Utilisation of multiple intelligence and instructional technology for effective learning in covid 19 period

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Abstract - The environment of educational technology is changing drastically.PreCovid and Covid era of education is really distinct in case of educational technology especially in face of instructional technology. It influences many intelligences among multiple intelligence.Hence the investigator tries to re-examine instruction and analyses the changing environment of educational technology and ways to incorporate the theory of multiple intelligences for effective learning in Covid 19 period and the study is titled UTILISATION OF MULTIPLE INTELLIGENCE AND INSTRUCTIONAL TECHNOLOGY FOR EFFECTIVE LEARNING IN COVID 19 PERIOD

Key Words: Multiple intelligence, instructional technology,Covid 19

I. INTRODUCTION

In Covid 19 Pandemic season the students are accessing school via online platforms like videoconferencing tools. It's a matter of question how willing are teachers to cope up with changed scenario.

Furthermore, according McKenzie (2002), Educational technology can map multiple intelligences and no theory is more capable of matching educational technology to the needs of learners than Gardner's model.

According to Gardner (2010) multiple intelligence refers to a learner based philosophy that characterises human intelligence as having multiple dimensions that must be acknowledged and developed in education. Multiple intelligence here refers to work of Howard Gardner of Harvard Graduate school of education. Gardner argues that all humans have these intelligences but people differ in strengths and combinations of intelligence. He believes that these can be enhanced through training and practice.

Educational technology (Commission on educational technology, U.S.A,1996)is a systematic way of designing, implementing and evaluating the total process of learning and teaching in terms of specific objectives based on research in human learning and communication and employing a combination of human and nonhuman resources to bring about more effective instruction while Instructional technology includes practical techniques of instructional delivery that systematically aim for effective learning, whether or not they involve the use of media. It is a basic purpose of the field of instructional technology to promote and aid the application of these known and validated procedures in the design and delivery of instruction(Gagne,2013)

II. MULTIPLE INTELLIGENCE AND EDUCATIONAL TECHNOLOGY

The multiple intelligences mapped in this study (McKenzie,2009) are verbal,logical,visual,kinaesthetic,musical,intrapersonal,interpersonal,naturalist and existential intelligences. The below table shows the ways multiple intelligences can be mapped with digital technologies in the current era.

INTELLIGENCE	DIGITAL TECHNOLOGIES
Verbal	Key boards,electronic mail,speech recognition devices,text bridges
Logical	Graphing calculators,FTP clients,gophers,search engines
Visual	Monitors,digital cameras,cam recorders,scanners
Kinaesthetic	Mouses,joysticks,assistive technologies

Musical	Speakers,music players
Intrapersonal	Online forms
Interpersonal	Chats,message boards,instant messengers
Naturalist	File managers,semantic mapping tools
Existential	Virtual reality,virtual communities,blogs,wikis,simulations

In the current scenario the educators are compelled to make use of *Zoom meetings, Microsoft Teams, Cloud Meeting, Cisco Webex, Udemy, Coursera, Google Classrooms etc.*There are so many other online platforms where creation of videos using documents,excel sheets, PowerPoint slides, PDFs are done and making use of whiteboard in screen.

These are some of the popular platforms used by educators which provide a blend of tools apart from audio-visual such as creating videos using documents, excel sheets PDFs, PowerPoint slides, discussion forums for students, whiteboard features and make teaching and learning more interactive, multiple-choice quizzes with instant analysis like I pol and feedback**,** grading of assignments, exams.

In this study each intelligence is described as multiple components and do not suggest to teachers that each intelligence is to be isolated.The person with a strong intrapersonal intelligence enjoy working alone and are talented at reflecting on their experiences and feelings, and learning from these reflections and finds video lessons more comfortable and in online education (unlike a face-to-face classroom situation)they reflect individually about online discussions, to formulate written responses and to participate in their own time. Meanwhile Students with a high interpersonal intelligence enjoy working in groups and gain energy from the interaction with others and they make use of the possibilities of using live chat rooms, sharing experiences and group interactions more.Some individuals are blessed withthe linguistic intelligence and are sensitive to the meaning of language and words. These students excel in an online course, since the basic components include a lot of reading and writing. Some learners are strong in the logical-mathematical intelligence and are able to notice numerical or logical patterns and often connect new input with what they have already learnt. They can easily do ranking or analytical tasks. Some are Learners with a keen visual-spatial intelligence and willhave a three-dimensional relational sense, and are capable to think in pictures and see visual relationships. Illustrations, video clips, charts, tables-like visual inputs are really useful for them and they usually enjoy seeing photographs of fellow online participants. The activities like graphic tasks that require responses, such as making schemes or tables are enjoyed by them. Some show musical intelligence hence these learners with a good musical intelligence have a keen ability to perceive, appreciate and produce rhythm, pitch and music. The musically intelligent learners will appreciate video or audio input (perhaps of classroom situations or interviews) and tasks involving thinking about or using music, rhyme, or rap. Some excel with bodily kinaesthetic intelligence. Learners with a powerful bodily-kinaesthetic intelligence are skilled in sport so they will excel physically. For these learnersonline teachers can make use of activities in which they raise up from their seats and do the activity and come back.The person with strong naturalist intelligence is capable to organize and categorize the natural world. For them natural objects can be used as tasks which are available indoor itself.

III. CONCLUSION

The educational scenario is changing rapidly which invokes some inevitable changes usually. The educational technology is to be incorporated well especially in this Covid pandemic situation and for that the best approach is to use multiple intelligence theory in online teaching as apt educational technology for evoking learners and to refresh them from passive mode of online classrooms and from isolated feeling. The investigator found the study really significant especially during the period of lock down due to Covid 19 pandemic.

REFERENCES

[1] Aslam,S.,(2018).Spiritual intelligence and academic achievement of male and female secondary school students in Kashmir. *The Indian council of social science research (ICSSR). ISBN978-93-87793-22-4*
[2] Gardner, H., (1993). *Frames of mind: The theory of multiple intelligences*, New York: Basic books. The second edition was published in Britain by Fontana press.
[3] Gardner, H., (1999). *Intelligence Reframed. Multiple intelligence for 21st century*, New York, Basic books.
[4] Paul, G., and Nair, K.A., (2017). *Developing certain value based strategies for enhancing spiritual intelligence, social adjustment and self-efficacy among students at higher secondary level*. Unpublished doctoral dissertation, Mahatma Gandhi university, Kottayam.
[5] Halama,P.,andStrizenec,M.,(2004).Spiritual,Existentialorboth?Theoretical considerations on the nature of higher intelligences, *Studiapsychologica,* 46(3):239-253 ,Europe.

[6] Jaddou,E.A.A.,(2018).Existential intelligence among students at the world Islamic sciences university in Jordan. Academic Journals Educational Research and Reviews.Vol.13(13), pp534-542.

[7] Gagne, R. M. (2013). Instructional technology: foundations. Routledge

[8] Pearson, M.R., (2011). Multiple Intelligences and Therapeutic Alliance: Incorporating Multiple intelligence theory and Practice in counselling. *European Journal of Psychotherapy*,13(3)259-274.

[9] Saranya, V., and Sangeetha, S.,(2017). A study of intelligence in relation to achievement in science among secondary school students in Coimbatore educational district. *International Journal of Research Grandalayah*; Vol5(Iss.6): June 2017.

[10] Shahzada, G., (2013). Relationship between students' personality traits and their academic achievement in Khyber. *Educational journal Pakistan*: vol3.No .2

[11] Shankar,P.,(2016).Spiritual intelligence:Anoverview.*International journal of multidisciplinary research and development*.Online ISSN:2349-4182,Print ISSN:2349-5979,Vol.3,Issue3,March2016.

[12] Wigglesworth,C.,(2018).Spiritual intelligence research within human resource development: A thematic review. *Management research review* 41(8):987-1006.May2018.

[13] Zohar,D., and Marshall, I., (2000) *SQ: Connecting with our spiritual intelligence*. Bloomsbury, USA.

[14] Zohar,D.,(2012).*Spiritual intelligence: The ultimate intelligence.* Bloomsbury, USA (Kindle edition).