives. *Forensic Science International: Reports*, 2, 100089."
12. "Buelow, J. R., Barry, T., & Rich, L. E. (2018). Supporting learning engagement with online students. *Online Learning*, 22(4), 313–340. <https://doi.org/10.24059/olj.v22i4.1384>" (Hong et al., 2022, p. 151)
13. "Carter Jr, R. A., Rice, M., Yang, S. & Jackson, H. A. (2020). Self-regulated learning in online learning environments: Strategies for remote learning Strategies. *Information and Learning Sciences*, 121(5/6), 321-329. <https://doi.org/10.1108/ILS04-2020-0114>" (Hong et al., 2022, p. 151)

14. "Chang, J. J., Lin, W. S., & Chen, H. R. (2019). How attention level and cognitive style affect learning in a MOOC environment? Based on the perspective of brainwave analysis. *Computers in Human Behavior*, 100, 209–217. <https://doi.org/10.1016/j.chb.2018.08.016>" (Hong et al., 2022, p. 151)
15. "Chu, R. J.-C., & Tsai, C. C. (2009). Self-directed learning readiness, Internet self-efficacy and preferences towards constructivist Internet-based learning environments among higher-aged adults. *Journal of Computer Assisted Learning*, 25(5), 489–501. <https://doi.org/10.1111/j.1365-2729.2009.00324.x>." (Hong et al., 2022, p. 151)
16. "Deater-Deckard, K., and Scarr, S. (1996). Parenting stress among dual-earner mothers and fathers: Are there gender differences? *Journal of Family Psychology*, 10, 45-59"
17. "Deater-Deckard, K., and The ALSPAC Research Team (1997). Parenting stress in different family contexts: A population study of intact, remarried, and single-mother families. Paper presented at the biennial meeting of the Society for Research in Child Development, April, Washington D.C."
18. "DeLuca, J. (2005). Fatigue, cognition, and mental effort. In J. Deluca (Eds.), *Fatigue as a window to the human brain* (pp. 37–57). The MIT Press." (Hong et al., 2022, p. 151)
19. "Dickinson, D. K. & Tabors, P. (2001) *Beginning literacy with language* (Baltimore, MD, Paul H. Brooks)." (Hartas, 2011, p. 21)
20. "Downey, G., and Coyne, J. C. (1990). Children of depressed parents: An integrative review. *Psychological Bulletin*, 108,50-76."
21. "Duncan, G. J., & Magnusson, K. A. (2002) Off with Hollingshead socio-economic resources, parenting and child development, in: M. H. Bornstein & R. H. Bradley (Eds) *Socio-economic status, parenting and child development* (Mahwah, NJ, Lawrence Erlbaum), 189-207." (Hartas, 2011, p. 21)
22. "Eastin, M. S., & LaRose, R. (2000). Internet self-efficacy and the psychology of the digital divide. *Journal of Computer Mediated Communication*, 6(1), JCMC611. <https://doi.org/10.1111/j.1083-6101.2000.tb00110.x>" (Hong et al., 2022, p. 151)
23. "Foster, M., Lambert, R., Abbot-Shim, M., McCarty, F. & Franze, S. (2005) A model of home learning environment and social risk factors in relation to children's emergent literacy and social outcomes, *Early Childhood Research Quarterly*, 20, 13-36" (Hartas, 2011, p. 21)
24. "George, A., Hansen, K. & Schoon, I. (2007) Child behaviour and cognitive development, in: K. Hansen, K. and H. Joshi (Eds) *Millennium Cohort Study Second Survey: a user's guide to initial findings* (London, Centre for Longitudinal Studies, Institute of Education, University of London), 6-35." (Hartas, 2011, p. 21)
25. "Gershoff, E., Aber, J., Raver, C. & Lennon, M. (2007) Income is not enough: incorporating material hardship into models of income association with parenting and child development, *Child Development*, 78(1), 70-" (Hartas, 2011, p. 22)
26. "Geva, R., Zivan, M., Warsha, A., & Olchik, D. (2013). Alerting, orienting or executive attention networks: Differential patters of pupil dilations. *Frontiers in Behavioral Neuroscience*, 7, 145. <https://doi.org/10.3389/fnbeh.2013.00145>" (Hong et al., 2022, p. 151)
27. "Giacquinta, Iospeh, JoAnne Bauer, and Jane Levin. 1993. *Beyond Technology's Promise: An Examination of Children's Educational Computing at Home*. Cambridge University Press." (Attewell et al., 2003, p. 294)
28. "Golberstein, E., Wen, H., & Miller, B. F. (2020). Coronavirus disease 2019 (COVID-19) and mental health for children and adolescents. *JAMA Pediatrics*, 174, 819–820."
29. "Goodman, S. H., and Gotlib, I. H. (2002). Transmission of risk to children of depressed parents: Integration and conclusions. In S. Goodman and I. Gotlib (Eds.), *Children of depressed parents: Mechanisms of risk and implications for treatment* (pp. 307-326). Washington, DC: American Psychological"
30. "Goodyer, I. M. (1990). Annotation: Recent life events and psychiatric disorders in school age children. *Journal of Child Psychology and Psychiatry*, 31, 839–848"
31. "Haddon, L. (2004). *Information and communication technologies in everyday life: A concise introduction and research guide*. Oxford: Berg." (Lim, 2009, p. 1252)
32. Hartas, D. (2011a). Families' social backgrounds matter: Socio-economic factors, home learning and young children's language, literacy and social outcomes. *British Educational Research Journal*, 37(6), 893–914. <https://doi.org/10.1080/01411926.2010.506945>

33. Hartas, D. (2011b). The ecology of young children's behaviour and social competence: Child characteristics, socio-economic factors and parenting. *Oxford Review of Education*, 37(6), 763–783. <https://doi.org/10.1080/03054985.2011.636226>
34. "Hobfoll, S. E. (1998). *Stress, culture, and community: The psychology and philosophy of stress*. New York: Plenum."
35. "Hoff, E., Laursen, B. & Tardiff, T. (2002) Socioeconomic status and parenting, in: M. H. Bornstein (Ed.) *Handbook of parenting: biology and ecology of parenting* (vol. 2) (Washington DC: Psychology Press), 231-252)." (Hartas, 2011, p. 22)
36. "Hollis, R. B., & Was, C. A. (2016). Mind wandering, control failures, and social media distractions in online learning. *Learning and Instruction*, 42, 104-112. <https://doi.org/10.1016/j.learninstruc.2016.01.007>" (Hong et al., 2022, p. 152)
37. "Holloway, S. L. & Valentine, G. (2003). *Cyber kids: Children in the Information Age*. London: Routledge Falmer." (Lim, 2009, p. 1252)
38. Hong, J.-C., Liu, X., Cao, W., Tai, K.-H., & Zhao, L. (2022). Effects of Self-Efficacy and Online Learning Mind States on Learning Ineffectiveness during the COVID-19 Lockdown. 14
39. "Iacono, Suzanne, and Rob Kling. 1986."Computerization Movements and Tales of Technological Utopianism." Pp. 85-105 in *Computerization and Controversy*, 2d ed., edited by Rob Kling. Academic Press." (Attewell et al., 2003, p. 294)
40. "Jokisch, M. R., Schmidt, L. I., Doh, M., Marquard, M., & Wahl, H. W. (2020). The Role of internet self-efficacy, innovativeness and technology avoidance in breadth of internet use: Comparing older technology experts and non-experts. *Computers in Human Behavior*, 111, 106408. <https://doi.org/10.1016/j.chb.2020.106408>" (Hong et al., 2022, p. 152)
41. "Kazdin, A. E. (1995). Conduct disorder. In F. C. Verhulst and H. M. Koot (Eds.), *The epidemiology of child and adolescent psychopathology* (pp. 258-290). Oxford: Oxford University Press."
42. "Koot, H. M. (1995). Longitudinal studies of general population and community samples. In F. C. Verhulst and H. M. Koot (Eds.), *The epidemiology of child and adolescent psychopathology* (pp. 337-365). Oxford: Oxford University Press."
43. "Kraut, Robert, M. Patterson, and V. Lundmark. 1998. "Internet Paradox: A Social Technology That Reduces Social Involvement and Psychological Well-being." *American Psychologist* 53:1017-31." (Attewell et al., 2003, p. 295)
44. "Langrock, A. M., Compas, B. E., Keller, G., Merchant, M. J., and Copeland, M. E. (2002). Coping with the stress of parental depression: Parents' reports of children's coping, emotional, and behavioral problems. *Journal of Clinical Child and Adolescent Psychiatry*, 31, 312-324."
45. "Lazarus, R. S. (1999). *Stress and emotion: A new synthesis*. New York: Springer."
46. Lee, J., Chin, M., & Sung, M. (2020). How Has COVID-19 Changed Family Life and Well-Being in Korea? *Journal of Comparative Family Studies*, 51(3–4), 301–313. <https://doi.org/10.3138/jcfs.51.3-4.006>
47. Lim, S. S. (2009). Home, School, Borrowed, Public or Mobile: Variations in Young Singaporeans' Internet Access and Their Implications. *Journal of Computer-Mediated Communication*, 14(4), 1228–1256. <https://doi.org/10.1111/j.1083-6101.2009.01488.x>
48. "Ling, R. & Haddon, L. (2008). Children, youth and the mobile phone. In K. Drotner & S. Livingstone (eds.), *The international handbook of children, media and culture* (pp. 137–151). London: Sage." (Lim, 2009, p. 1253)
49. "Linver, M., Brooks-Gunn, J., & Kohen, D. (2002) Family processes as pathways from income to young children' development, *Developmental Psychology*, 38(5), 719-73" (Hartas, 2011, p. 22)
50. "Livingstone, S. & Helsper, E. (2007). Gradations in digital inclusion: Children, young people and the digital divide. *New Media & Society*, 9, 671–696." (Lim, 2009, p. 1253)
51. "Mayer, R. E. (2005). Cognitive theory of multimedia learning. In R. E. Mayer (Eds.), *The Cambridge handbook of multimedia learning* (pp. 31-48). Cambridge University Press." (Hong et al., 2022, p. 153)
52. "Moore, M. G. (2013). The Theory of transactional distance. In M. G. Moore (Ed.), *Handbook of Distance Education* (3rd ed., pp. 66–85). Routledge." (Hong et al., 2022, p. 153)
53. "Morfoot, C., & Stanley, H. (2018). Simulation-based education for neonatal skills training and its impact on self-efficacy in post-registration nurses. *Infant*, 14(2), 77–81. https://www.infantjournal.co.uk/pdf/inf_080_ain.pdf" (Hong et al., 2022, p. 153)

54. "Pashler, H. E. (1998). *The Psychology of attention*. The MIT Press." (Hong et al., 2022, p. 153)
55. "Peter, J. & Valkenburg, P. N. (2006). Adolescents' Internet use: Testing the "disappearing digital divide" versus the "emerging digital differentiation" approach. *Poetics*, 34, 293 – 305." (Lim, 2009, p. 1253)
56. "Prensky, M. (2001). *Digital natives, digital immigrants*. Retrieved 10 March, 2009 from <http://www.marcprensky.com/writing/Prensky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part1.pdf>." (Lim, 2009, p. 1253)
57. "Raz, I. & Bryant, P. (1990) Social background, phonological awareness and children's reading, *British Journal of Developmental Psychology*, 8, 209-225." (Hartas, 2011, p. 22)
58. "Roberts, Donald F., Ulla Foehr, Victoria Rideout, and Mollyann Brodie. 1999. *Kids & Media @ the New Millennium*. The Henry J. Kaiser Family Foundation." (Attewell et al., 2003, p. 295)
59. "Robinson, John, and Meyer Kestnbaum. 1999. "The Personal Computer, Culture, and Other Uses of Free Time." *Social Science Computer Review* 17:209-16." (Attewell et al., 2003, p. 295)
60. "Robinson, John, Kevin Barth, and Andrew Kohut. 1997. "Personal Computers, Mass Media, and Use of Time." *Social Science Computer Review* 15:65-82." (Attewell et al., 2003, p. 295)
61. "Robinson, John, Meyer Kestnbaum, Alan Neustadt!, Anthony Alvarez. 2000. "Mass Media and Social Life Among Internet Users" *Social Science Computer Review* 18:490-501." (Attewell et al., 2003, p. 295)
62. "Schad, D. J., Nuthmann, A., & Engbert, R. (2012). Your mind wanders weakly, your mind wanders deeply: Objective measures reveal mindless reading at different levels. *Cognition*, 125(5), 179–194. <https://doi.org/10.1016/j.cognition.2012.07.004>" (Hong et al., 2022, p. 153)
63. "Selwyn, N. (2004). Reconsidering political and popular understandings of the digital divide. *New Media & Society*, 6, 341–362." (Lim, 2009, p. 1253)
64. "Siegel, R. D. (2016). *Positive psychology: Harnessing the power of happiness, mind-unwandered, and inner strength*. Boston, MA: Harvard Health Publications.
<http://www.sobtell.com/images/questions/1506616731-positive-psychologyharnessing-the-power-of-happiness-mindfulness-and-inner-strength-harvard-health.pdf>" (Hong et al., 2022, p. 153)
65. "Unsworth, N., McMillan, B. D., Brewer, G. A., & Spillers, G. J. (2012). Everyday attention failures: An Individual differences investigation. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 38(6), 1765–1772. <https://doi.org/10.1037/a0028075>" (Hong et al., 2022, p. 154)
66. "van Dijk, J. A. G. M. (2006). Digital divide research, achievements and shortcomings. *Poetics*, 34, 221–235." (Lim, 2009, p. 1254)
67. "Verhulst, F. C. (1995). A review of community studies. In F. C. Verhulst and H.M. Koot (Eds.), *The epidemiology of child and adolescent psychopathology* (pp. 146-177). Oxford: Oxford University Press."
68. "Was, C. A., Hollis, R. B., & Dunlosky, J. (2019). Do students understand the detrimental effects of mind wandering during online learning. *Computers & Education*, 135, 113–122. <https://doi.org/10.1016/j.compedu.2019.02.020>" (Hong et al., 2022, p. 154)
69. "Wenglinsky, Harold. 1998. *DoesIt Compute? The Relationship between Educational Technology and Student Achievement in Mathematics*. The Policy Information Center of the Educational Testing Service." (Attewell et al., 2003, p. 296)
70. "Whitehurst, G., Zevenberger, A., Crone, D., Schultz, M., Velting, O. & Fishcer, J. (1999) Outcomes of an emergent literacy intervention from Head Start through second grade, *Journal of Educational Psychology*, 9, 261-272." (Hartas, 2011, p. 23)
71. "Wu, J. Y., & Xie, C. (2018). Using time pressure and note-taking to prevent digital distraction behavior and enhance online search performance: Perspectives from the load theory of attention and cognitive control. *Computers in Human Behavior*, 88, 244–254. <https://doi.org/10.1016/j.chb.2018.07.008>" (Hong et al., 2022, p. 154)
72. "Yeung W., Linver, M. & Brooks-Gunn, J. (2002) How money matters for young children's development: parental investment and family processes, *Child Development*, 73(6), 1861-1879." (Hartas, 2011, p. 23)
73. "Zainuddin, Z., Perera, C. J., Haruna, H., & Habiburrahim, H. (2020). Literacy in the new norm: Stay-home game plan for parents. *Information and Learning Sciences*, 121(7/8), 645-653. <https://doi.org/10.1108/ILS-04-2020-0069>" (Hong et al., 2022, p. 154)