
Faculty in Digital Age Classroom: The Future

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ABSTRACT

In the context of Digital world, Digital Generation and Faculty in the Digital Age Classroom, this research aims at exploring the new definition for the role and pedagogy of Faculty in Digital Age Classroom. This Study also analysis the future of Faculty in Digital Age Context based on finding of empirical data and proposes the judicious use of tech tools in engaging, empowering, collaborating and socializing the teaching learning processes for the 21 century self - directed learners for seeking 21st century solutions.

Key Words: *Digital Age, Digital Classroom, Digital Generation, Digital Minds, Net Generation, Co-Creation, Technology Tools, Faculty, Education, Teaching, Information Technology, Advancement of Education, Application of ICT*

1. INTRODUCTION

Digital Age Classroomⁱ is new species of classroom in digital eraⁱⁱ. The technological intervention in academiaⁱⁱⁱ has changed the entire structure, system, processes and philosophy of Academic Delivery, Academic Pedagogy, Evaluation System, Faculty - Student Role & Interactions etc^{iv}. In this changed perspective^v a new term has been coined for Students which is Digital Natives; Digital Minds^{vi}; Millennials^{vii}, as today's students using self-directed approach, being from Digital Generation^{viii} can follow their own interest and can prepare themselves on their own in ubiquitous way. Hence a study to understand and appreciate the future of Faculty in digital age classroom is of utmost importance in the changed context. In view of this the problem statement for this research is find out new role and definition of Faculty^{ix} in Digital Context where a student can access information very easily and can learn on its own in a ubiquitous way as Digital Natives. In this backdrop the objective set for the present research is to understand how to redefine the future role of Faculty in Digital Age Classroom.

2. METHOD

The research study was conducted at a University in Rajasthan, India where integration of technology tool is one of the core principal of teaching-learning processes. The study was conducted on both Faculty and Students who rely heavily on technology for teaching-learning processes. The Sample comprises of 50% Faculty and 50% Students at undergraduate level.

3. FINDINGS

Based on analysis of data collected Figure 1 below suggests that the usage of technology tools as part of teaching learning process amongst Respondents range less than 50% usage by

29% respondents and more than 50% usage by 71% respondents if broadly categorized in these two categories. This data suggest that use of online resources and technology tools is part and parcel of respondents life.

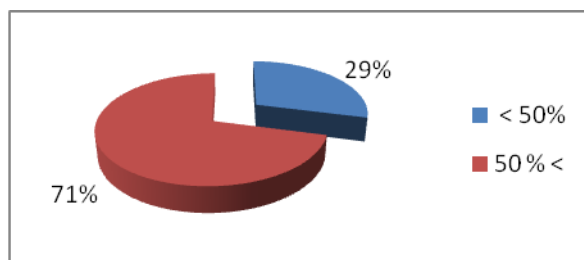


Fig.1. Technology Usage Integration in Teaching – Learning Process

Figure 2 below informs how respondents perceive usage of technology in classroom as a challenge or as an opportunity.

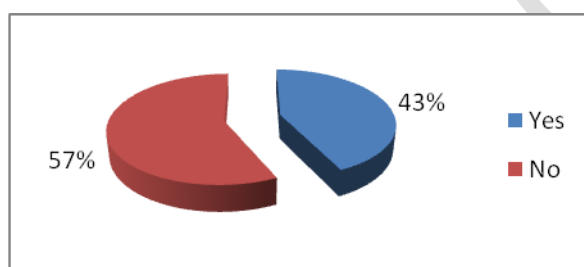


Fig.2. Technology Creates Challenges

43% of the respondents are of the opinion that Technology usage creates challenges in classroom. The challenges as pointed out were relating to technology learning, keeping oneself updated about technological developments, time investment in usage and application of technology before and inside the classroom, inadequacy of administrative and training support for blending technology tools in classroom, absence of technology oriented curative skills, fear from usage of technology, risk factor associated with technology, in case it does not work in required matrix due to technical failure than a proportion of class time get invested in getting the issue settled at own end or through administrative support. However the usage of technology creates opportunity in the classroom was informed by 57% of the respondents. Respondents cited that classroom delivery, exercises and activities becomes very enriching, exciting, engaging, collaborative, creative, interesting filled with fun elements if technology tools is effectively blended with pedagogy. Use of technology tools, videos, ted talks, open resources, animations, 3D modals, virtual simulation, virtual reality, virtual augmentation, virtual gaming exercises^x etc makes teaching learning processes very effective and result oriented. It was also pointed out that the retention capacity of learners increases multi fold due to use of technology tools in teaching-learning processes. Also it was pointed that handling large size classes and its evaluation along with declaring result on time is much easier to achieve with the use of technology. It was also pointed out that the discussions and deliberations in classroom due to technological usage remains focused in and around topic

under discussion key points and the class time is used effectively without deviating from the topic due to pointed key points which are part of Class presentations by Faculty who can cover more information in less time in Digital context.

So the distinction of opinion between challenges and opportunity gap is of 14% respondents. The challenges posed were majorly from Faculty as they make attempts on regular basis to learn technology integration for their classroom preparations being Digital Immigrants whereas students tilt of response was more towards opportunity as they are Digital Native born and brought up with technology in digital world strongly supplementing their digital minds since child hood. All in all, all the respondents were in favour that opportunity created by technology is more as compared to challenges. It was also pointed by respondents challenges are limited to initial learning inhibitions, hit and try methods and experiments. However once the usage of tool is applied with; multiplication, duplication, modification and mass sharing of creation and collaborative work becomes very easy, quick and prompt.

The other question asked to the Respondents were, are they coping pace with technology developments in teaching learning processes, to which responses are mentioned in Figure 3.

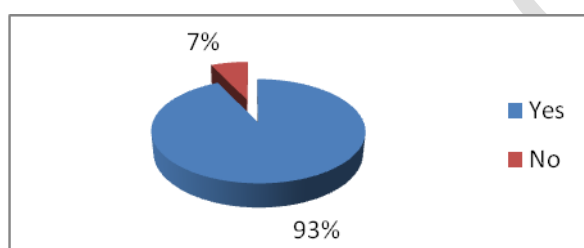


Fig.3. Coping Up With the Technology

Respondents were of the opinion that it's difficult to cope up with all the technological development. However for the purpose of their requirement wrt teaching – learning processes 97% of the respondents were of the opinion that they were copying up with technology developments and they take help of online resources in case they want to learn more about new technology tools usage and applications. Data suggests that technology tools as integrated in teaching learning processes by Respondents as of now is majorly limited to PPT's, Ted Talks, you tube videos etc. Respondents were inquired as part of research that since technology tools are enabling their teaching –learning processes with all flexibility ubiquitously at self -directed pace, hence in such a given situation does the requirement role of Faculty wrt future needs re-definition? Response to this question is given below in Figure 4.

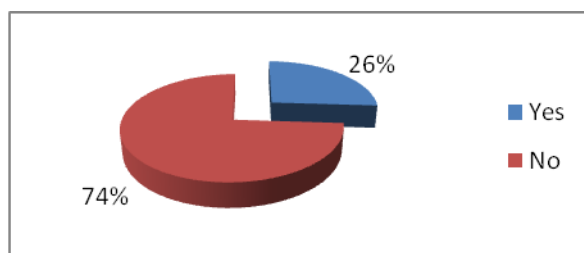


Fig.4. Faculty Role to be Re-Defined

74% of the respondents were of the opinion that Faculty is required in classroom even though all information is available online. Respondents were of the opinion that Technology tools and aids in teaching learning processes may be enabling, but the emotional humane touch of Faculty cannot be replaced with technology. Hence it was pointed out by them that faculty support as facilitator or as teacher is one of the prime requisite even though they may rely heavily on technology for their learning's. Hence Faculty Role in classroom was acknowledged as one the prime requirement in classroom even in digital context. However requirement of more effective integration of technology tool in pedagogy to make learning effective was pointed by Respondents.

Statistics suggests that 26% of the respondents were of the opinion that with the blend of artificial intelligence, virtual reality in tech based pedagogy and availability of open resources, MOOC etc the role of Faculty need re-definition in digital age classroom and that there are chances that in future technology may replace Faculty if they are not developing techno-philic attitude and nature to cater to the requirements of digital generation.

4. RESULTS AND DISCUSSION

Taking the context of Digital Age Classroom, it is incredibly important for educators to acknowledge the fact that students are way ahead of them in being able to function in the digital world being Digital Natives. If Faculty desires to connect with their students in digital context, then they must make a concerted effort to catch up to them in experiencing the digital world. The finding clearly indicates that Digital Age classroom will be survived by Digital Age Faculty only who will be well equipped with technology tools who can effectively handle well the learning requirements of Net Generation with effective blend of technology in pedagogy.

5. CONCLUSION

The solution as proposed wrt future role of Faculty in Digital Age Classroom is application of Co-Creation as teaching pedagogy using technology tools to convert challenges of Digital Age Classroom into opportunities by integration of Tech Tools in teaching which can facilitate better delivery of information and can enable transforming Digital classroom students as creative developer of information rather than passive consumers of information. Hence the future role of Faculty in Digital Classroom lies in creation of self - directed 21st century Learners through co-creation who are empowered with every Tech tool available and who can focus on relevant, significant problems to seek 21st century solutions

6. RECOMMENDATIONS

The findings of this research work suggests and recommends that to suit to the requirement of Digital classroom, Faculty is required to make an attempt to channelize the Digital Generations by thinking how to innovate pedagogy techniques, designs, formats, engagements and campaigns as part of curriculum by engaging in continuous communication with Digital minds co-creating experiential learning's with the blend of tech tools in teaching for co-creation with Students.

In view of the digital context the future role of Faculty is to act as Co-Creator for students in Digital Age classroom by blending judicious mix of 1. Tech Tools^{xi}, 2. Engaging and Empowering Tech Tools^{xii}, 3. Creation and collaborative Tech Tools^{xiii} and Social Learning & Networking Tech Tools^{xiv} in teaching. Faculty in newly defined role as Co-Creator need not be advanced technicians, as digital generation will cover that for them. The future of Faculty in Digital Age Classroom will be more as an advanced Managers/ Engineers/ Doctor/ Designers for their students talents, time and productivity via judicious integration of tech-tools in teaching learning processes as Co-creators.

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- ix Faculty means the person who facilitates the learning processes of learners in formal education system.
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- xi WebAccess, Laptops, Mobile Devices, Webquests, Blogs, Wikis etc
- xii Cloud Computing, Flipped Classroom, Khan Academy, Gaming, Wiffiti, Jing, Diigo etc
- xiii Glogs, Podcast, Scibd, Comic Life, Google Apps, Vokis, Avatars, Animation, Vlogs, Animoto etc
- xiv Facebook, Twitter etc