

OFFLINE VS ONLINE TEACHING: A FUTURE OUTLOOK

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Abstracts: Introduction: From ancient times to present modern times teaching techniques have evolved along with human technological revolution. Adapting to change is imperial for growth of human intelligence and knowledge. **Rise of Online Teaching:** With advent of Covid Pandemic, human society had to change they work and learn. Part of this was online education boom which was game changing for education industry. **Methods of Online Teaching:** YouTube videos, online platforms like Coursera, live video conferencing apps like Zoom, Live QnA, blogging etc are some of the ways students learn in variety of courses at once. **Online Teaching: The Good, The Bad and The Ugly:** The Good are: students can learn at their convenience, can learn at their own pace. The Bad are: more time consuming for teachers, students are having higher screen on time. The Ugly are: students are easily distracted; students are not disciplined and lack interaction with teachers. **Offline Teaching: The Good, The Bad and The Ugly:** The Good are: students are less distracted, more focused, can easily interact with teachers, better learning environment and practical can be done offline only. The Bad are: long continuous sessions, fixed schedules, expensive courses, can't do multiples courses at same time. The Ugly are: can't learn at your own pace. **Research Studies:** Most research shows that students prefer offline learning over online however they do consider online teaching to save time. **Future Ahead and Conclusion:** Both offline and online teaching are having its own advantages. Online teaching can act as initial primer and repeater of difficult topics while offline teaching will stay as mainline teaching system.

Key Words: Offline teaching, Online teaching, learning techniques, distant learning.

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Introduction:

In ancient times, gurus use to teach or preach their disciples in open to air environment while sitting under a tree. Thus, in those times students use to learn only by way of listening. Gradually, this was upgraded with use of chalk and black board. Teachers started teaching using both auditory and visual method of teaching. Students now can learn not only by listening but also observing what teacher writes or draw on black board. In modern times, this was further enhanced using PowerPoint technology. Using these tools now teachers can not only use audio visual apparatus but also can help students visualise difficult topics using animation videos. This made students understand even most difficult to learn topics as they now can easily visualise what is underlying principle of that topic. But this is going to change in future. Teacher and students will be virtually present in a virtual classroom and they would be taught topics in virtual worlds with realistic animations and visual effects. Students can now learn in the virtual environment which are as real as they can be. Use of metaverse, augmented reality and holographic

techniques will invariably change how we teach students in future.



Rise of Online Teaching:

We know that disasters at worldwide scale are always harmful for human existence on earth. Like world wars of past has caused more fatalities than any other disasters of past. But every pain brings some solace to earth in form benefactory after effects. Like Wristwatches, Pilates exercise, Cotton as sanitary pads, Jet engines, Radar, pressurized cabins, synthetic rubber and oil, all these

inventions or discoveries are direct result of world wars of past.

Same way covid pandemic did cause million fatalities and that's as hurtful as it gets. But it also gave birth to online teaching and work from home saving billions of fuels on earth and making air more breathable. Internet penetration from past decade made this even easier. Hardware availability like smartphones, tablets and laptops could certainly made possible to make online teaching more convenient. No doubt it did produce global chip shortage for a while. Lastly software availability like Zoom, Microsoft teams, Google meet etc. made use of all above conditions to make online teaching and work from home possible. So, all in all there was motive (Covid Pandemic), internet access, hardware access and software access all working together to make online teaching as new way of learning and education.

Methods of Online Teaching:

1. **YouTube Videos:** its cheapest and most popular way of learning. You can watch and learn millions of courses here without giving a single penny. However, these courses sometimes can be unprofessional and not reliable making this less significant for carrier purposes.
2. **Online Platforms like Coursera, NPTEL, Swayam:** these are more professionally driven platforms making sure that whatever is taught is authentic and helpful for carrier purposes. They also provide certificates at the end which can be utilised for getting job. However, many courses are paid one meaning you have to shell out few bucks to get certificate.
3. **Live QnA:** many platforms only provide live QnA sessions for teacher-student interaction. Concept is based on "Problem based Learning". Here students do self-study and their doubts are solved online by QnA sessions.
4. **Video Conferencing:** Using softwares like Zoom, Microsoft Teams, Google Meet etc teachers interact with students and take virtual attendance creating environment like offline teaching.

5. **Metaverse (Virtual Classrooms):** Here there are avatars of teacher and students in virtual classroom. Students are taught using 3d animations and hyper realistic field work. Such technologies are being developed by Facebook called as Meta.
6. **Blogging:** Here articles of related topics are published on microblogging sites like google blogger etc. Students read those articles and ask questions in comment section below. Teacher responds to those queries at their convenient time.
7. **Platforms with discussion threads:** There are multiple discussion thread sites like Quora, Reddit etc where curious students ask queries and those queries are answered by qualified persons and upvoted if answer is found to be authentic and reliable.
8. **Holographic Classrooms:** It is different from Metaverse. It has augmented reality instead of virtual reality. Here actual person is projected in 3d shape near a person and it feels like person is standing just next to you. Same way teacher can see holographic images of students as sitting next to him. These kinds of setups are more realistic and can only be possible with High bandwidth internet and sophisticated hardware for 3d projection.

Online Teaching- The Good, The Bad and The Ugly:

The Good:

1. **At convenience:** Students can watch lecture videos at their convenient time. Teacher can upload videos at their convenient time.
2. **Cheap:** As uploading videos is free in most platforms and watching videos with ads is also free, so it creates low entry barrier for students and teacher at same time to exchange knowledge at wider scale.
3. **Comfort of home:** Students and teachers can carry out education activities in their bedroom while lying down. It's that comfortable.

4. **Learning at your own pace:** Students can repeat difficult topics as much as they want and thus can learn at their own pace.
5. **Ask doubts any time:** Students can ask doubts anytime and get reply from teachers.
6. **Get access to World's Best Teachers:** Because of scale at which internet operates, students can get knowledge from best of the best teachers around the world.
7. **Feedback:** Teachers can get feedback far easily in online platform as many introvert students feel more comfortable asking questions online rather than face to face.
8. **Wider audience:** Teachers can reach to large group of students around the globe which was not possible in offline mode.
9. **Same topic with variety of perspectives:** Students can learn same topic from different teachers giving them a 360-degree view of a topic. This makes them understand a particular topic far more easily.
10. **Teachers have to upload only once:** Teachers work burden is reduced drastically as once video is uploaded, he/she can devote time for other topics and no need of repetition.
11. **Part time job:** Teachers can upload videos as part time job at their convenience without affecting their mainline job.
12. **One to one interaction:** For paid courses, students can get one to one interaction from teachers making learning far easier than other methods.
13. **No stage fear:** A newbie teacher will feel more comfortable in uploading online lectures than delivering on stage in front of larger audience. Not only that, he/she can edit parts which are either erroneous or contains irrelevant talks. However, some persons may be camera shy and would be more comfortable delivering lecture on stage than in front of camera.
14. **No formal education:** Some persons can start uploading educational videos totally based on their interest and love for the topic without any degree or certificate. Still students would be more interested in such

kind of videos as they will learn more from people who are interested in topic than from people who hold degree but lack passion for the same.

The Bad:

1. **More time consuming:** Preparing online lectures takes a lot of time and effort on teachers' side and that can be more difficult if teacher doesn't have technical knowhow of online teaching.
2. **Lack of student's interaction:** As lectures are delivered online, so reading students' reaction to teaching style becomes difficult even in live video conferencing. As a result, real time improvisation of teaching style is not possible.
3. **Hardware and internet access:** Students and teachers both should have high bandwidth internet connection with webcam and computer for delivering lectures online. This can act as entry barrier for some financially constrained students.
4. **Choppy internet and frequent power cuts:** Such situations will frustrate students and teachers alike. These situations on frequent basis can hinder students from learning online again.
5. **High screen time:** Online education makes health risk for both students and teachers regarding their eye strain and retinal damage caused by high screen time on daily basis.
6. **Software glitches:** If software used for online teaching is not stable and constantly hangs during live session, then students will get frustrated and stop learning all together.
7. **Lower income:** Teachers will get lower income from online classes compared to offline mode, making this source of income only for average teachers than world class teachers.
8. **Open criticism:** Teachers' teaching style will be open to all and may be criticised by students and colleagues openly which is good and bad at the same time as some teachers may get hurt and this can seriously dent their confidence for future

lectures. For e.g.: number of dislikes and hurtful comments can affect teachers' psyche adversely and may further deteriorate the situation.

The Ugly:

1. **Easy distraction:** Online teaching makes students distracted, as same device which is used for learning is also used for entertainment. So, student with just single click can change from learning to entertainment. This ease of switching is the MAIN CAUSE for distraction.
2. **Lack of discipline:** Due to lack of control from teacher's side in online teaching, students are more complacent in completing assignments given to them. They lack discipline which is always present in offline learning environment as college or school follows certain laws to make student attentive and disciplined regarding studies. In simple words, punishments are not possible in online teaching as a result students lack desire to complete assignments.
3. **Too comfortable learning environment:** Students are learning while lying on bed in online teaching. As a result, students are lacking learning atmosphere that is provided in classrooms and thus though students are present physically in online lectures they are not attentive during learning sessions. In simple words, too comfortable environment makes them sleepy during teaching sessions.
4. **No peer pressure:** Students in classrooms feel peer pressure when they see other students attending classes with full attention. This creates positive atmosphere in classroom and makes offline teaching far more effective than online.
5. **No improvisation:** In online teaching, teachers can't analyse students' mood and thus can't change their teaching style to make lecture more entertaining and interesting for students.

Offline Teaching- The Good, The Bad and The Ugly:

The Good:

1. **More productive:** Here teachers can force students to write notes about their lectures which is beneficial in long run for students.

2. **Increase Concentration of students:** As there are little to no distractions for students in classrooms, they tend to be more attentive in offline teaching.
3. **Learning environment:** Students in classroom have sitting posture and teachers make sure that students attend to their lecture rather than looking somewhere else. This strict environment has subtle role in enhancing learning in students.
4. **Greater teacher-student interaction:** Teacher in offline environment teach with more involvement and ask questions to students in between to break monotony of lecture and students also feel more involved and ask questions in between.
5. **Real time improvisation:** Teachers after accessing students' mood from face, improvise teaching style and make it more entertaining and interesting by asking funny questions and thus regain attention of students in this process. This is not possible in online teaching.
6. **Students are more disciplined:** School/College rules and regulations make student more disciplined and discipline in any branch will enhance performance of the participant. Same is the case here.
7. **Access grasping level:** Teacher can ask questions in between to access how much students have learned and students are forced to answer due to peer pressure. This is not strictly possible in online setup.
8. **Less distracted:** As most schools/colleges prohibit use of mobile during classrooms, students are more attentive during classes.
9. **Extracurricular activities:** Certain activities which can enhance students learning approach for e.g., some research studies, are not possible in online setup as guiding students online may not be possible always. Some sport events or cultural events are also not possible online. These events are required for general growth of student in our society.
10. **Practical Sessions:** All practical aspects of learning like laboratory work invariably requires offline teaching mode. This can't be done with demonstrations only.

The Bad:

1. **Travelling expenses:** Students and teachers both have to travel to school/college daily which can increase travelling expense.
2. **Fixed Schedules:** Students and teachers have to follow fixed curricular schedule and thus can't allot too much time in one topic and have to let go certain difficult topics due time constraints.
3. **Long continuous sessions:** Usually students have to attend classes straight for 3-4 hours which can hamper learning as most people loose attention just after 20mins of learning session. Last lectures are most boring for all students.
4. **Expensive Courses:** Fees are charged for getting degree or certificate from colleges or school. Usually, offline courses are more expensive than online due to involvement of expenses of land and infrastructure for education.
5. **Lectures can't be repeated:** Students can't ask teachers to repeat previous lectures if they find it difficult as there is time -constraints for completion of course.
6. **Too dependent:** Students can get too dependent on teacher for completion of assignment and thus may lack motivation for self-study when needed.
7. **Limited choices:** As there is high barrier for entry in offline mode, students can't approach for multiple degrees at the same time as he/she needs to be present physical in all classes.
8. **Difficulty in asking questions:** Some introvert students find difficult in asking questions face to face but are more comfortable asking online.

The Ugly:

1. **Can't learn at their own pace:** Students may feel certain topics to be difficult and want to repeat again but they can't ask teachers for the same due to time constraints.
2. **No revisions:** Revisions of topics not possible always in offline setup.
3. **Can't teach at world wide scale:** Highly qualified teachers can't teach students at worldwide level, as a result there is loss for

students to gain access for high quality teaching.

4. **Can't do job and course at the same time:** Financially weak students can't do job and course at the same time and thus have to take tough decision between livelihood and learning.
5. **Absent students are at loss:** If student is absent in class, he will not be able to learn that topic from teacher ever again and he will be at loss permanently.

Research Studies:

Dr. N. Vaanmalar¹, Assistant Professor Department of Corporatesectrayship, Erode Arts and Science College did pretest and posttest analysis of online vs offline teaching. His study concluded that there is no major difference in performance of students between online and offline teaching.

A study by Padmini Singh et al² involved 100 students from India, Malaysia and Indonesia comprising of bachelors, master and diploma degree holders. 48% agree that online teaching provides better benefits over offline teaching. Rest where either neutral or disagreed about benefits of online teaching. 52% agreed that online teaching saves time. 58% disagreed that online teaching will completely replace offline teaching. 61% agreed that there is more focus in offline teaching. 66% agreed that there is better interaction in offline teaching. Overall students prefer offline teaching over online.

A study by Dr Harish B Bapat et al³, used SERVQUAL technique of analysis for online vs offline teaching in management education. Offline teaching scored higher in tangibility, reliability, assurance, empathy and responsiveness parameters. Online teaching scored higher in cost and accessibility parameters.

Fiqhi Liesdistiana Damayanti⁴ et al concluded that 94% agree on effectiveness of offline teaching and 72% prefer offline over online teaching.

Jasmine Paul et al⁵ did study over period of 8 years (2009-16). In total 548 students (401 offline and 147 online) participated in the study. No significant difference was found in performance between online and offline teaching in topics of environmental science. Chi Square test was used to

compare grades of offline vs online students and p value obtained was 0.163 (>0.05).

A study conducted by Mahima Rohtagi et al⁶ included 351 students of higher secondary, under graduate and post graduate students. They used PLS SEM (Partial Least Square Structural Equation Modelling) technique analysis using SMART PLS2 software. 33.3% face communication barrier, 27.6% had content issue, 27.1% face issue of visualization, 78.3% faced internet connectivity issues, 56.1% were satisfied with online teaching, 27.4% were confused and 16.5% were not satisfied with online teaching.

Ms. Ulfat Amin et al⁷ conducted study at Kashmir which included 550 students of higher education using google forms for data collection. 38.2% considered offline better than online. 42.7% faced technical difficulties. It was concluded that offline learning provided more focus, less interrupted, more reliable and more interactive than online learning.

Dr. Debasis Biswas et al⁸ study concluded that there was no clear winner and both online as well as offline had its own fair share of advantages and disadvantages.

The Future Ahead:

It's clear that online teaching complements offline teaching. Online teaching can be used as initial primer where in students can watch videos of the topic that is going to be taught next day. This will make students ready to grasp at greater depth during offline teaching. Online teaching can also be used by students who wants to understand difficult topic again and thus give student benefit of learning at his own pace.

Conclusion: To conclude, it is wrong to see online teaching as competitor of offline teaching. It's like competing batsmen of same team against each other and creating unhealthy environment. Every batsman has its own style and can contribute to team success. Same way every teaching technique has its benefits and risks associated with it. By supporting one system and totally avoiding other can be detrimental to students' growth. Both will be beneficial to students as a whole and neither can replace another completely.

Disclaimer:

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