

Role of NPTEL in Developing Learner Autonomy in College Students - A Contextual Study

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Background of the Study: Learner Autonomy

Digital Age widely referred to as Information Age allows every individual to explore knowledge and develop learning in a connected society (Castells 150). In the field of lifelong learning, Learner Autonomy plays a pivotal role in motivating the learners to acquire knowledge (Smith 395).

Henri Holec is considered to be the father of Learner Autonomy. He coined the term in 1981 and defined it as the capacity to take control of one's own leaning in a different situations and contexts (Meenakshi 935). According to Littlewood (1996), autonomy contained two key components: learners' ability and their willingness to make choices independently (qtd. Hu & Zhang 148). Ushioda (1996) considered the potential for developing effective motivational thinking as an integral part of Learner Autonomy. This has gained great popularity by taking a shift from teacher-centered instruction to learner-centered instruction (Hayta and Yaprak 57).

Technology as a Facilitator to Learner Autonomy

Whether the learner is at the age of five or ninety-five, the internet has a lot to offer. Computers and the Internet provide a wealth of resources to independent learners. The world of higher education has seen a massive shift over the past few years towards the realm of online education (Healey 3). As teachers and instructors become more familiar and confident with online learning and new technologies, there will be more innovative methods developing all the time (*BCcampus*).

Technology tools such as audio-lingual materials, streaming video platforms, web-conferencing, online chat environments, and discussion forums make learning possible to have a real time communication and active interaction by accommodating a wider range of learners even if separated geographically. In that way, MOOCs (Massive Open Online Courses) provide an affordable and flexible way to learn new skills, advance the career and deliver quality educational experiences at scale. MOOC is the acronym for Massive Open Online Courses which aimed at large-scale participation and open (free) access via the internet (*UAB*).

Some of the most prominent and popular MOOC courses such as *Coursera*, *Khan Academy*, *Open Culture*, *Udemy*, *Udacity*, *Academic Earth*, *edX*, *Futurelearn* provides people with guaranteed access to cutting-edge education by virtue of its tie-ups with leading global universities and

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organisations, in order to provide quality education from India and abroad (Nagrle 2018). Moreover, the best of all high-quality sites is completely free and available with certification after the completion of course. But the certificates often require a fee, even if the course is free (*Edukatico*).

Major MOOC platforms under Indian Scenario

In recent years, the enrolment in Massive Open Online Course (MOOC) has increased tremendously. India is in fact second largest user country of MOOCs, next to the US (Chakravarty 14). Seeing the growth of enrollment from the country and to satisfy the need of education, India has started various projects for offering MOOC courses. Currently, *NPTEL*, *mooKIT*, *IITBX*, and *SWAYAM* are the platforms used in India for offering courses (Chauhan 111).

NPTEL

NPTEL stands for National Programme on Technology Enhanced Learning. It is a project funded by Ministry of Human Resource Development (MHRD) of India, initiated in 2003. This is a joint initiative by the Indian Institute of Science (IISc) and the Seven Indian Institute of Technology (IITs) to offer course contents on Engineering and Science, initially. Now this project provides e-learning through the internet and video course in different fields like Humanities, Management, Technology, Science and Engineering. It offers free course with nominal fees for certification (Chauhan 112).

Some significant details about NPTEL projects are:

- It has a curriculum framework designed by subject experts from IISc and IITs
- Each course offered for free under this project comprises of nearly 40-60 pre-recorded video lectures that extend for about one-hour duration.
- Evaluation done based on online assignments with due dates and computer-based tests.
- An internet-based discussion forum is also incorporated for enabling students to post comments and for reviewing questions.
- Workshops are regularly conducted for mentors, students and for institutes.
- They have a Local Chapter to encourage more students across colleges to participate in NPTEL initiative (Nagrle 2018).

CTTE College for Women as one of the NPTEL Local Chapters

Chevalier T. Thomas Elizabeth College for Women which is located at Perambur, Chennai 11, started a NPTEL Local Chapter in April 2018. Students from this college are actively engaged in doing online NPTEL courses hosted by Professors from IITs and IISc. This college has been rewarded as the ‘Best New Local Chapter outside top 100’ and recognised as an Active Local Chapter in Jul-Oct 2018.

During the term July-October 2018, nearly 800 students including the faculty members enrolled in NPTEL courses in different streams. Among them, 243 registered for the NPTEL exams

and 195 were certified. Their achievements include 10 Topper with Gold, 79 Elite, and 113 Successfully Completed certificates.

Need for the Study

NPTEL becomes an essential programme that provides e-learning through online video courses in various streams. It is important to examine whether NPTEL serves its purpose in developing Learner Autonomy in college students.

Statement of Problem

NPTEL courses are hosted by the Professors from IISc and IITs. The courses are highly informative, and the students gain in-depth knowledge in their areas of specialisation. The uploaded videos and lecture notes are monotonous and too long, and the students find it difficult to learn without the support of the Mentor.

Hypothesis of the Study

- NPTEL courses promote Learner Autonomy in college students at UG and PG Level.

Location of the Study

- The location of the study is Chevalier T. Thomas Elizabeth (CTTE) College for Women, Perambur, Chennai.

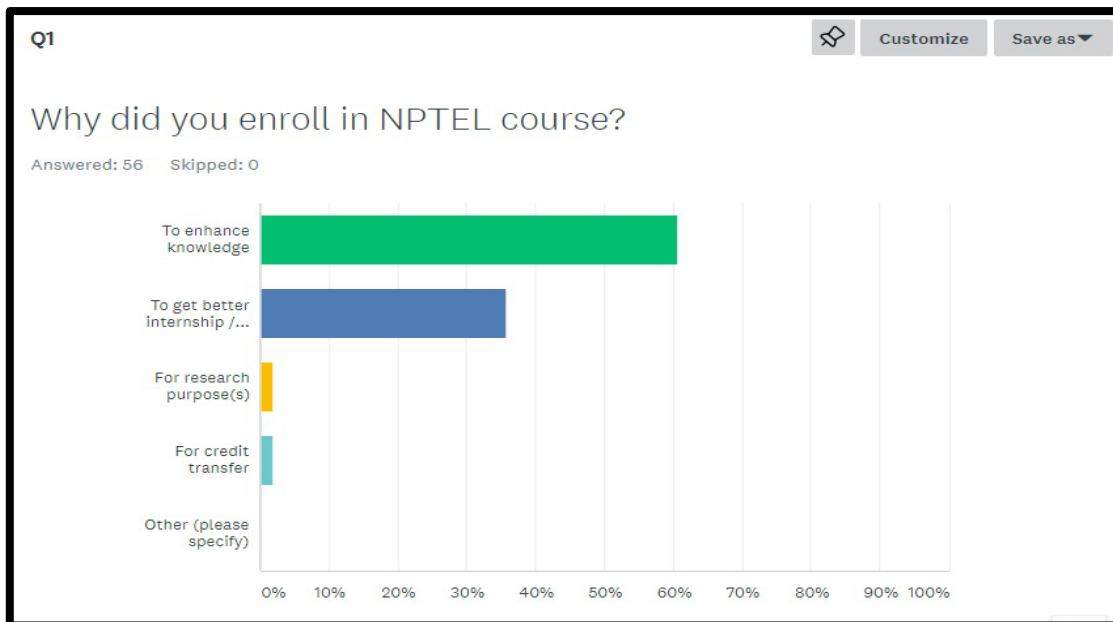
Samples of the Study

- The samples of the study are the NPTEL exam participants from Chevalier T. Thomas Elizabeth (CTTE) College for Women, Perambur, Chennai.

Research Tool

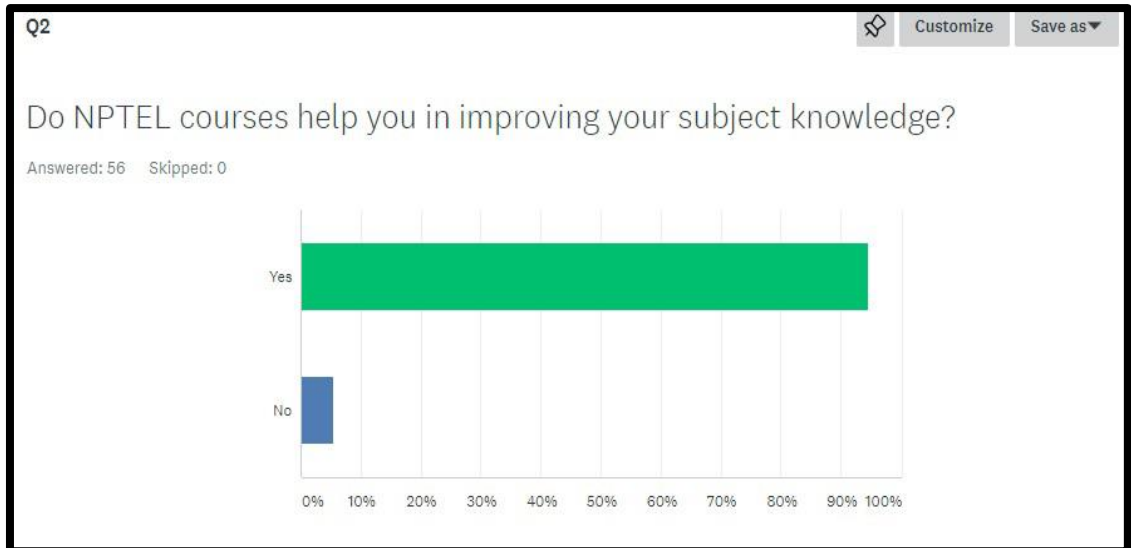
- A feedback questionnaire with 10 multiple-choice questions is designed using *Survey Monkey*.

Data Analysis and Interpretation



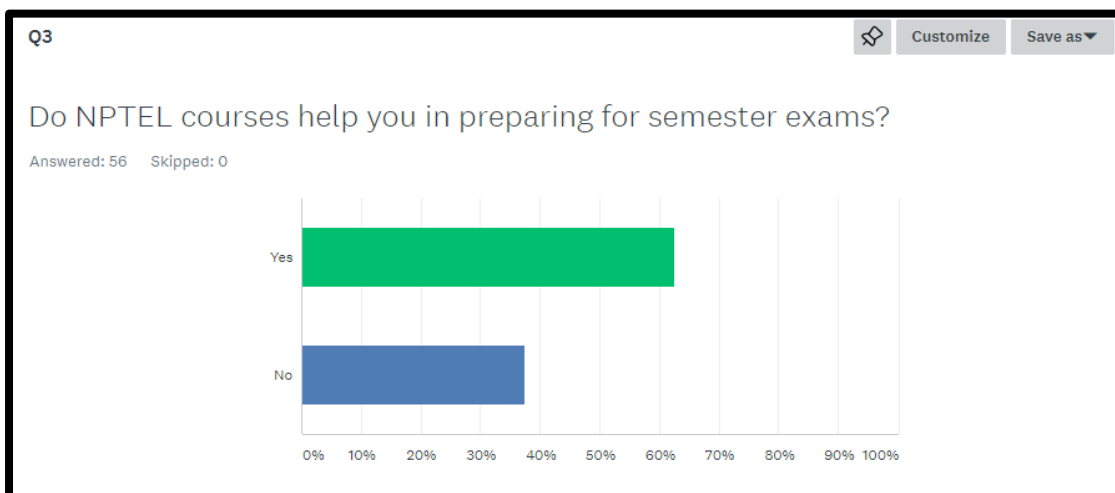
ANSWER CHOICES	RESPONSES
▼ To enhance knowledge	60.71% 34
▼ To get better internship / job	35.71% 20
▼ For research purpose(s)	1.79% 1
▼ For credit transfer	1.79% 1
▼ Other (please specify) Responses	0.00% 0
TOTAL	56

- Out of 56 students, 34 students (61%) remark that NPTEL course helps them enhance knowledge.
- 20 students (35%) believe that NPTEL course will help them get better internship or job.
- 1 student (2%) remarks that NPTEL course is useful for research purpose.
- 1 student (2%) remarks that NPTEL course is useful for credit transfer.



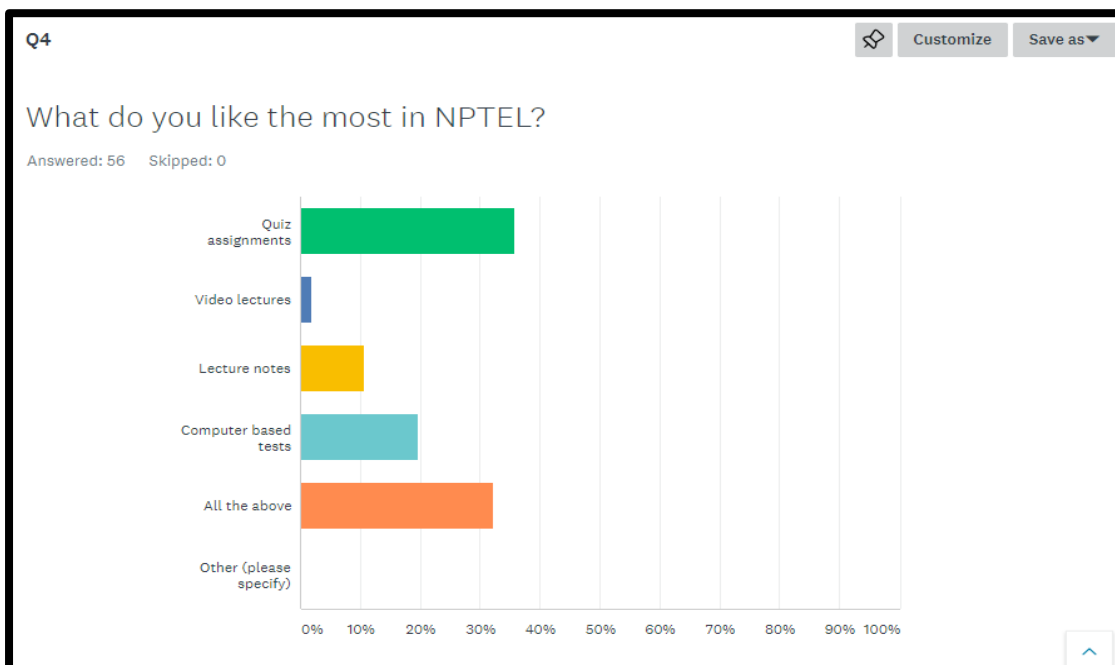
ANSWER CHOICES	RESPONSES
Yes	94.64% 53
No	5.36% 3
TOTAL	56

- Out of 56 students, 53 students (95%) remark that NPTEL courses help them improve their subject knowledge.
- 3 students (5%) remark that NPTEL courses do not help them in improving their subject knowledge.



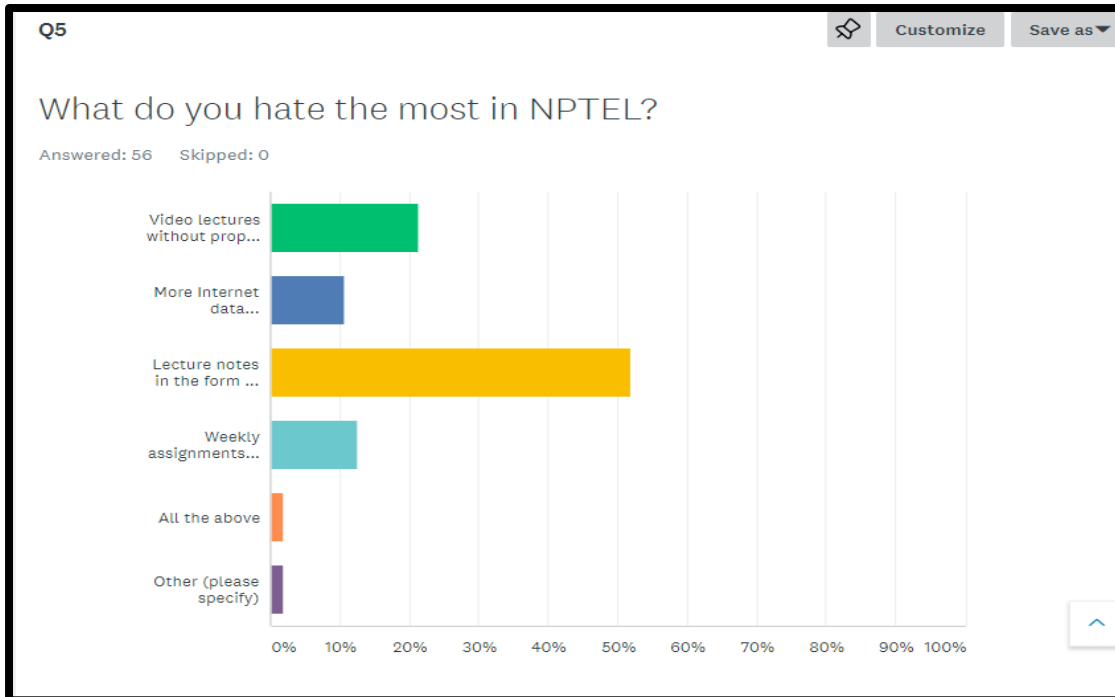
ANSWER CHOICES	RESPONSES
Yes	62.50% 35
No	37.50% 21
TOTAL	56

- Out of 56 students, 35 students (63%) remark that NPTEL courses help them in preparing for semester exams.
- 21 students (37%) remark that NPTEL courses do not help them in preparing for semester exams.



ANSWER CHOICES	RESPONSES
Quiz assignments	35.71% 20
Video lectures	1.79% 1
Lecture notes	10.71% 6
Computer based tests	19.64% 11
All the above	32.14% 18
Other (please specify)	Responses 0.00% 0
TOTAL	56

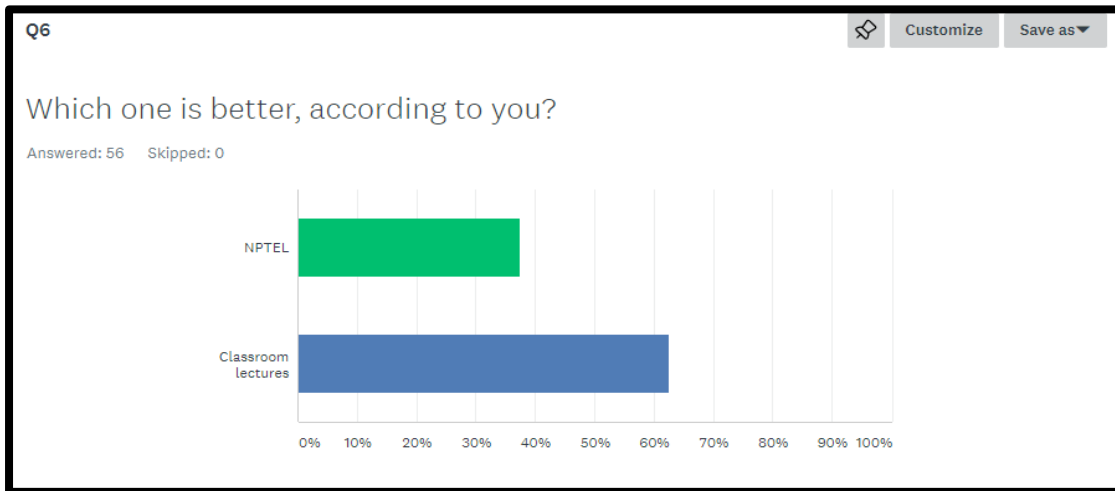
- Out of 56 students, 20 students (36%) like Quiz assignments in NPTEL.
- 1 student (2%) likes Video lectures in NPTEL.
- 6 students (11%) like Lecture notes in NPTEL.
- 11 students (19%) like Computer-based tests in NPTEL.
- 18 students (32%) like Quiz assignments, Video lectures and Computer-based tests in NPTEL.



ANSWER CHOICES	RESPONSES
Video lectures without proper examples / representations	21.43% 12
More Internet data consumption while watching the video lectures	10.71% 6
Lecture notes in the form of long speeches	51.79% 29
Weekly assignments with due dates	12.50% 7
All the above	1.79% 1
Other (please specify)	Responses 1.79% 1
TOTAL	56

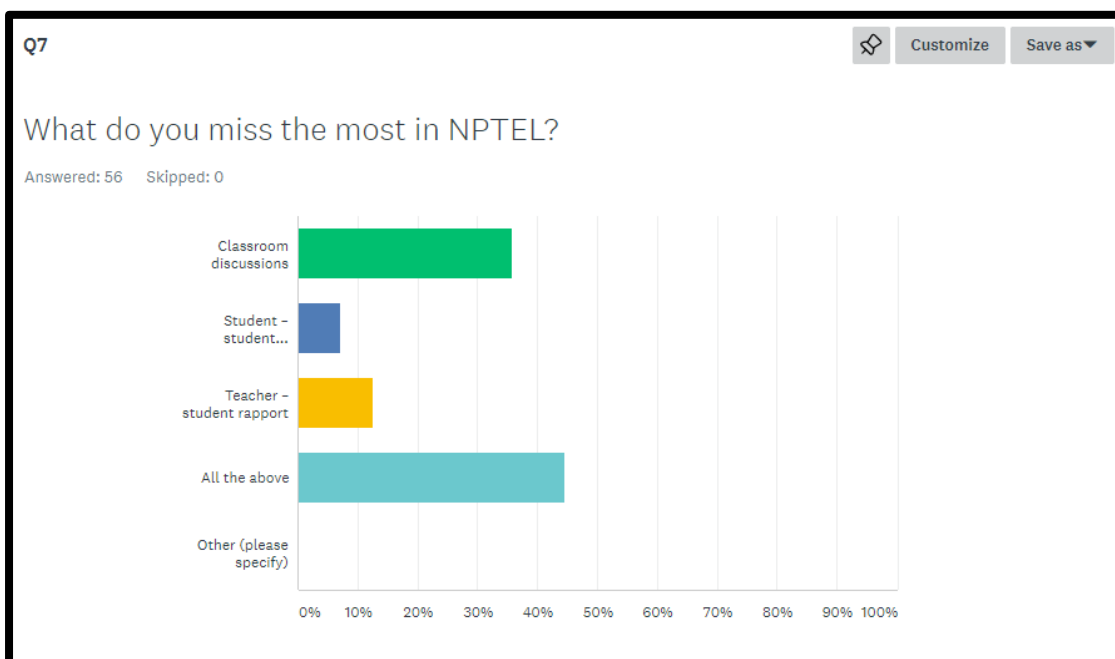
- Out of 56 students, 12 students (21%) hate Video lectures without proper examples / representations in NPTEL.
- 6 students (10%) hate more Internet data consumption while watching video lectures in NPTEL.
- 29 students (51%) hate Lecture notes in the form of long speeches.
- 7 students (12%) hate weekly assignments with due dates.

- 1 student (2%) hates Video lectures, more Internet data consumption, Lecture notes, and weekly assignments in NPTEL.
- 1 student (2%) states that NPTEL exam fees is very high.



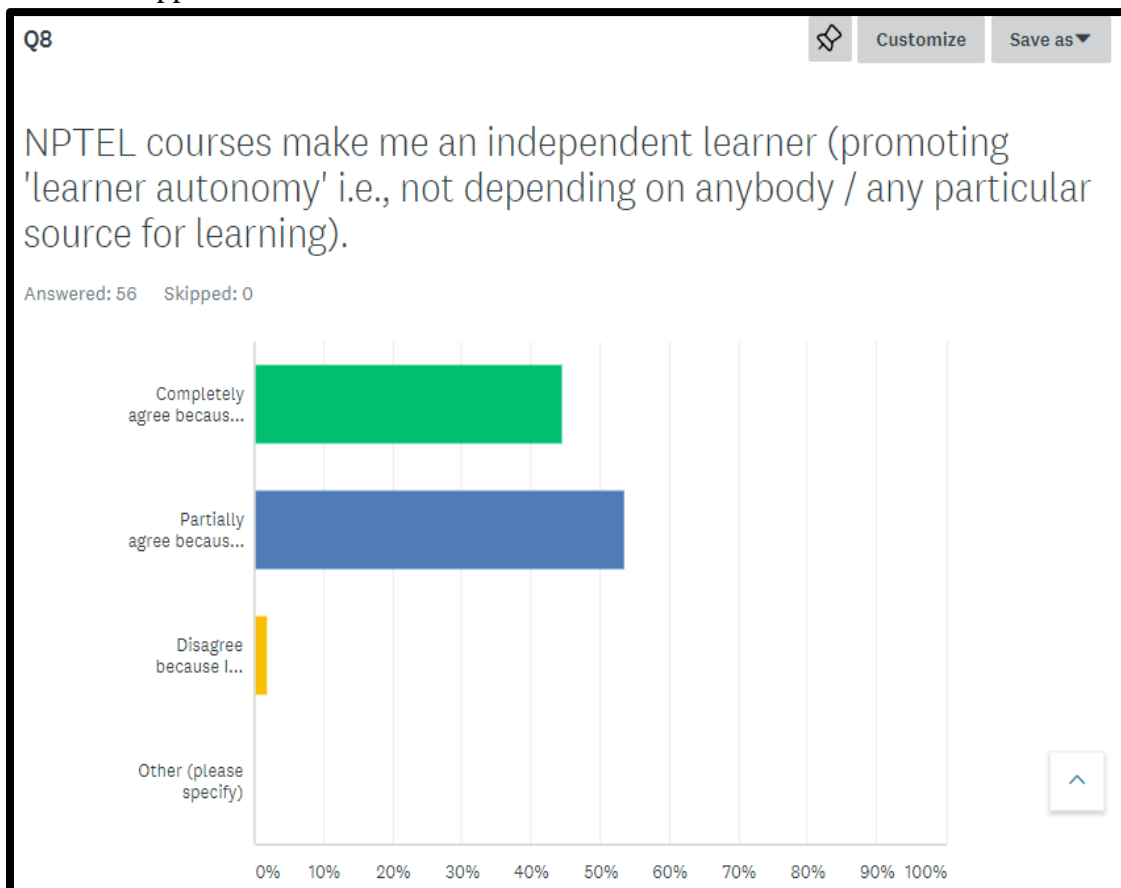
ANSWER CHOICES	RESPONSES
NPTEL	37.50% 21
Classroom lectures	62.50% 35
TOTAL	56

- Out of 56 students, 35 students (63%) remark that classroom lectures are better.
- 21 students (37%) remark that NPTEL courses are better.



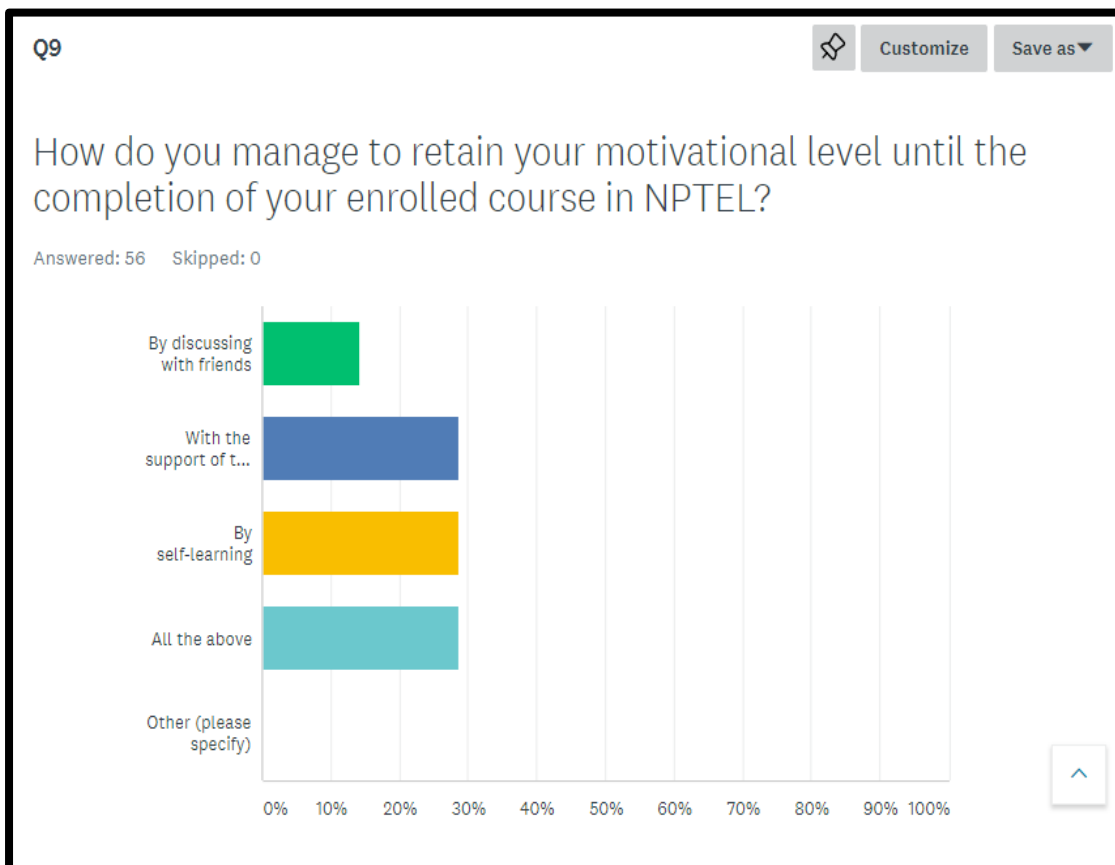
ANSWER CHOICES	RESPONSES	
Classroom discussions	35.71%	20
Student - student interaction	7.14%	4
Teacher - student rapport	12.50%	7
All the above	44.64%	25
Other (please specify)	Responses 0.00%	0
TOTAL		56

- Out of 56 students, 20 students (36%) miss Classroom Discussions in NPTEL.
- 4 students (7%) miss Student - Student interaction in NPTEL.
- 7 students (12%) miss Teacher - Student rapport in NPTEL.
- 25 students (45%) miss Classroom Discussions, Student - Student Interaction, and Teacher - Student rapport in NPTEL.



ANSWER CHOICES	RESPONSES
Completely agree because I didn't rely on anybody (mentor or friends) for studying	44.64% 25
Partially agree because I got help from the mentor and friends while studying	53.57% 30
Disagree because I couldn't study on my own and got support from my mentor and friends.	1.79% 1
Other (please specify) Responses	0.00% 0
TOTAL	56

- Out of 56 students, 25 students (45%) completely agree that NPTEL course has made them independent learners as they do not rely on anybody (mentor or friends) for studying.
- 30 students (53%) partially agree that NPTEL course has made them independent learners as they got help from mentor and friends while studying.
- 1 student (2%) disagrees to the statement as she could not study on her own and got support from mentor and friends.



ANSWER CHOICES	RESPONSES
By discussing with friends	14.29% 8
With the support of the mentor	28.57% 16
By self-learning	28.57% 16
All the above	28.57% 16
Other (please specify) Responses	0.00% 0
TOTAL	56

- Out of 56 students, 8 students (14%) manage to retain their motivational level throughout the course by discussing with friends.
- 16 students (28%) manage to retain their motivational level with the support of the mentor.
- 16 students (29%) have retained their motivational level by self-learning.
- 16 students (29%) have retained their motivational level with the support of mentor, friends, and self-learning.

Q10 Save as ▾

Will you enroll in NPTEL courses and attend the exams in the forthcoming semesters too? If yes or no, state the reason.

Answered: 56 Skipped: 0

ANSWER CHOICES	RESPONSES
Yes, because Responses	85.71% 48
No, because Responses	14.29% 8

- Out of 56 students, 48 students (86%) will enroll in NPTEL courses and attend the exams in the forthcoming semesters too.
- 8 students (14%) are not interested in enrolling in NPTEL courses in the forthcoming semesters.

Showing 48 responses

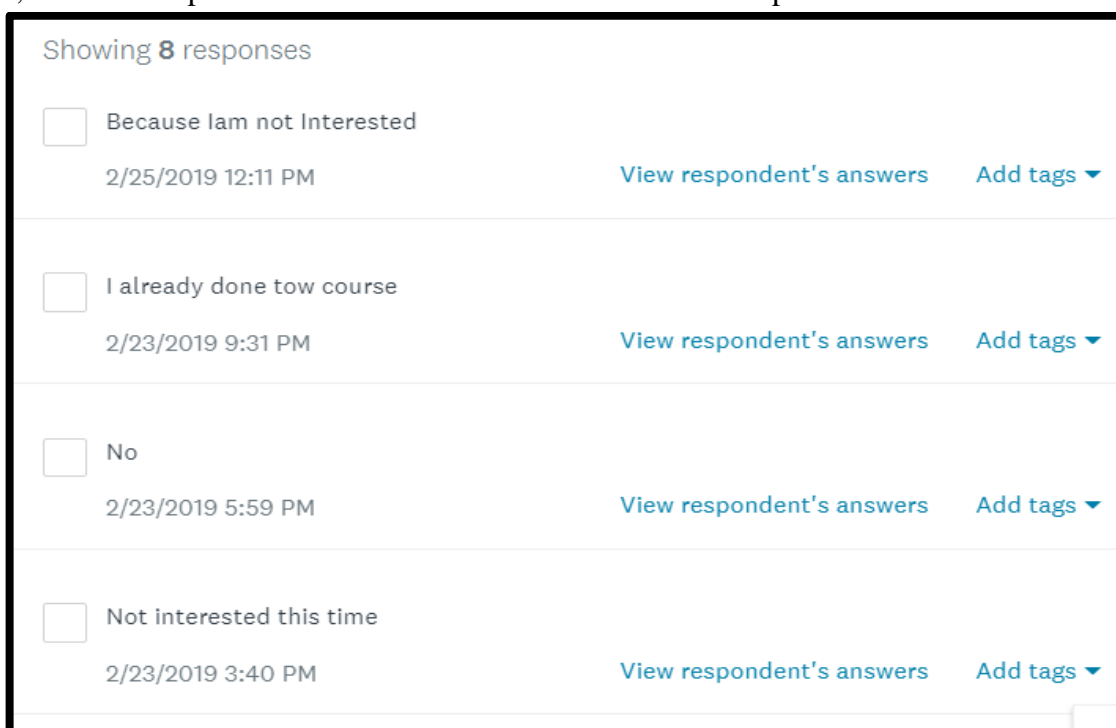
<input type="checkbox"/>	I enhance my knowledge	2/25/2019 10:33 AM	View respondent's answers	Add tags ▼
<input type="checkbox"/>	it's very interesting	2/25/2019 9:56 AM	View respondent's answers	Add tags ▼
<input type="checkbox"/>	it helps me to improve my knowledge	2/25/2019 9:54 AM	View respondent's answers	Add tags ▼
<input type="checkbox"/>	It helps gain knowledge	2/25/2019 7:38 AM	View respondent's answers	Add tags ▼
<input type="checkbox"/>	Yes because it's useful for completing the course level			

Showing 48 responses

<input type="checkbox"/>	It's a whole new experience and moreover it is different from the traditional way of learning	2/24/2019 6:29 AM	View respondent's answers	Add tags ▼
<input type="checkbox"/>	It, enhance us personally	2/23/2019 10:33 PM	View respondent's answers	Add tags ▼
<input type="checkbox"/>	it is helpful	2/23/2019 9:30 PM	View respondent's answers	Add tags ▼
<input type="checkbox"/>	I like to gain knowledge with writing the exam	2/23/2019 9:21 PM	View respondent's answers	Add tags ▼

Some of the positive responses about NPTEL are:

- NPTEL helps to enhance my knowledge.
- It's very interesting and useful for future.
- It's a whole new experience, and moreover, it is different from the traditional way of learning.
- It'll be an added advantage while I go for a job.
- It stimulates the inquisitiveness in learning new subjects.
- Yes, because NPTEL offers nationalised certificates after clearing the exams.
- The courses are very informative and helpful.
- It develops self-learning, and the NPTEL certificates would increase the credits to get a good job.
- It helps to get exposure towards many literary works, theories, and approaches.
- Yes, because the previous exam boosted me to become an independent learner.



Reasons for why a few students do not want to take up NPTEL exam again because:

- Already completed 2 NPTEL courses
- Exam registration fees is high.
- Exam centre is too far away from the college.
- NPTEL exams are quite tough for a few students.

Key Findings

- NPTEL courses help the students enhance their subject knowledge and help them in preparing for their semester exams. They might also help them in getting better internship or job.
- Most students prefer quiz assignments and computer-based tests in NPTEL.
- Most of them hate long videos and lecture notes in the form of long speeches in NPTEL.

- Though the students prefer NPTEL courses for knowledge development, they miss the Classroom discussions, Student - Student interaction, and Teacher - Student rapport in NPTEL.
- Some students prefer self-study while many seek help from mentors and friends during exam preparation.
- Most of the students could retain their motivational level throughout the course with the help of their mentor and friends.
- Many students are interested in taking up NPTEL courses in the forthcoming semesters too.
- NPTEL courses (with the support of mentors and friends) promote Learner Autonomy and Life-long Learning in college students.

Recommendations

- NPTEL video lectures and lecture notes can be enhanced using lots of real-life examples and illustrations.
- Exam fees can be reduced so that the students find it easy to take up NPTEL exams every semester.

Limitations of the Study

- Samples are chosen from only one college.
- The sample size is limited to 56 students only.

Scope for Further Research

- This research can be extended to find whether the students from other colleges in North Chennai are aware of NPTEL courses.
- Evaluative studies can be done to find whether NPTEL courses help the students in improving their university exam scores.
- Longitudinal studies can be conducted to find whether NPTEL courses help the students in cracking competitive exams or getting better internship / jobs.

ANNEXURE

SURVEY QUESTIONNAIRE

1. Why did you enroll in NPTEL course?
 - a) To enhance knowledge
 - b) To get better internship / job
 - c) For research purpose(s)
 - d) For credit transfer
 - e) Other (Please specify) _____

2. Do NPTEL courses help you in improving your subject knowledge?
 - a) Yes

- b) No
3. Do NPTEL courses help you in preparing for semester exams?
- a) Yes
 - b) No
4. What do you like the most in NPTEL?
- a) Quiz assignments
 - b) Video lectures
 - c) Lecture notes
 - d) Computer based tests
 - e) All the above
 - f) Other (Please specify) _____
5. What do you hate the most in NPTEL?
- a) Video lectures without proper examples / representations
 - b) More Internet data consumption while watching the video lectures
 - c) Lecture notes in the form of long speeches
 - d) Weekly assignments with due dates
 - e) All the above
 - f) Other (Please specify) _____
6. Which one is better, according to you?
- a) NPTEL
 - b) Classroom lectures
7. What do you miss the most in NPTEL?
- a) Classroom discussions
 - b) Student - student interaction
 - c) Teacher - student rapport
 - d) All the above
 - e) Other (Please specify) _____
8. NPTEL courses make me an independent learner (promoting learner autonomy i.e., not depending on anybody / any particular source for learning).
- a) Completely agree because I didn't rely on anybody (mentor or friends) for studying
 - b) Partially agree because I got help from the mentor and friends while studying
 - c) Disagree because I couldn't study on my own and got support from my mentor and friends
 - d) Other (Please specify) _____

9. How do you manage to retain your motivational level until the completion of your enrolled course in NPTEL?
- By discussing with friends
 - With the support of the mentor
 - By self-learning
 - All the above
 - Other (Please specify) _____
10. Will you enroll in NPTEL courses and attend the exams in the forthcoming semesters too?
If yes or no, state the reason.
- Yes, because _____
 - No, because _____

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