

Pan-IIT Faculty Survey on Online Education



The pan-IIT effort (all the 23 IITs) is being coordinated by IIT Dharwad on voluntary basis

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Survey among faculty is one of the activities of the group and has been steered by IIT Dharwad and IIT Jammu teams.

MAY 2020

S	M	T	W	T	F	S
26	27	28	29	30	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

The survey data was collected from 5th May 2020 to 25th May 2020

The total number of responses collected: 840

(70% being Asst/Assoc Profs)



~75% respondents had NO PRIOR experience of online education



~65% had <50 students in their course
(Mostly NO LAB component in course)



Only 6% complained of low internet speed

Basic Information

Content preparation: We are IIT, we do it by ourselves !



Available videos such as NPTEL and OCW are NOT popular (only 20%)



~70% said online classes take more preparation time but only 36% cited it as a deterrent / disadvantage;



~50% want to improve live interaction next time around



~70% respondents said online classes held for >3 weeks
@ 3hrs per week or less



~60% want it flexi : rescheduled class hours



Majority did both synchronous and asynchronous modes



~55% shared material over email; ~30% over Moodle



43% DID NOT emulate black/white board; only 25%
used tablet/laptop touch screen

Content Delivery

Assessment



46% DID NOT conduct any assessment



~60% prefer assessment through quiz, assignment, projects



ONLY 28% respondents voted for emulating regular exams with proctoring

Challenges



ONLY 18% strongly feel online education can become future of education;
PREFERRED strategy is to go with some courses with some online component.



Major Advantages - ANY TIME, ANY PLACE, SELF PACED Learning



Major Disadvantages – lack of interaction;
inability to see non-verbal cues in class.

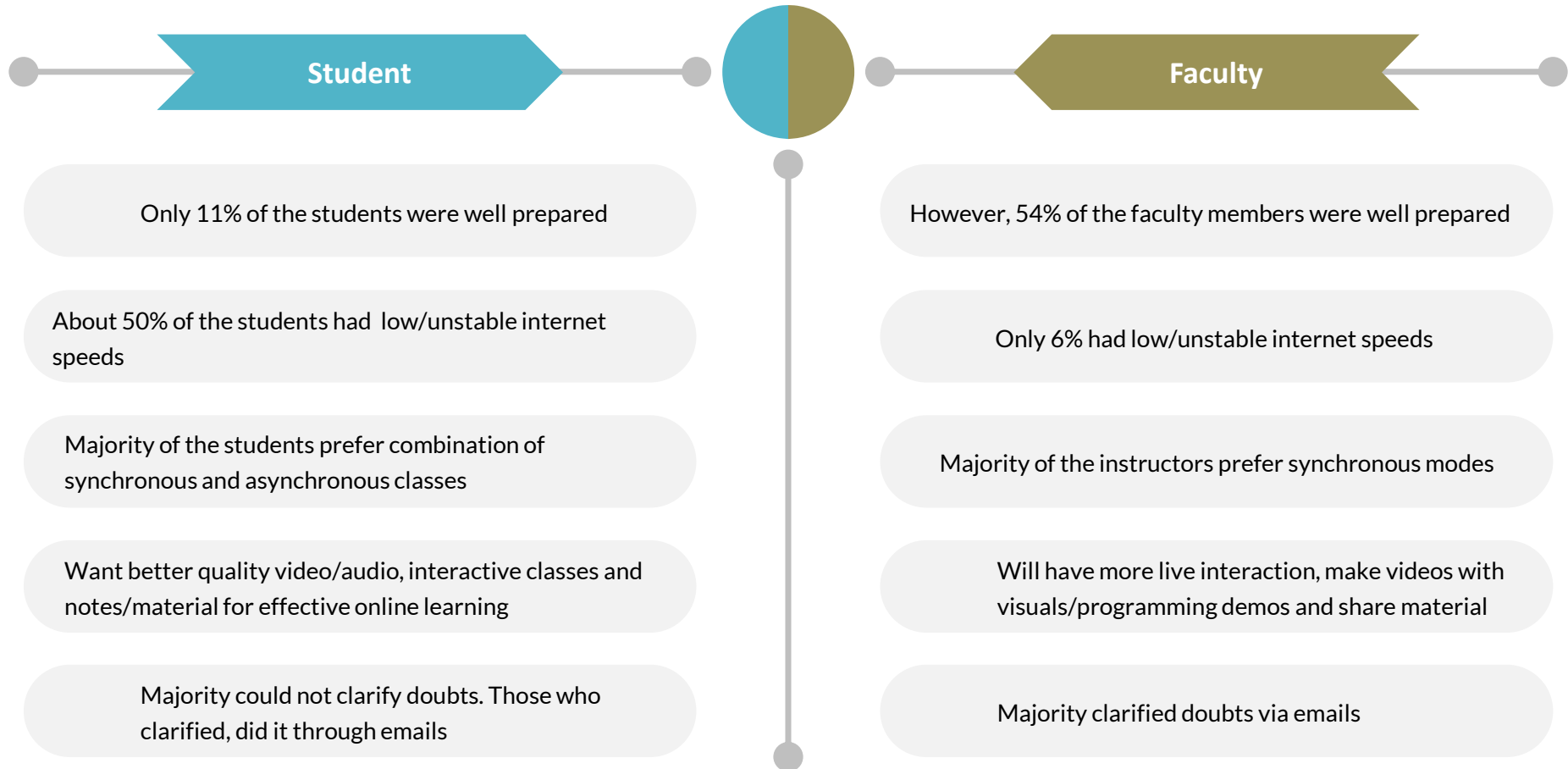


ONLY 4% said TAs had MORE role in online

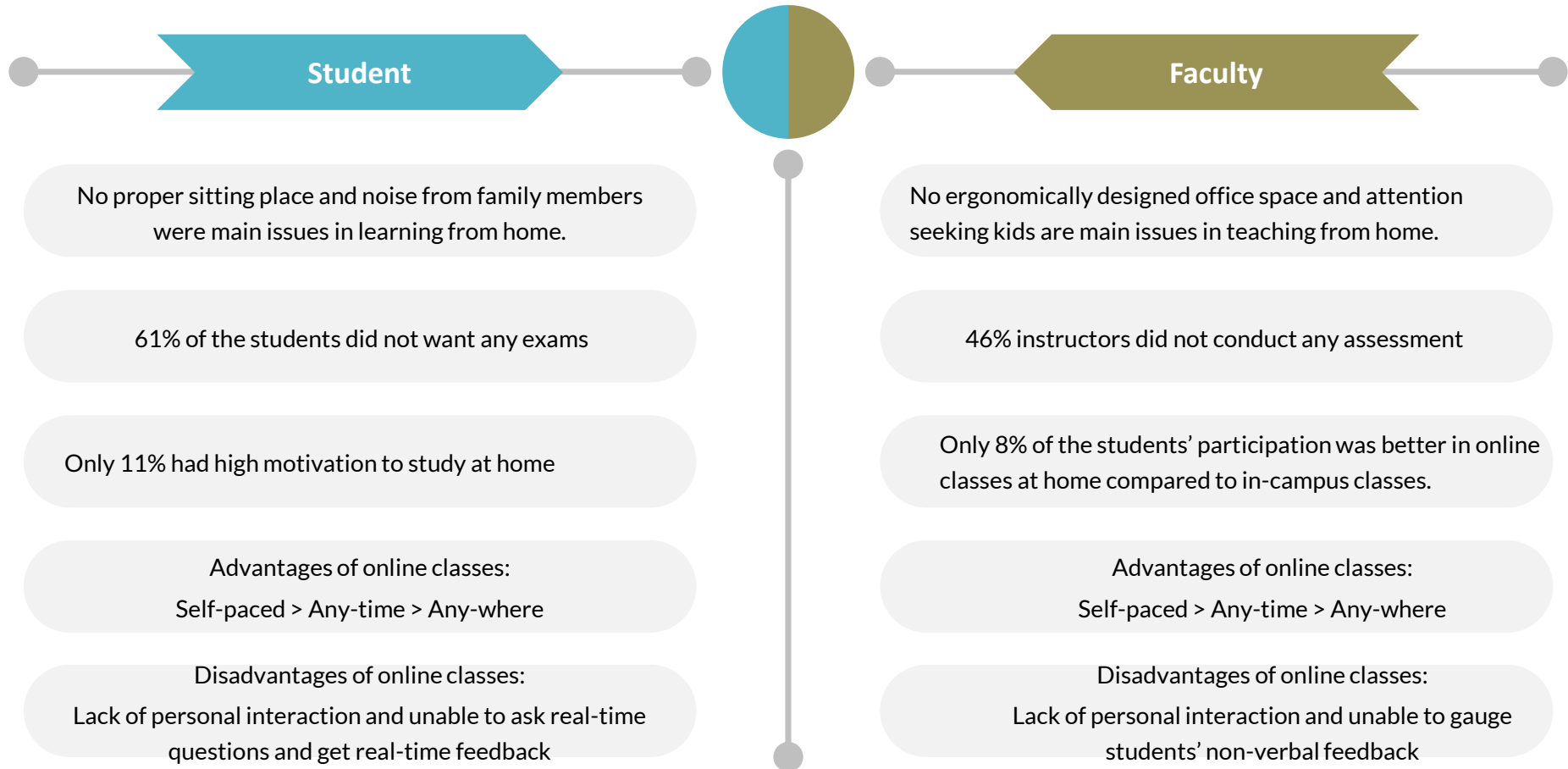


~50% still prefer only synchronous mode of delivery
(i.e., live classes)

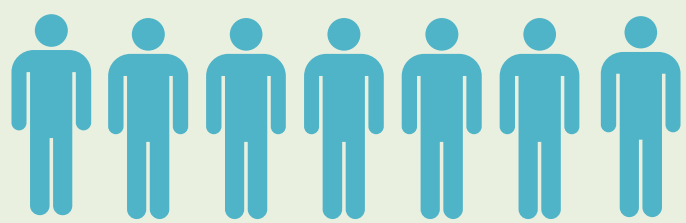
Student v/s Faculty Responses



Student v/s Faculty Responses

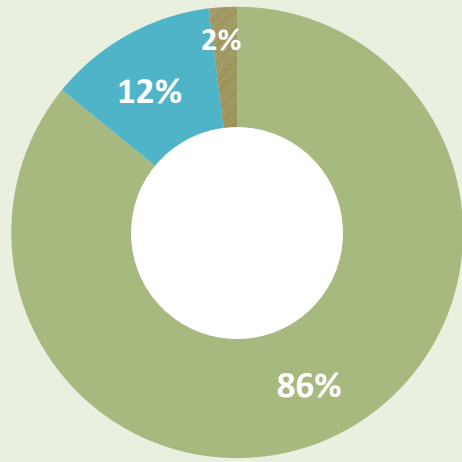


DEMOGRAPHICS



Males

About 86% of the respondents are males



Females

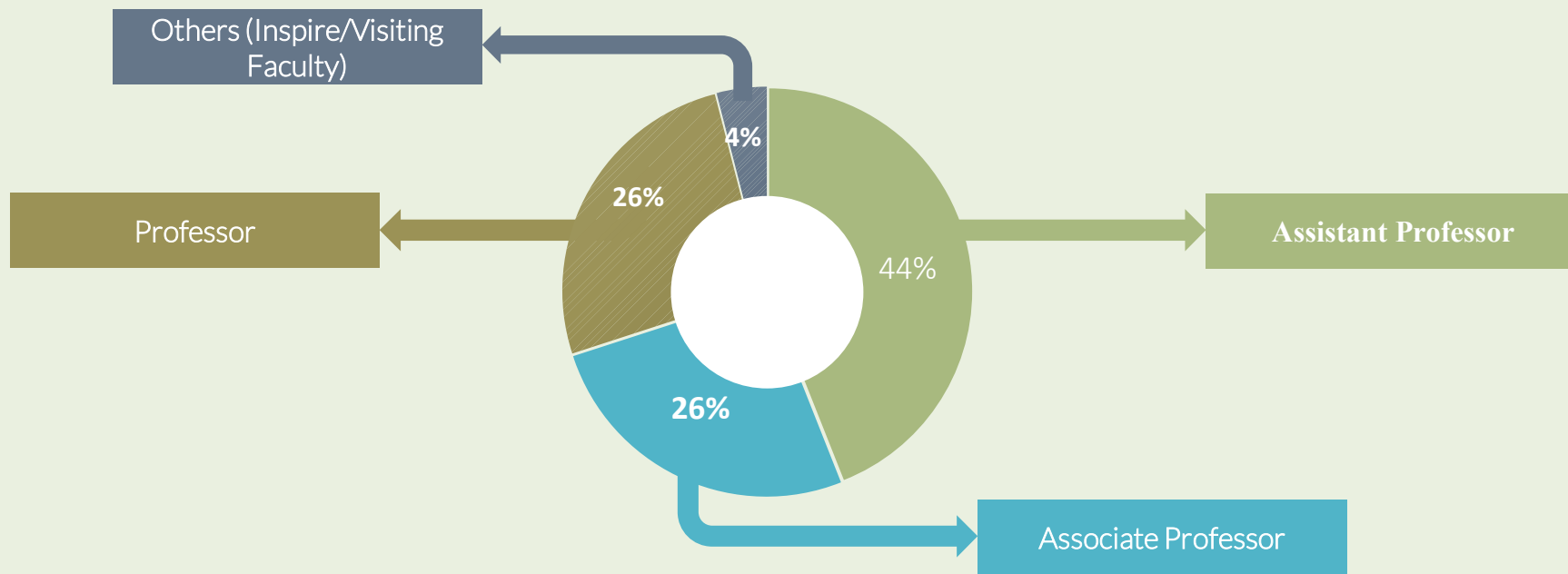
About 12% of the respondents are females



Observations:

About 7 male faculty members responded per 1 female faculty member.

Designation



Observations:

About 70% of the respondents were Assistant or Associate Professors.

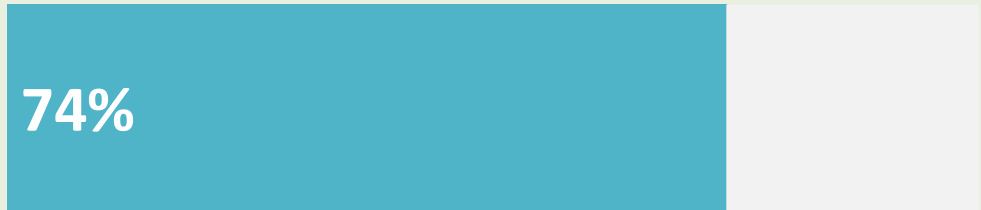
Prior Experience of Online Education



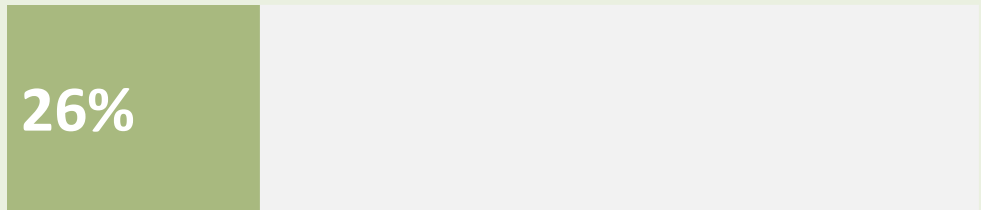
Observations:

About 74% of the faculty members did not have prior experience of conducting fully online courses. Other 26% faculty members have given courses like NPTEL/SWAYAM.

No



Yes

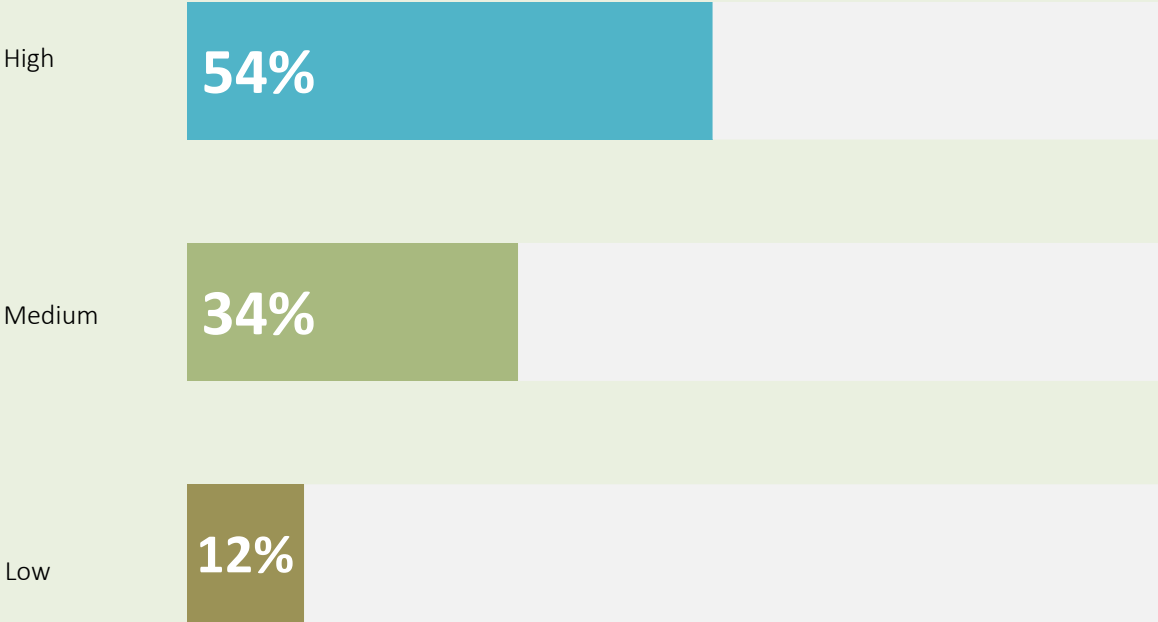


Preparedness for the Online Classes



Observations:

About 88% of the faculty members had medium to high preparedness for conducting classes online. This may be because even in the in-campus teaching, except lecture delivery and exams, other aspects (assignments, sharing material etc.) are done online.

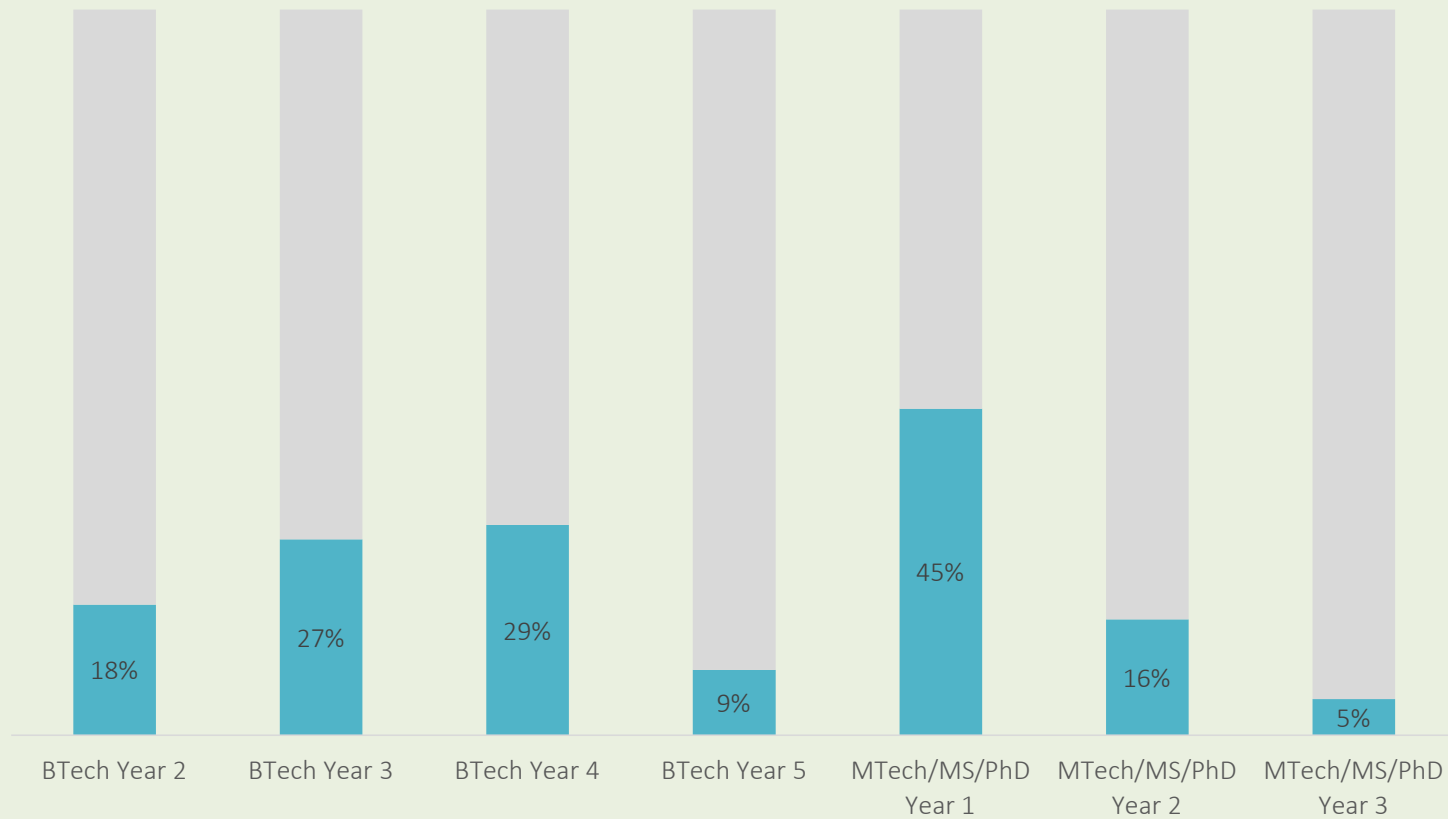


PROGRAM OF STUDY



Observations:

Major fractions of instructors conducted online classes for first year masters students and final year undergraduate students.

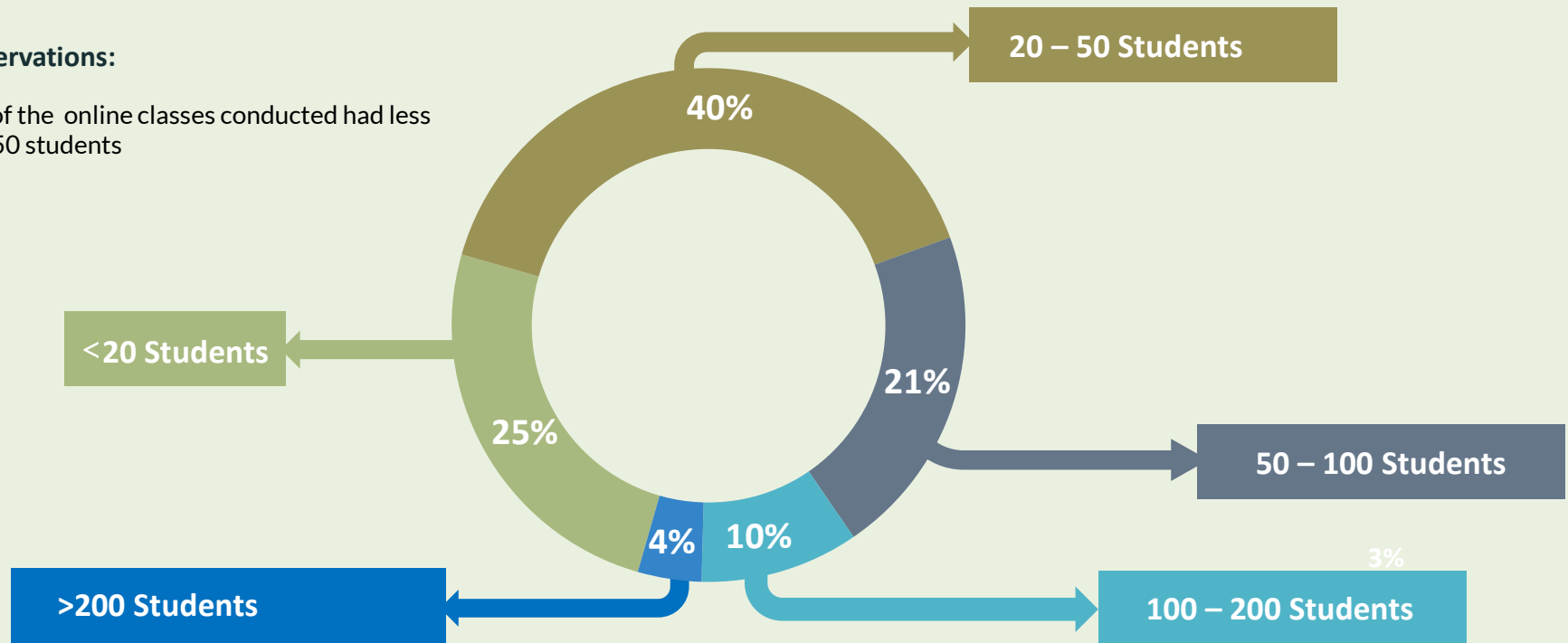


Course Participants



Observations:

65% of the online classes conducted had less than 50 students

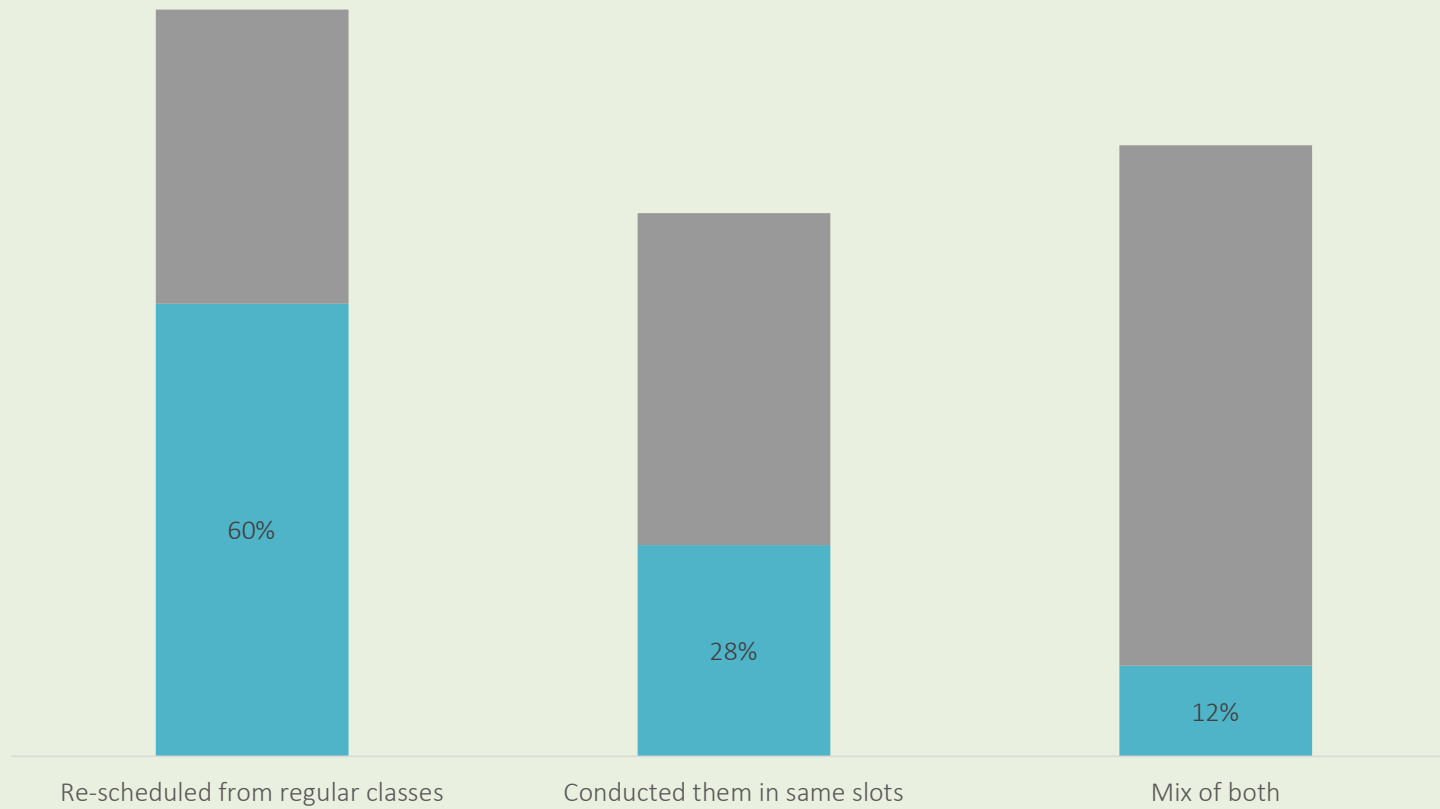


Time-Table for Online Classes



Observations:

Majority of the faculty members re-scheduled their classes from regular slots when they switched to the online mode.

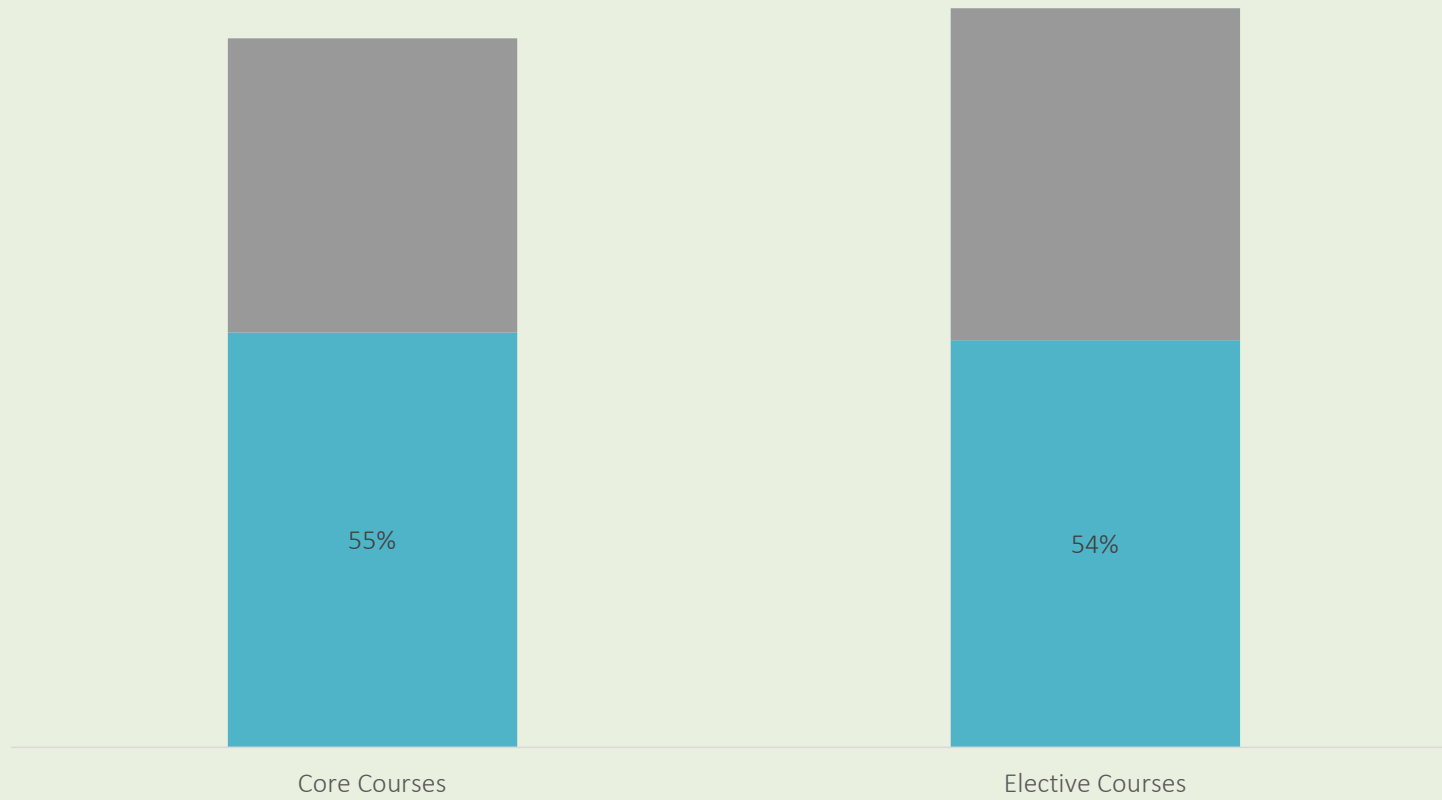


Core or Elective Class?



Observations:

Among the conducted courses, about 55% were core and 55% were elective courses. Note that some of the courses may be core for some and elective for other students.

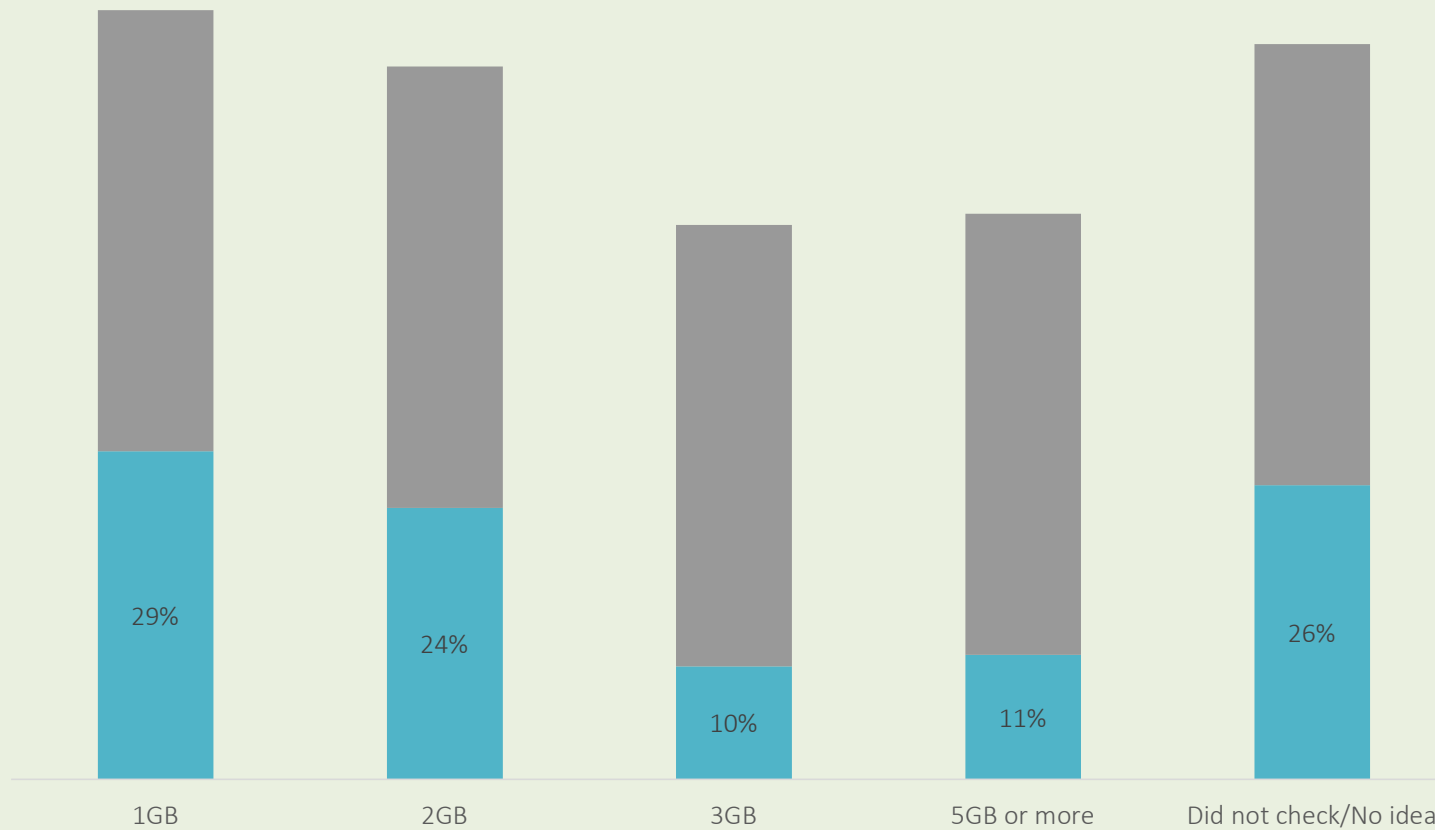


Minimum Data/Day Required for Online Classes



Observations:

About 30% instructors felt that 1GB/day data and 45% felt that more than 2GB/day data is required for offering decent online classes (instructor-side). Others have not checked.

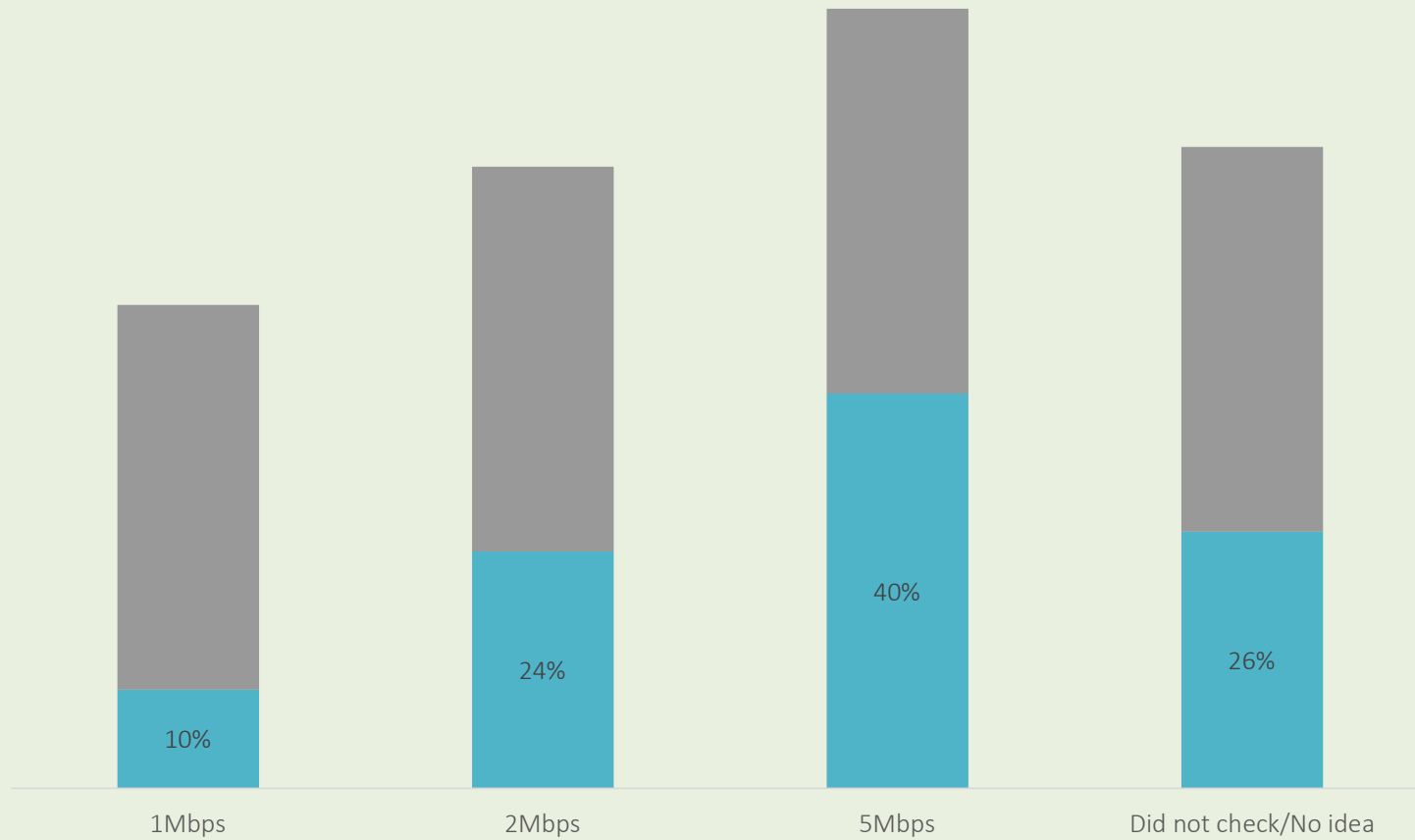


Minimum Data Speed for Required for Online Classes



Observations:

About 40% of the instructors feel that about 5Mbps speed is required for conducting decent online class (instructor-side).

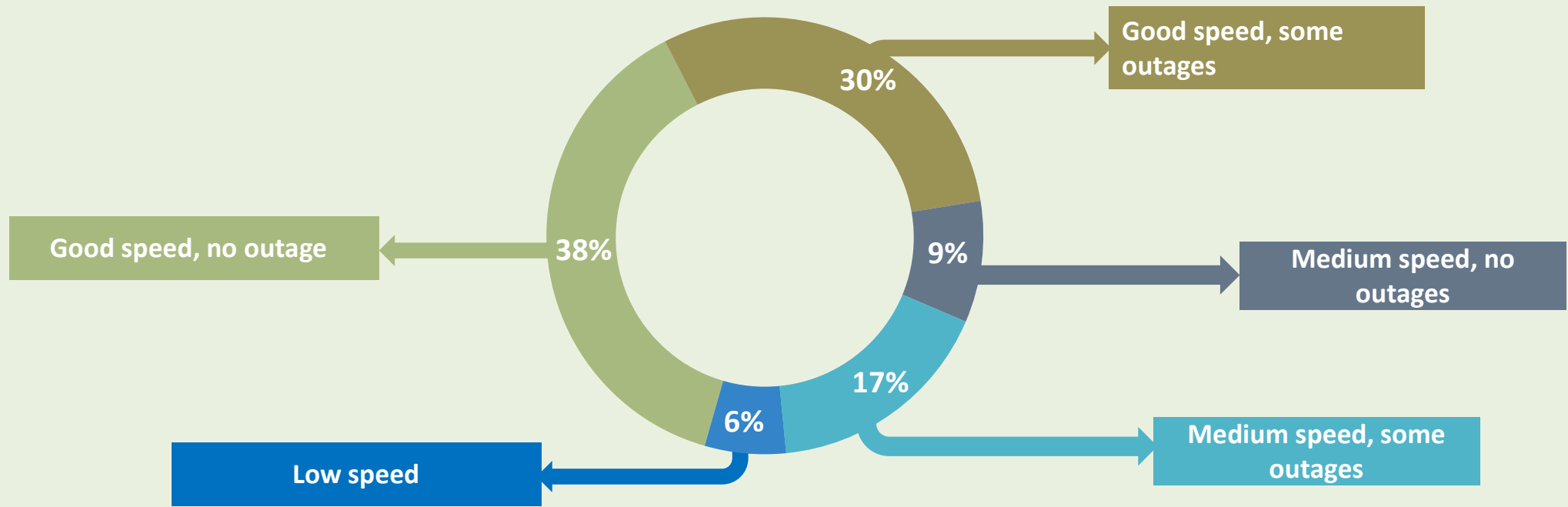


Quality of Internet Connection



Observations:

Majority of the faculty members had decent internet connection.

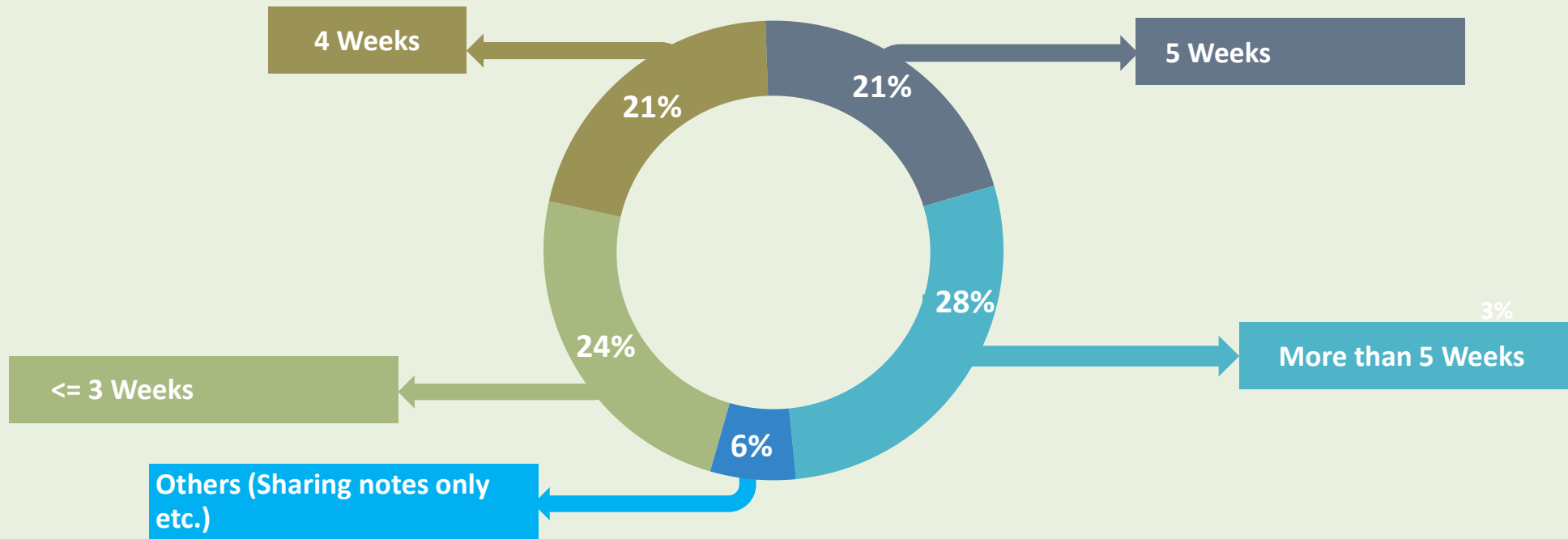


How Many Weeks of Online Classes?



Observations:

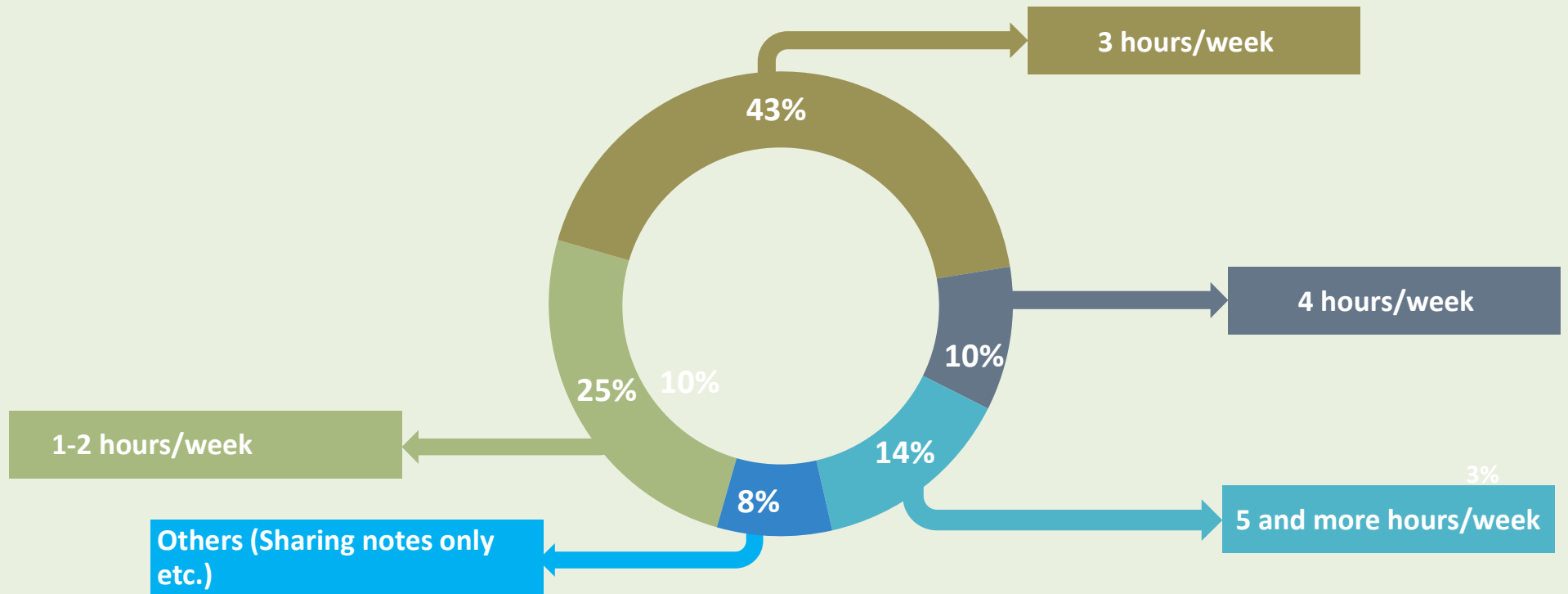
About 70% of the classes were held for more than 3 weeks.



Hours/Week

Observations:

About 43% of the classes had instruction for more than 3 hours/week.

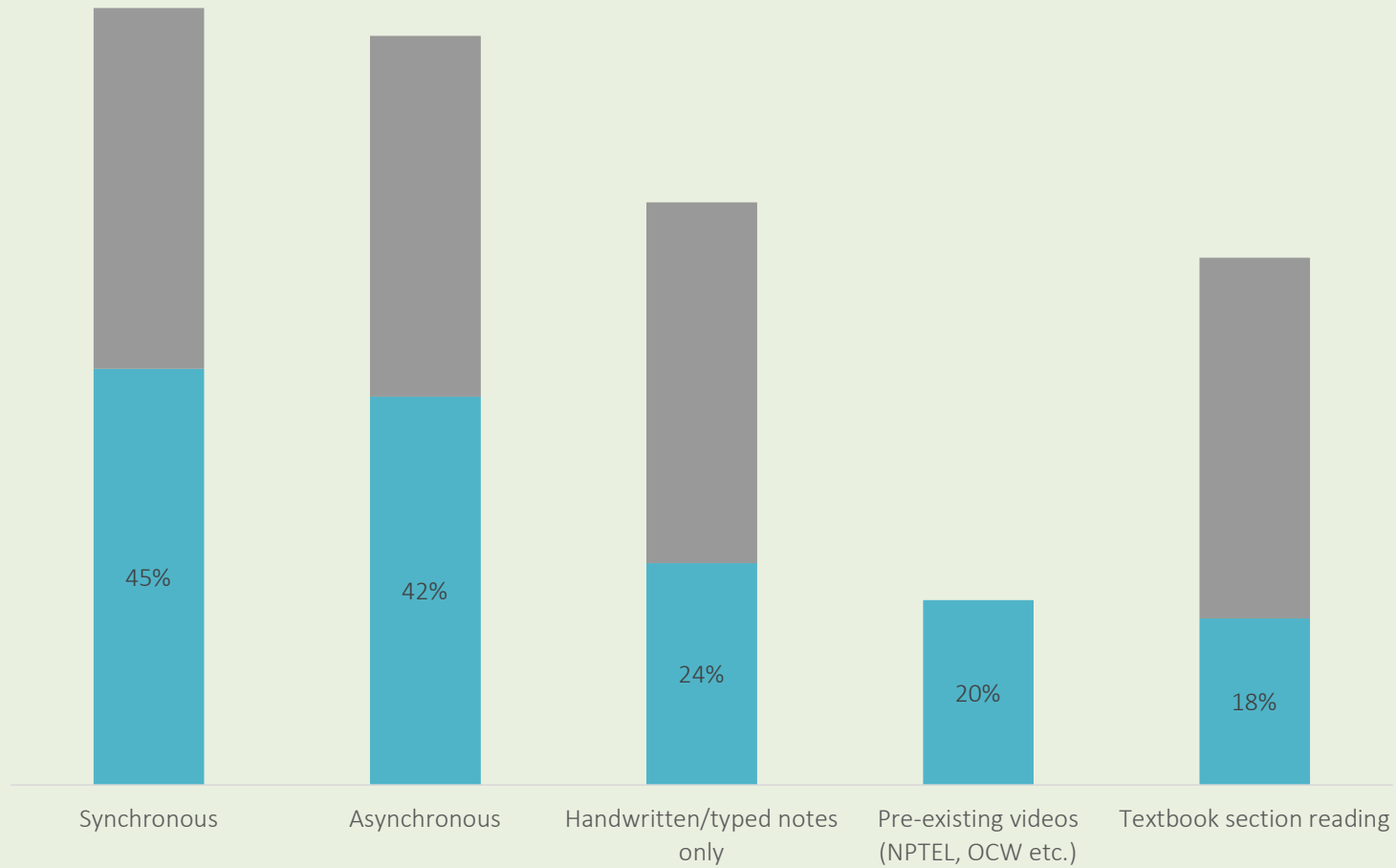


Mode of Delivery



Observations:

About 45% of the instructors conducted classes in synchronous mode.

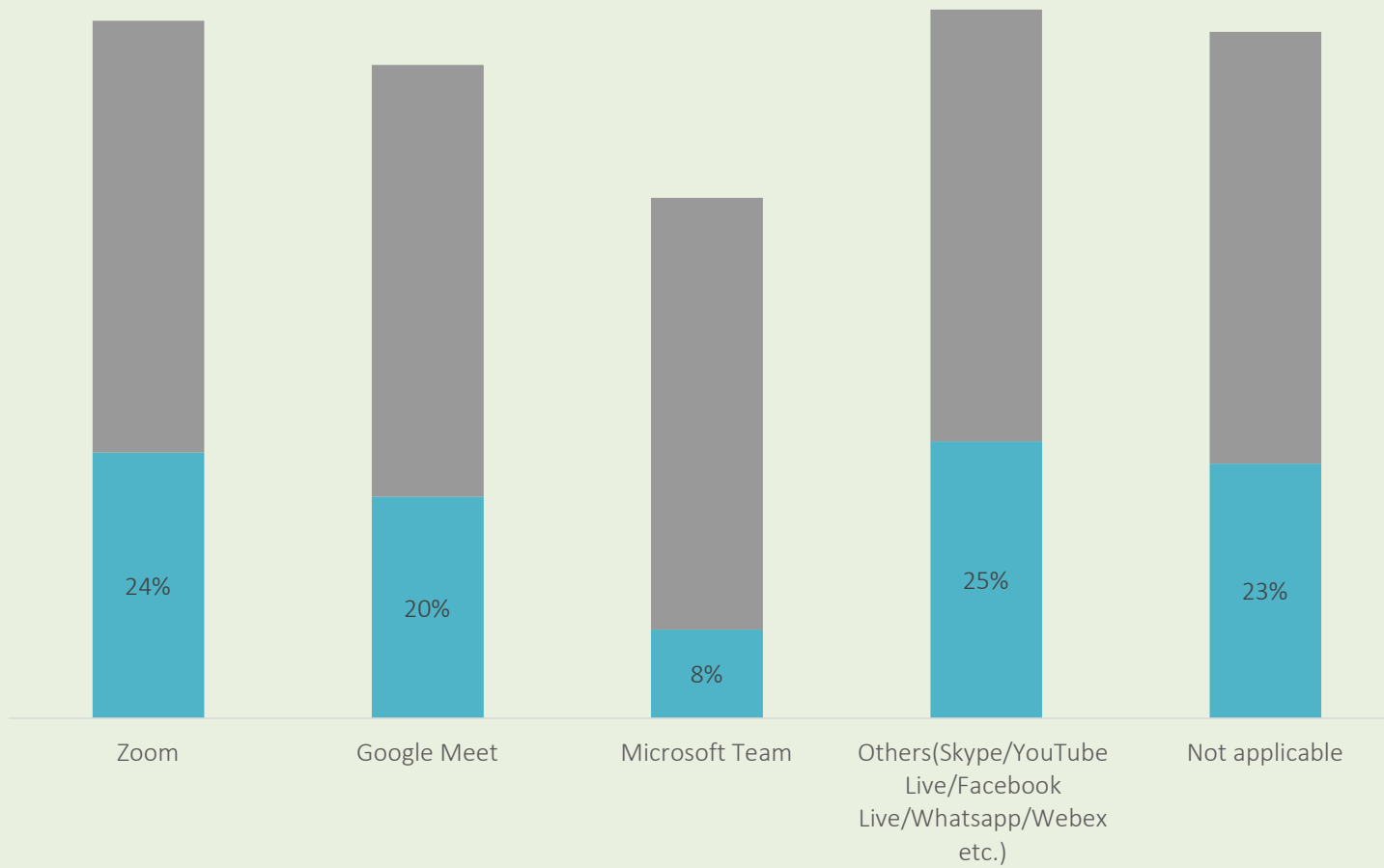


Tools Used for Synchronous Mode



Observations:

Zoom and Google Meet are the most widely used tools for synchronous delivery of lectures.

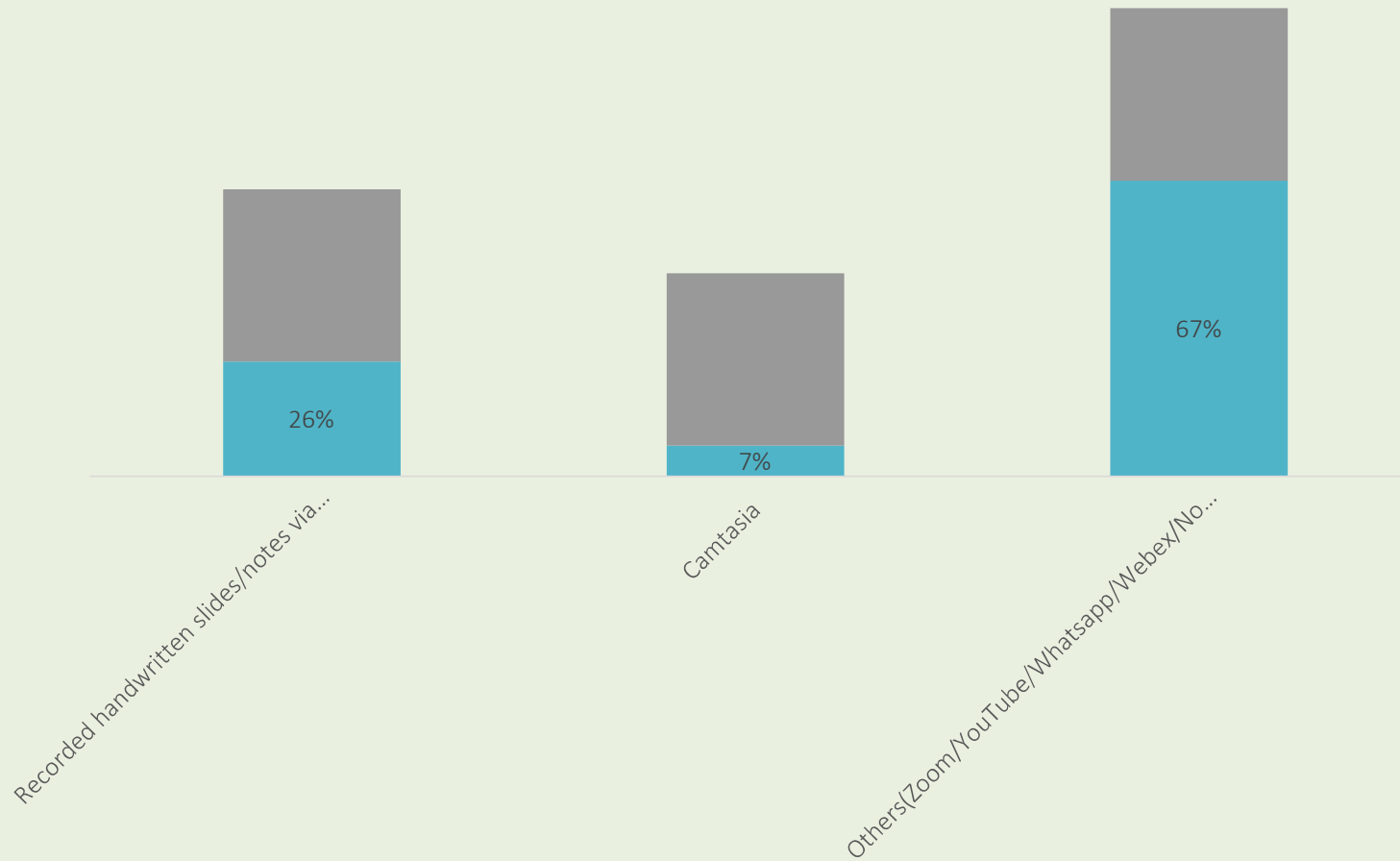


Tools Used for Asynchronous Mode



Observations:

About 26% of the instructors recorded handwritten slides/notes via mobile phones. Looks like there is no preference for a tool over others, as many used various different tools.

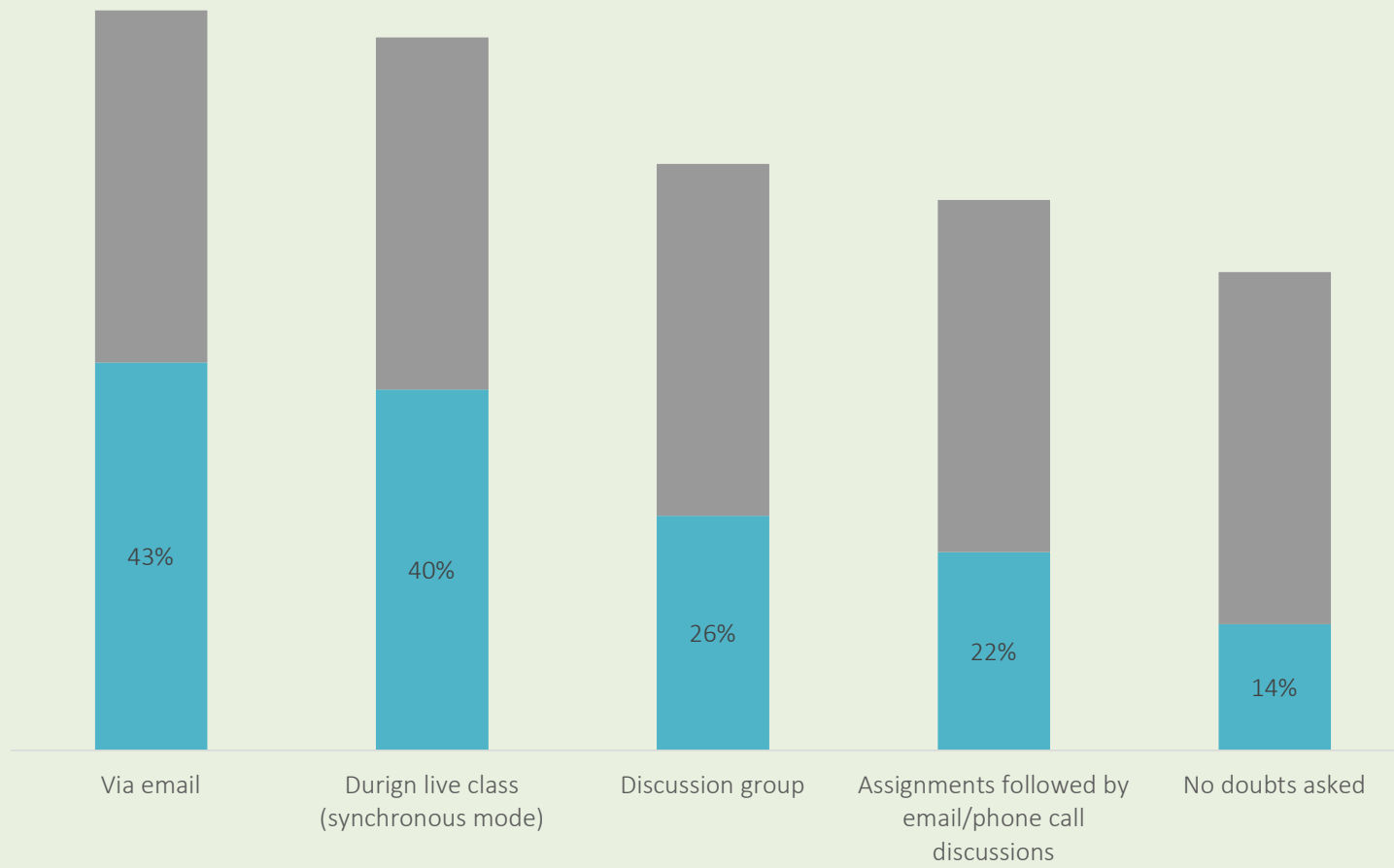


Doubt Clarification



Observations:

Only 40% of the instructors were able to clarify doubts in the synchronous mode.

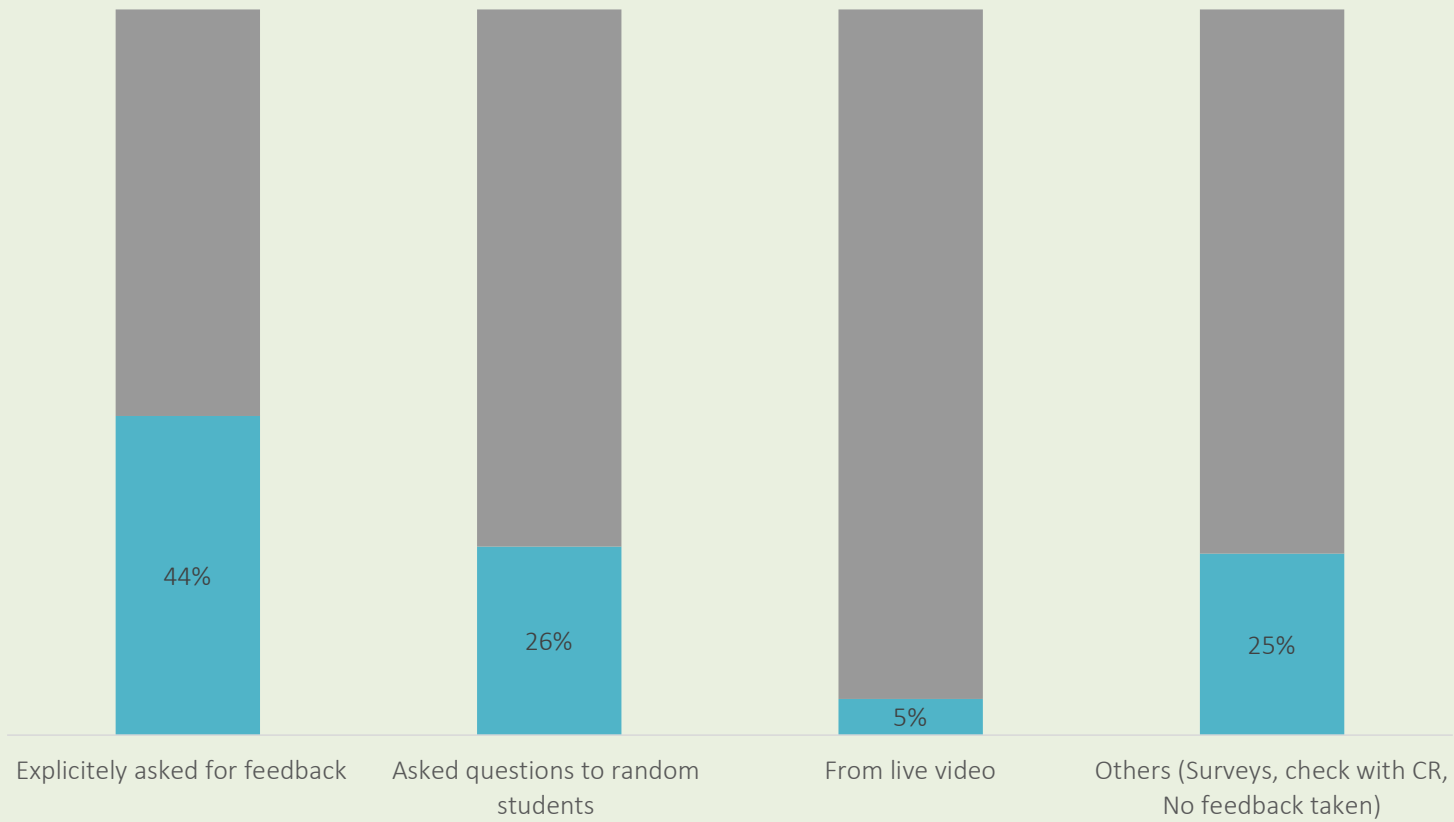


Gauging Student Feedback



Observations:

Live videos from students were not really useful for gauging students' feedback during live classes.

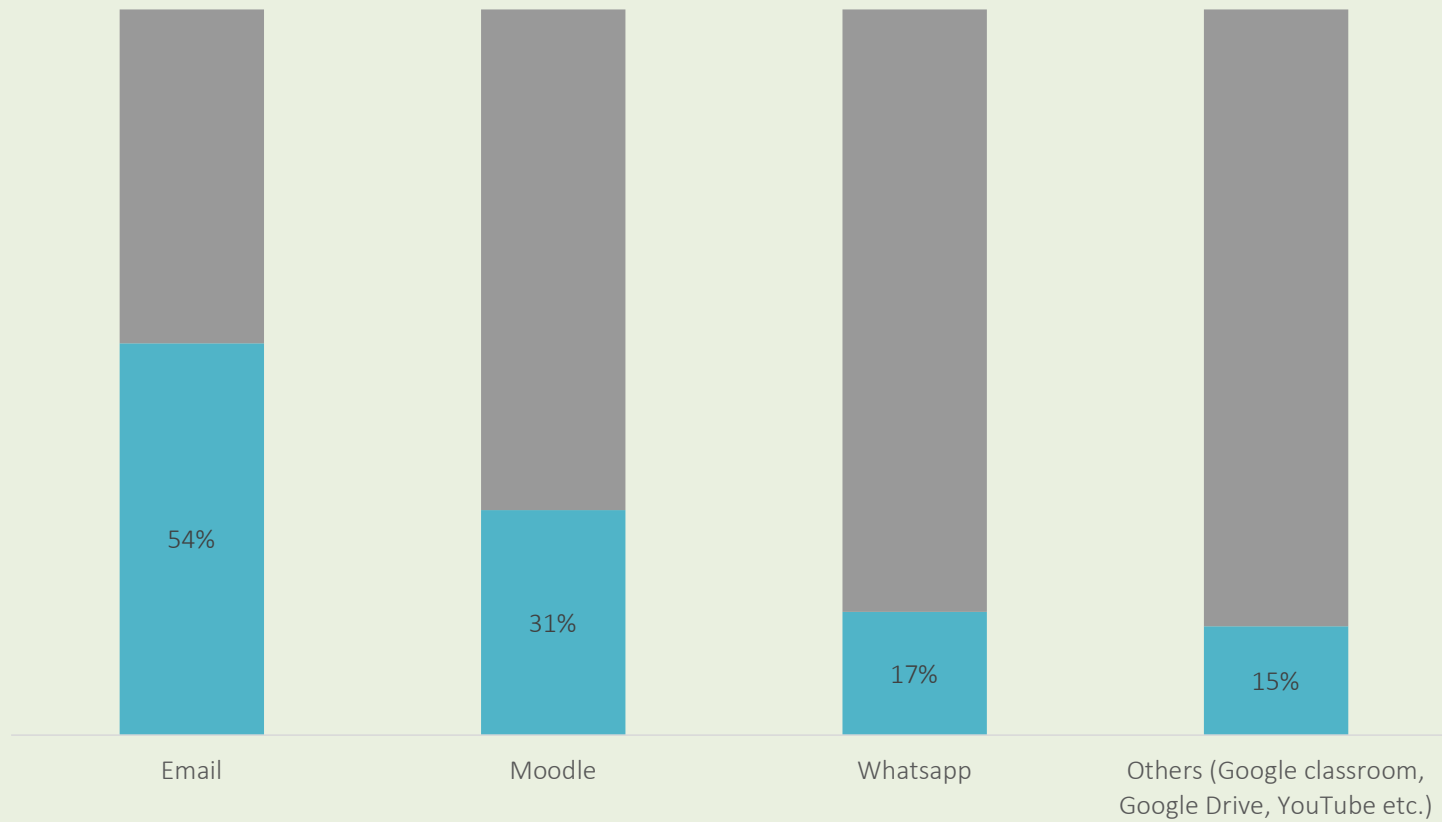


Material Shared Via?

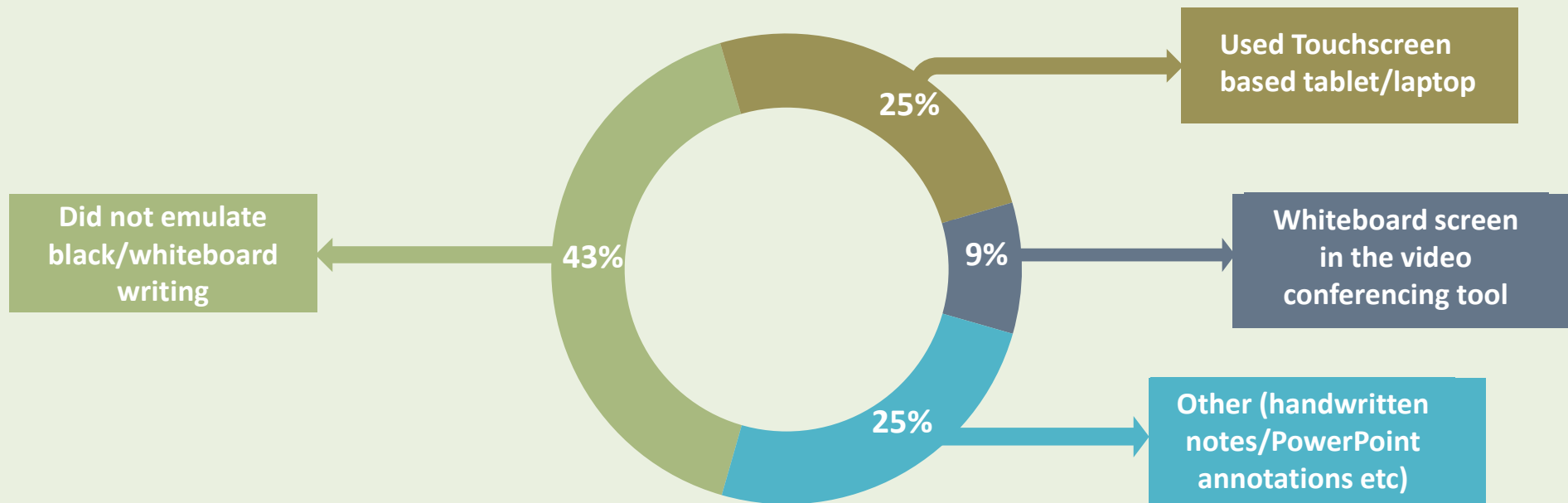


Observations:

Sharing material via email is the most widely used method.



How Did You Emulate Black/White Board Work?



Observations:

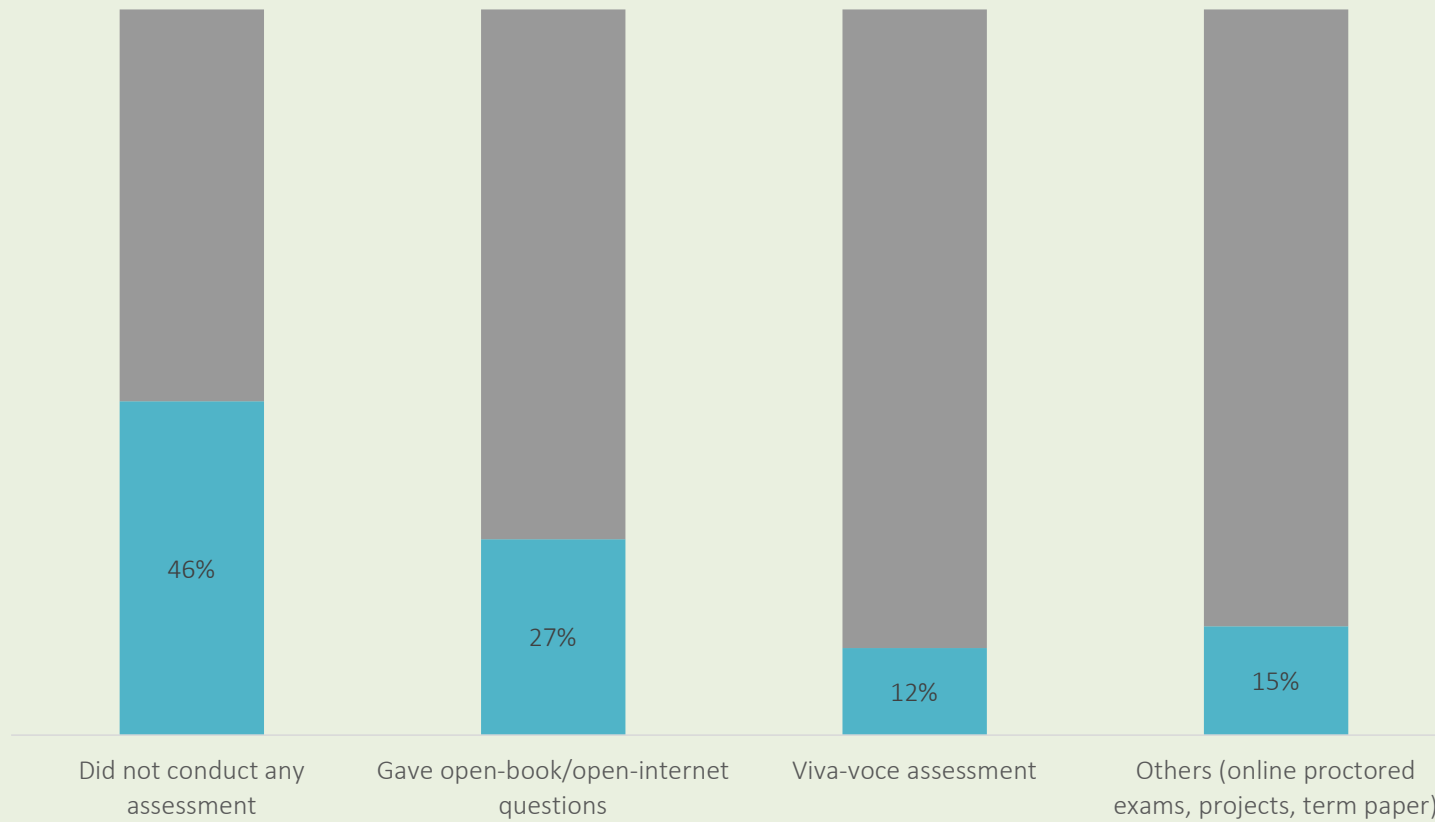
About 43% of instructors did not emulate black/whiteboard writing.

How Did You Conduct Assessment?



Observations:

Most instructors did not conduct any assessment.

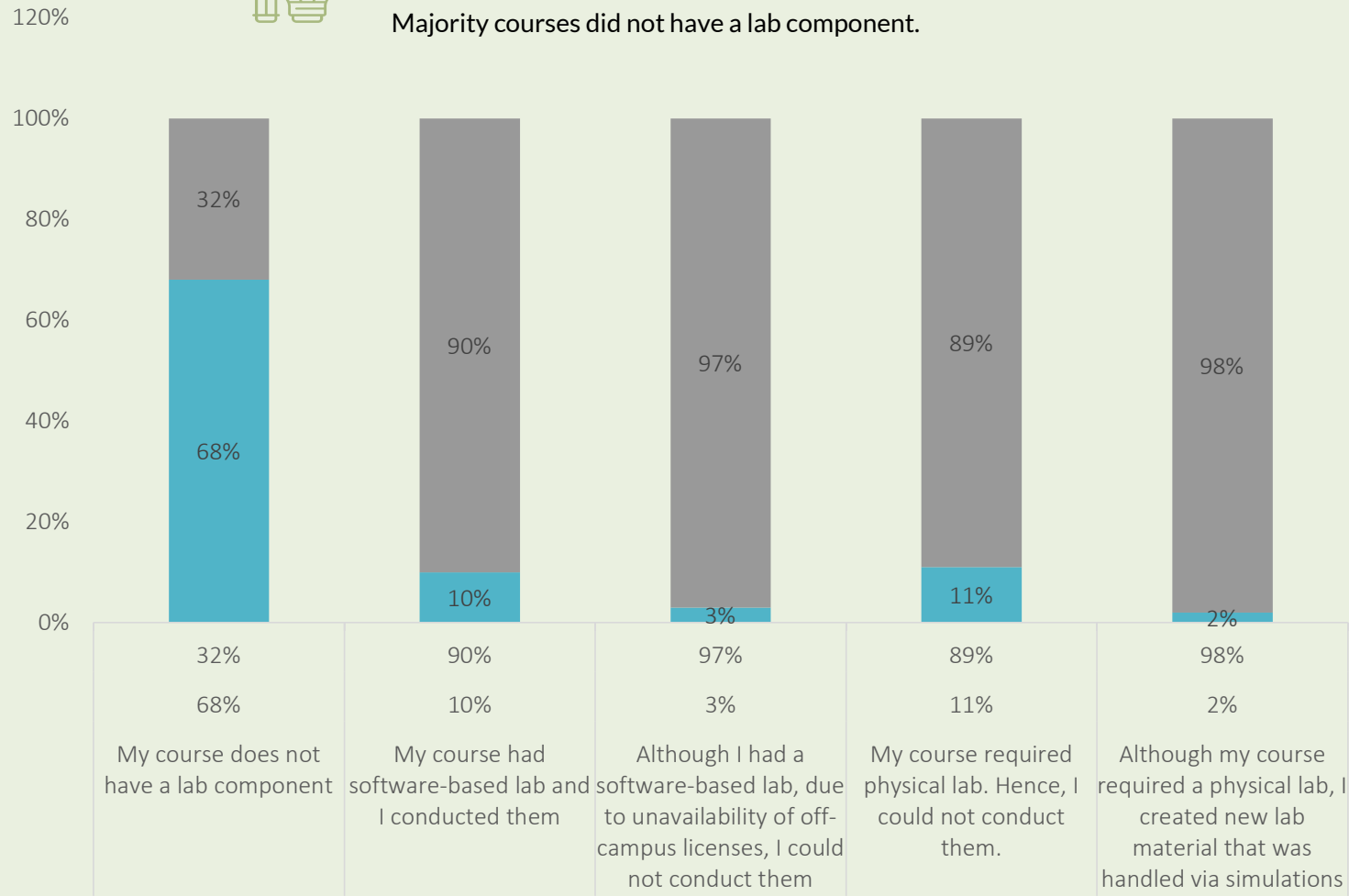


How Did You Conduct Labs?



Observations:

Majority courses did not have a lab component.

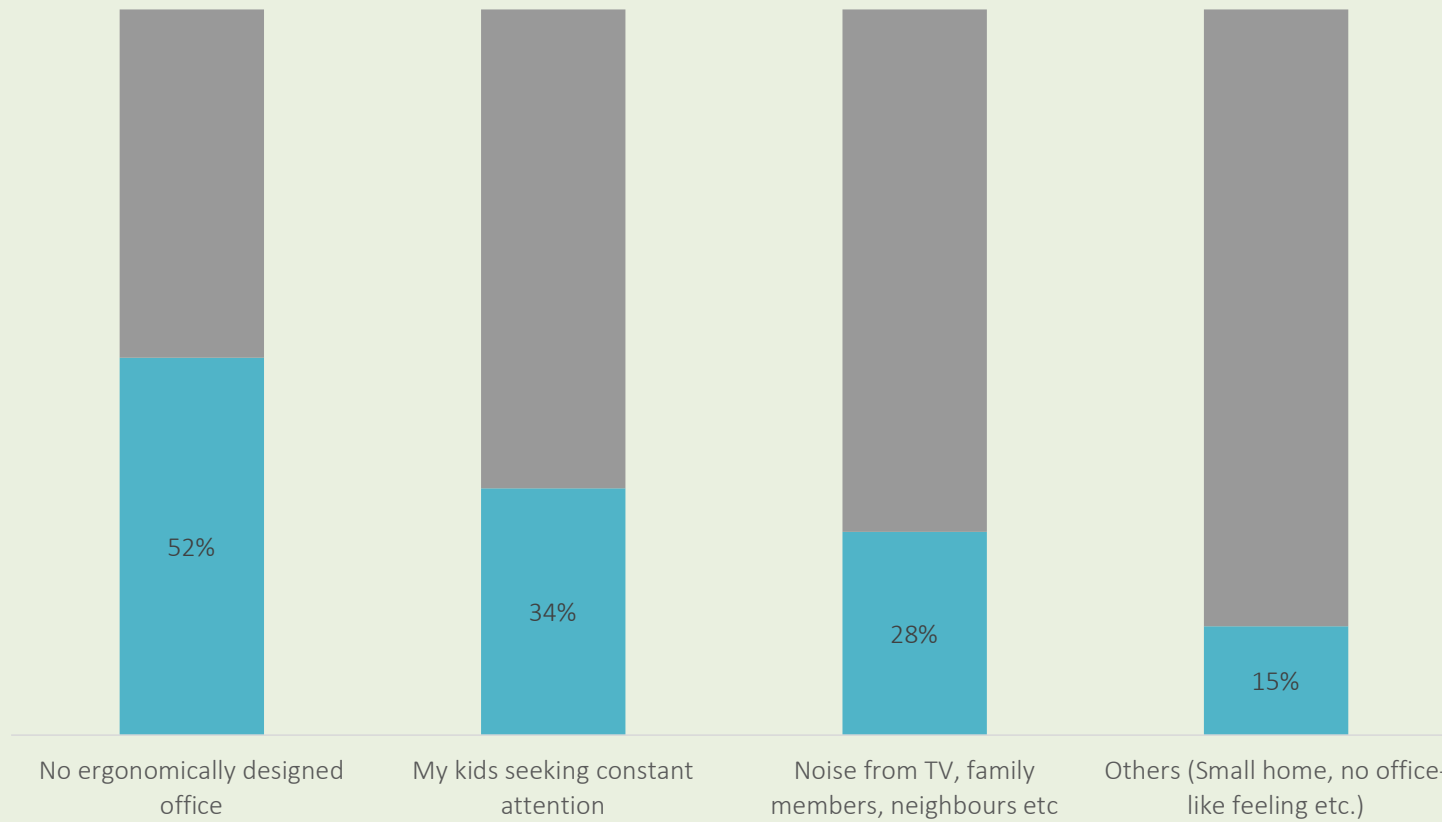


Issues in Working from Home



Observations:

Lack of office setup was the main shortcoming when working from home.

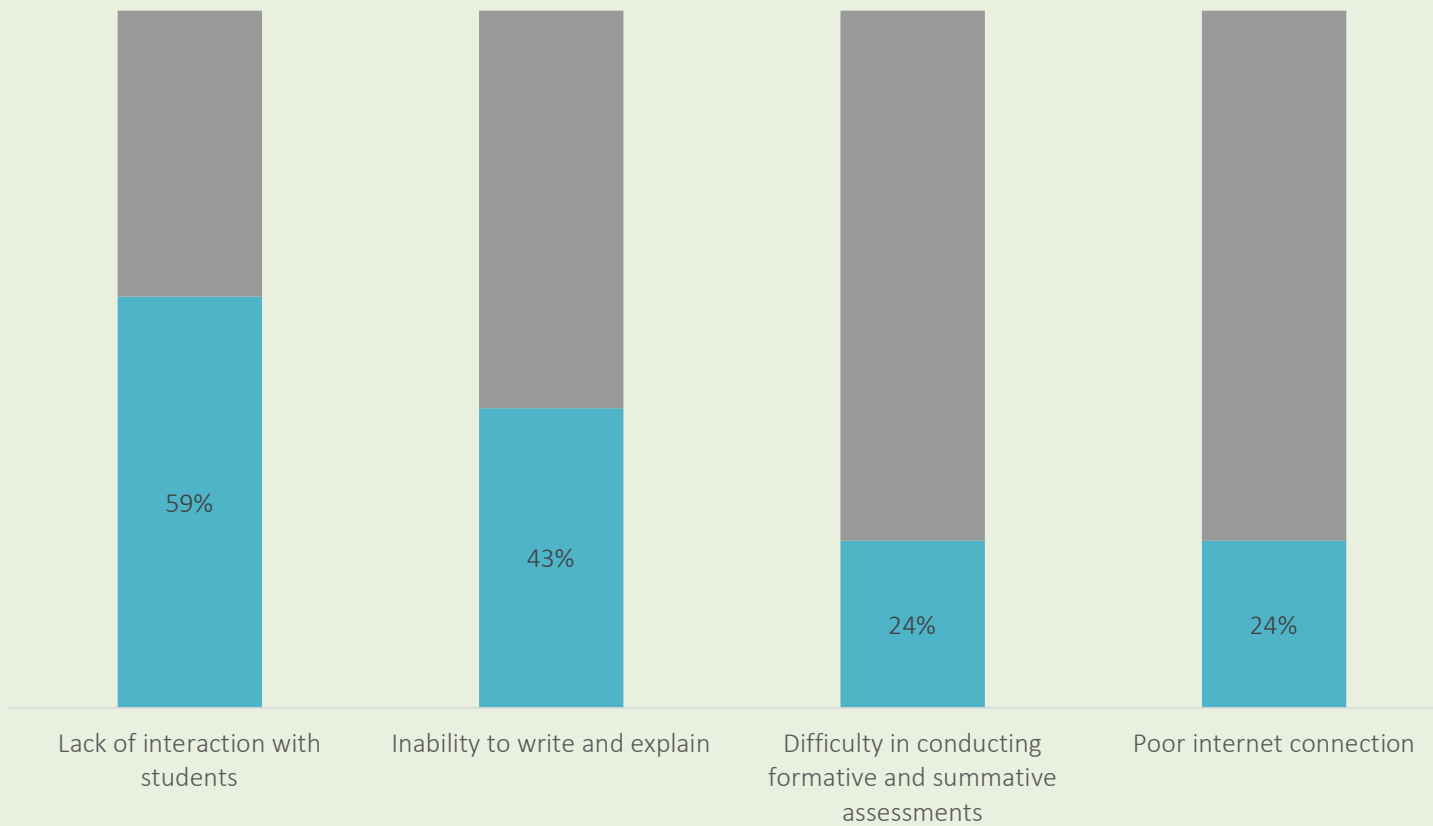


Challenges for Conducting Online Classes Effectively

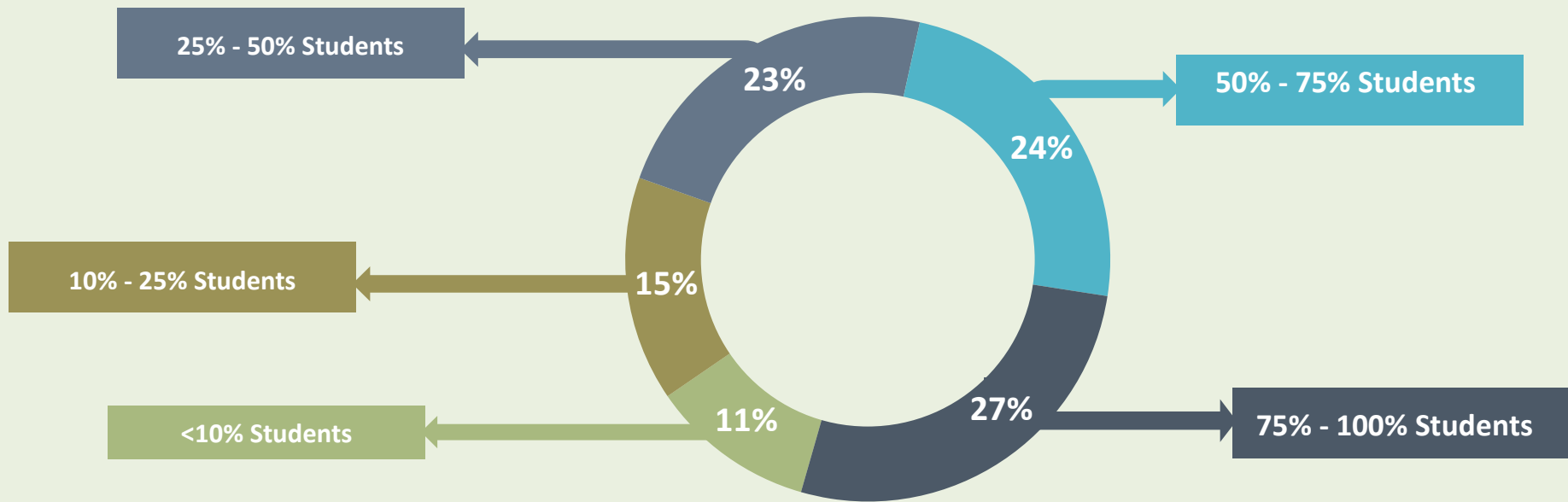


Observations:

Lack of interaction with students is the biggest challenge in conducting online classes effectively.



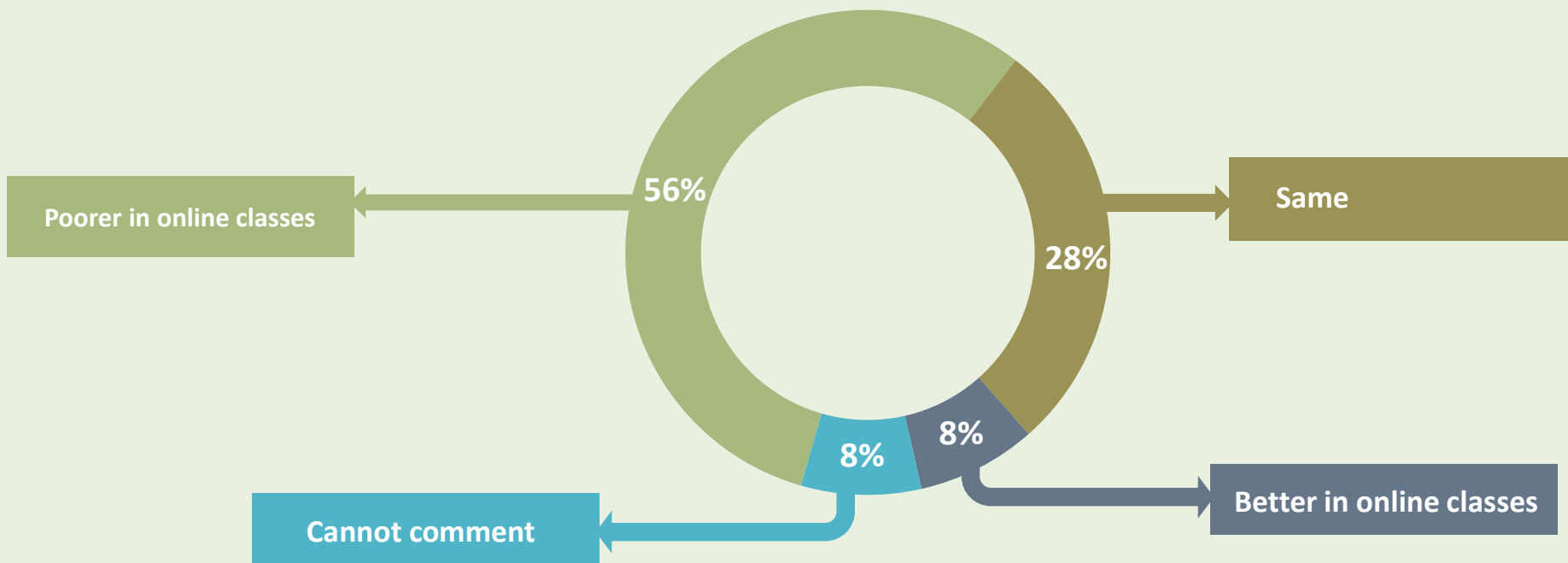
% of Students Actively Participating in Classes



Observations:

About 50% instructors felt that more than 50% of the students have actively participated in online classes.

Student Participation in Online Classes compared to Physical Classes



Observations:

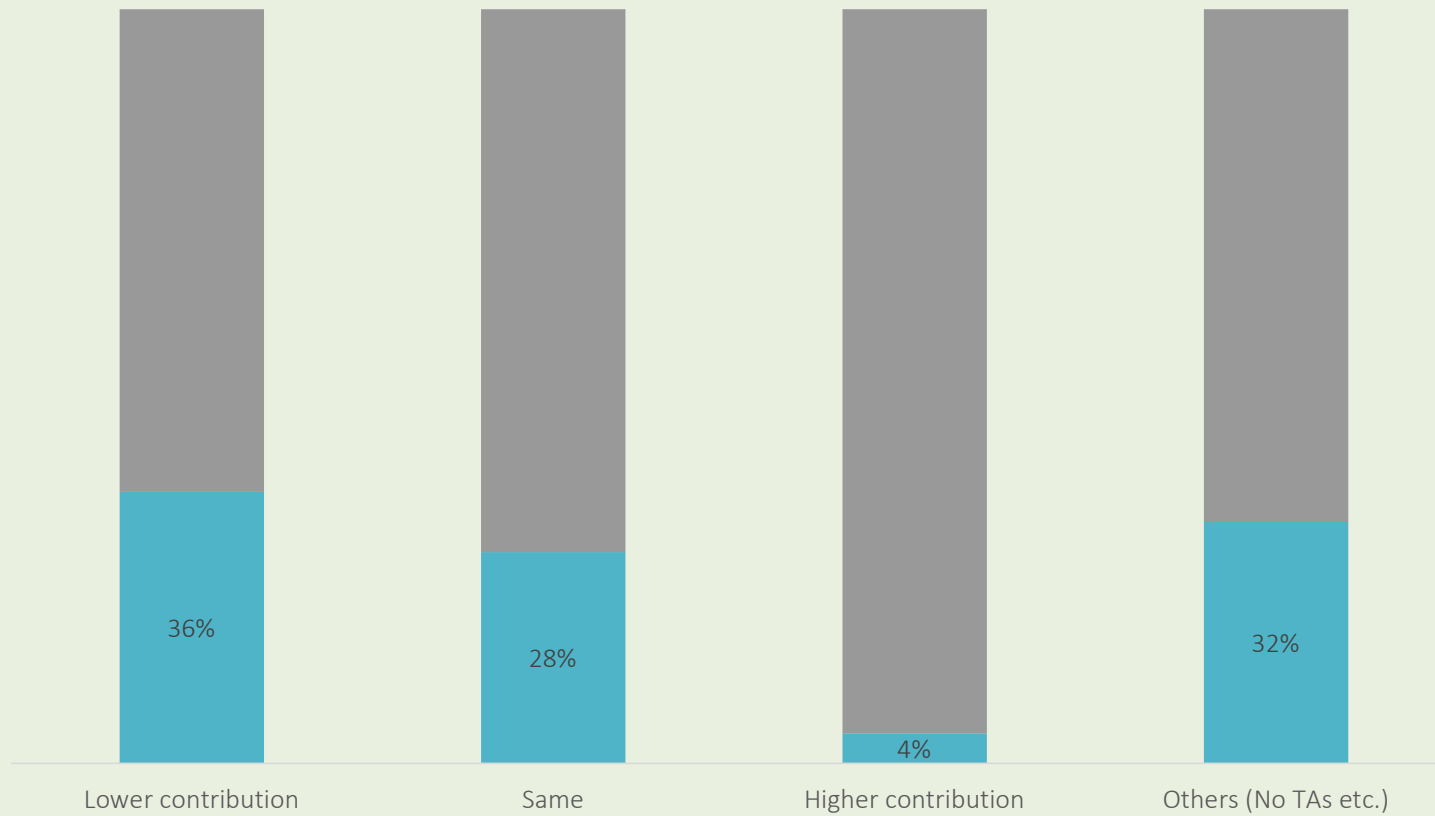
More than 50% instructors felt that participation of students were poorer in online classes. This may be partially because of lack of personal interaction.

Role of TAs in Online Classes Compared to Physical Classes



Observations:

Majority instructors felt that contribution from TAs has been lower during online classes compared to in-campus classes.

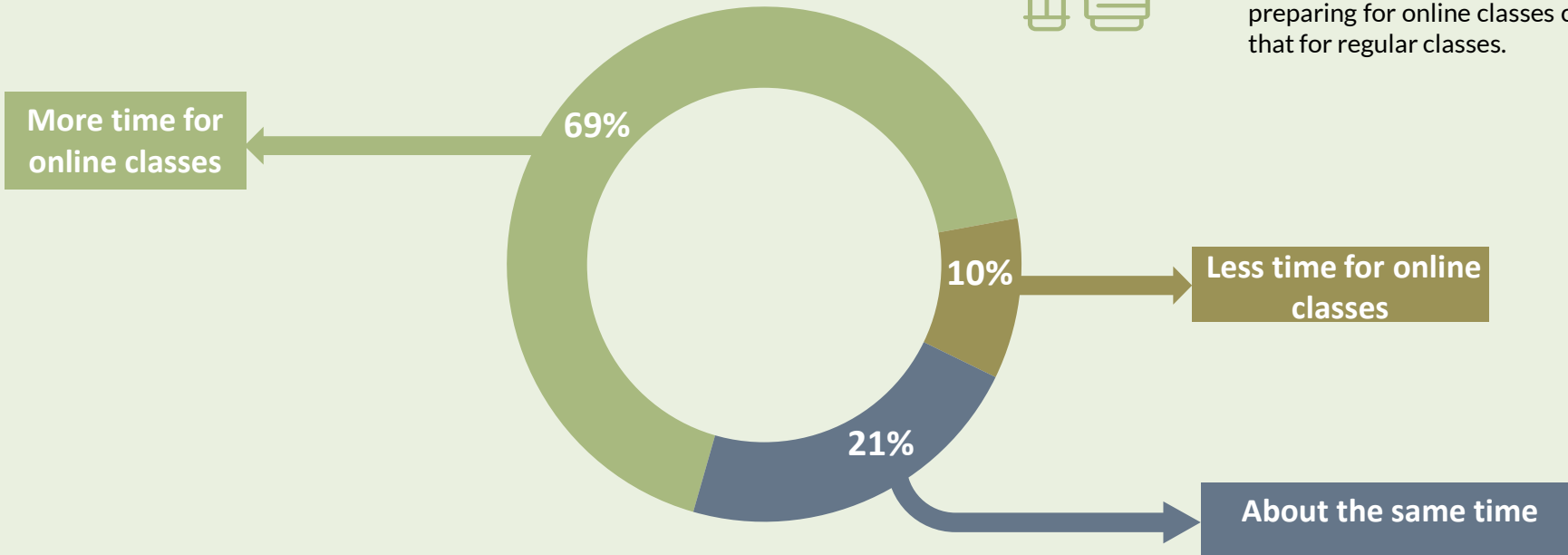


Preparation Time Required for Online Classes Compared to Regular Classes



Observations:

About 70% students spent more time in preparing for online classes compared that for regular classes.

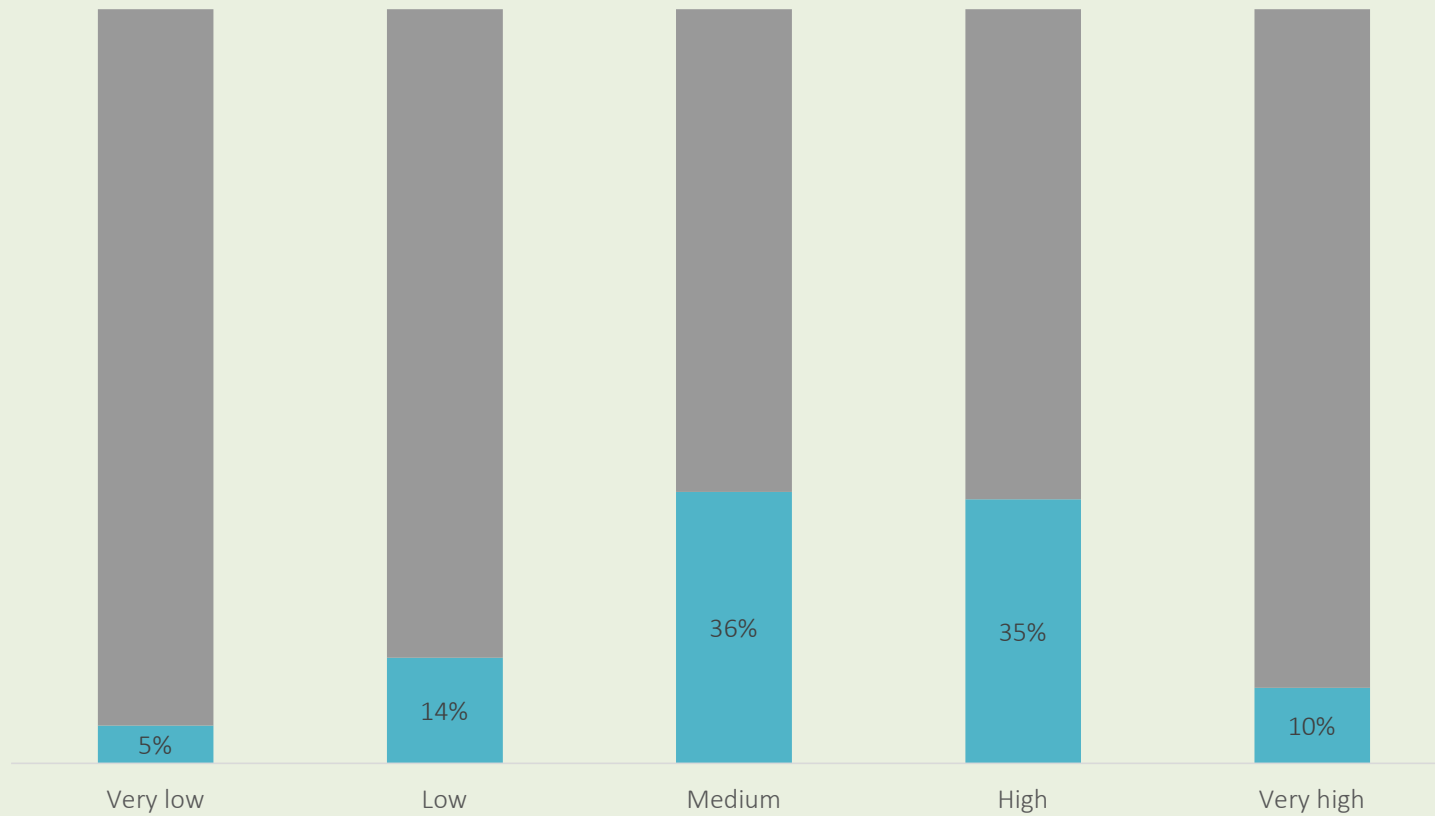


Satisfaction Level with Online Classes Conducted



Observations:

About 80% of the instructors' satisfaction level was medium to very high.

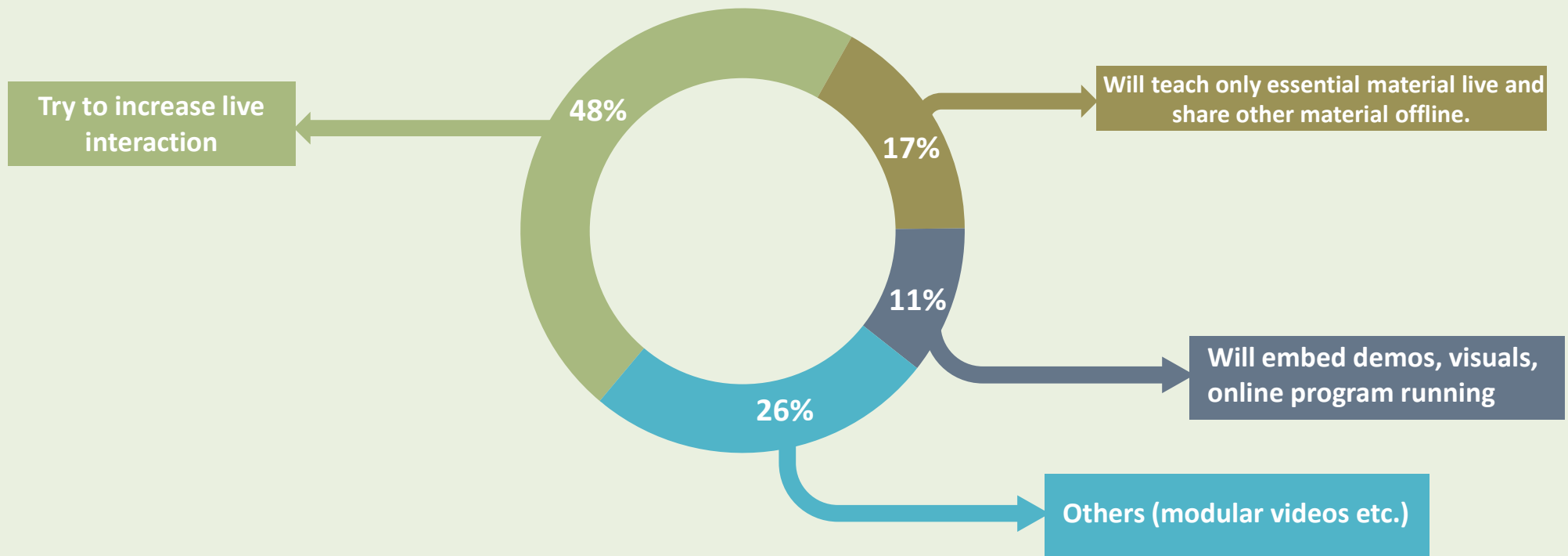


What changes you plan to make on your next online class?



Observations:

Majority of the instructors hope to increase the live interaction with students.

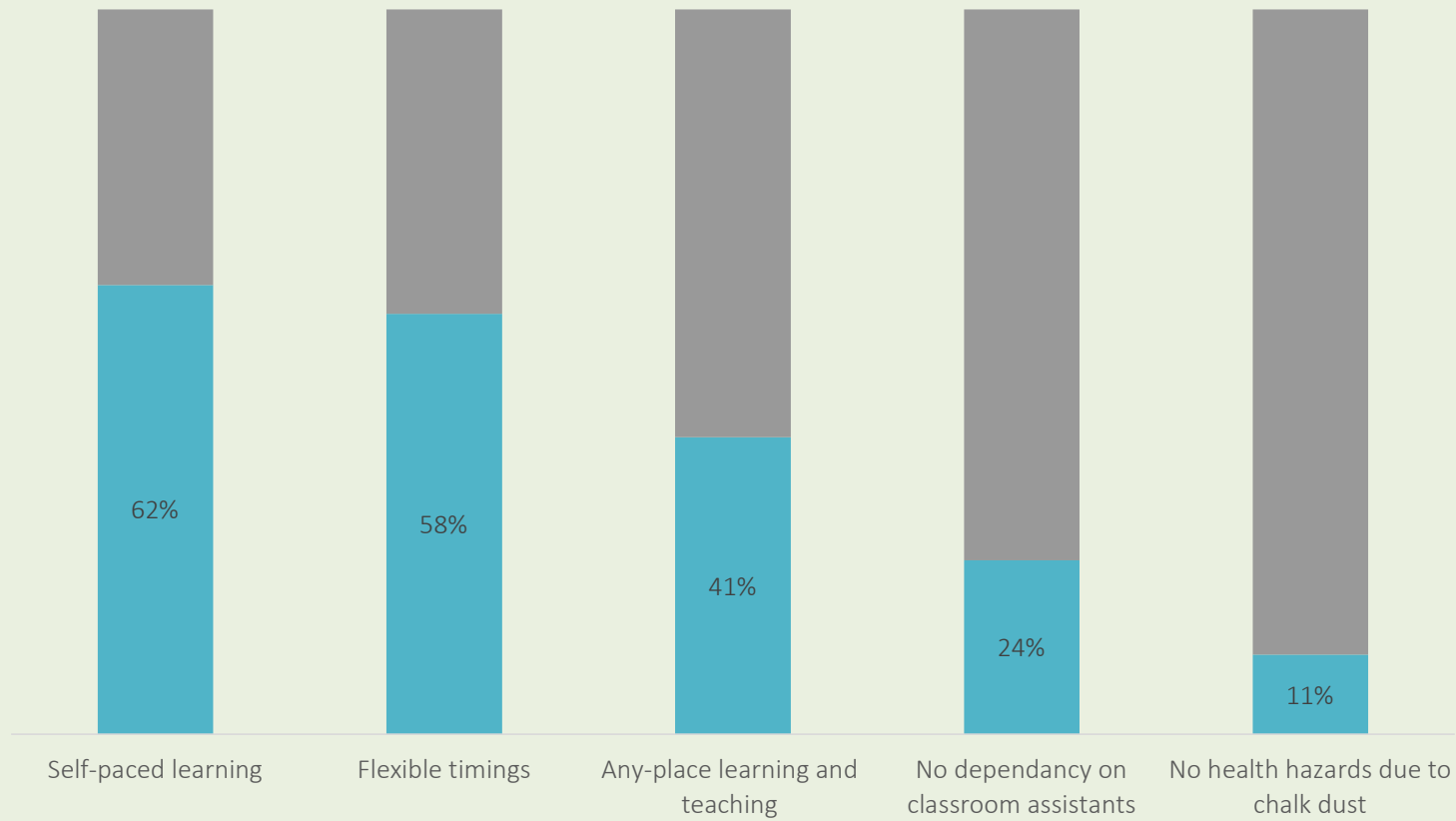


Advantages of Online Education over Brick-and-Mortar Classes



Observations:

Majority of the instructors feel self-paced learning is the greatest advantage of online education.

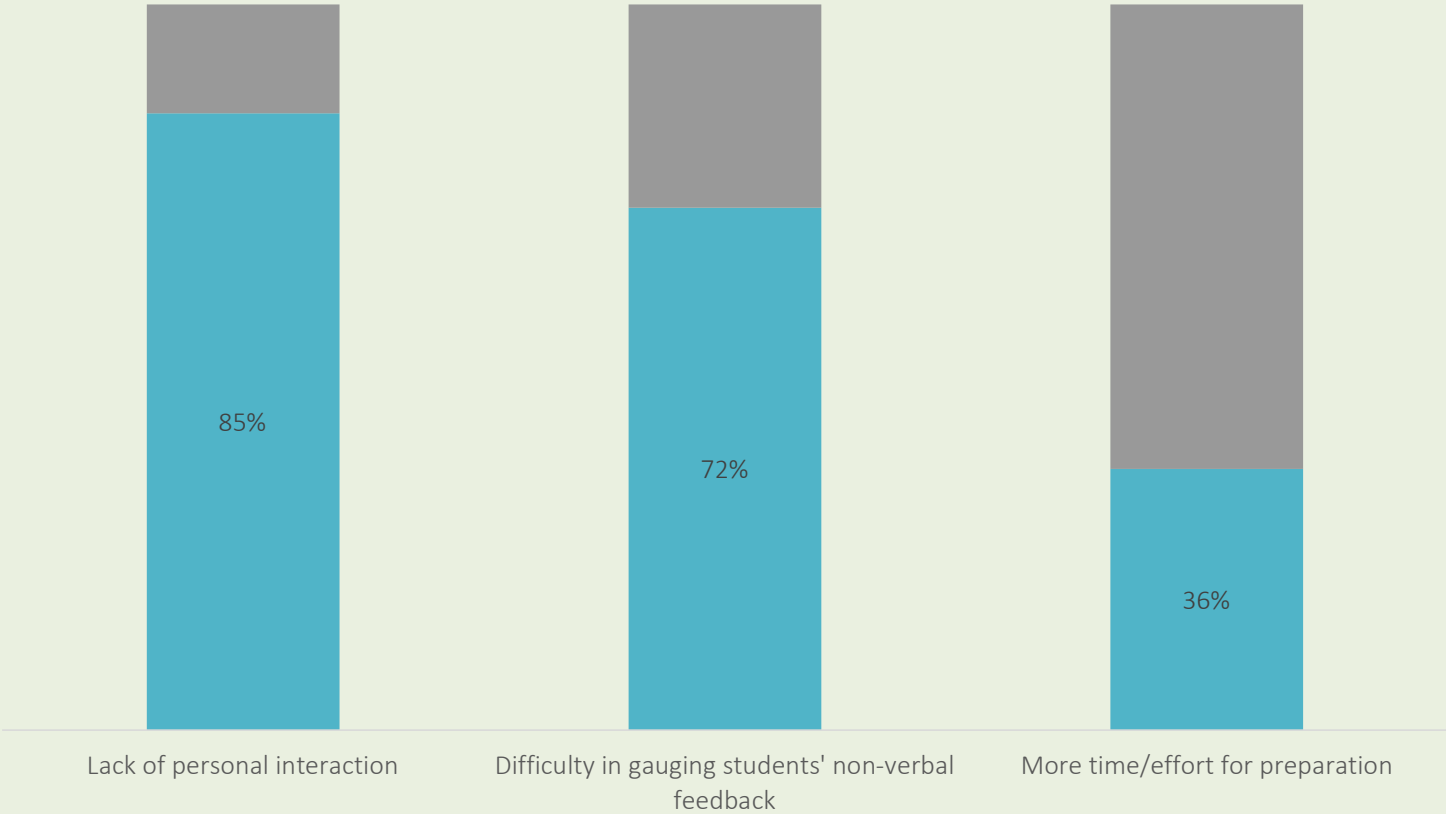


Disadvantages of Online Education over Brick-and-Mortar Classes



Observations:

Lack of personal interaction and difficulty in gauging students' non-verbal feedback seems to be the biggest disadvantage of online education.

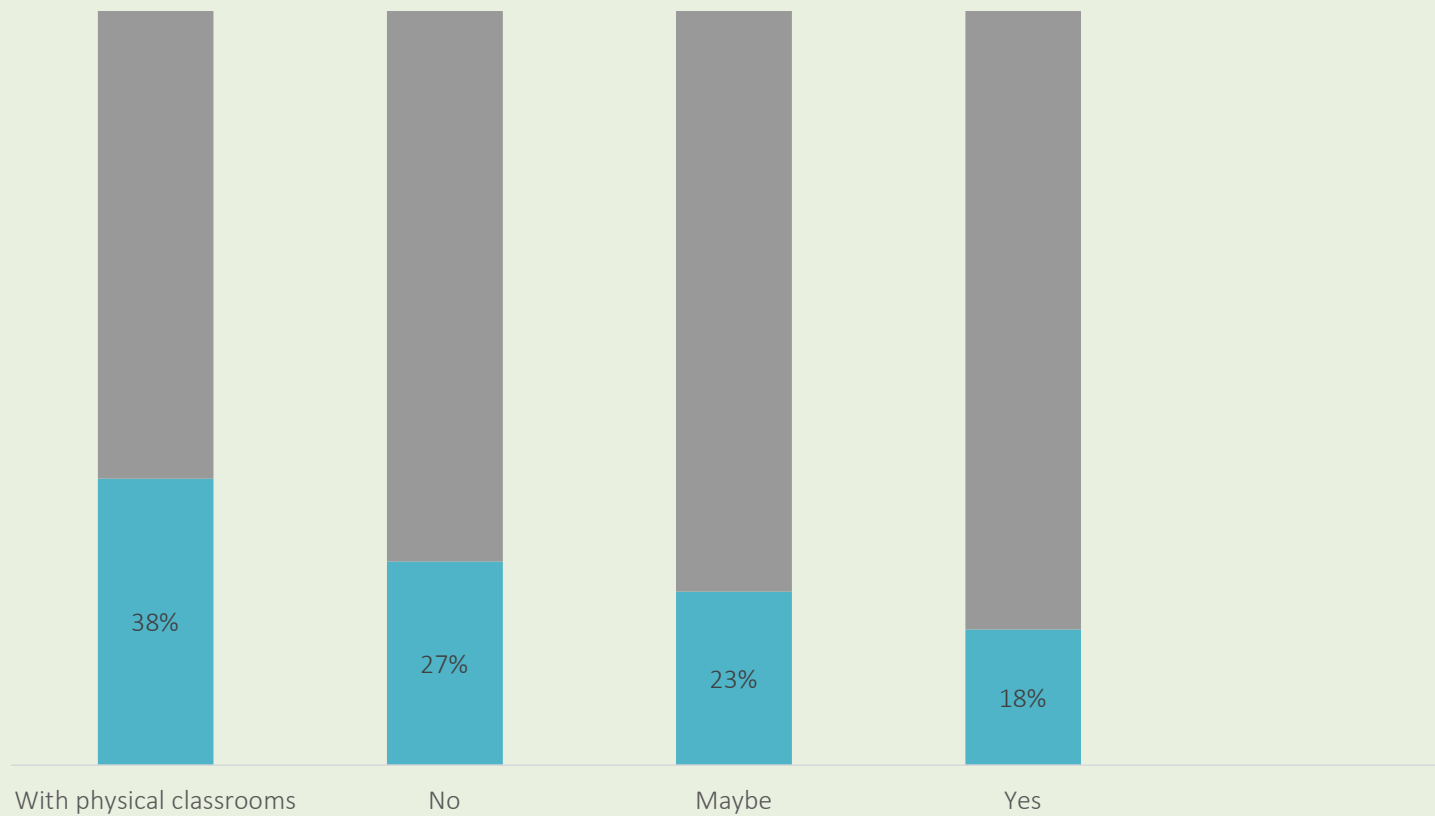


Will Online Education be the Future of Education?



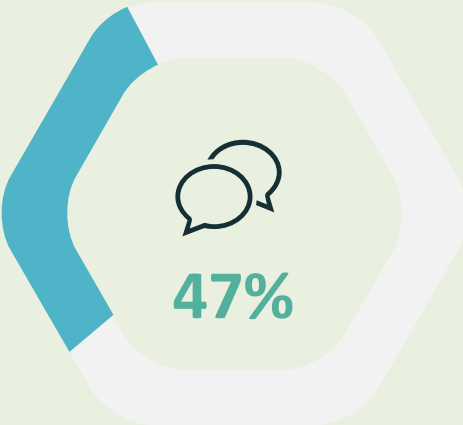
Observations:

Only 18% of the instructors feel that pure online education will be the future of education.

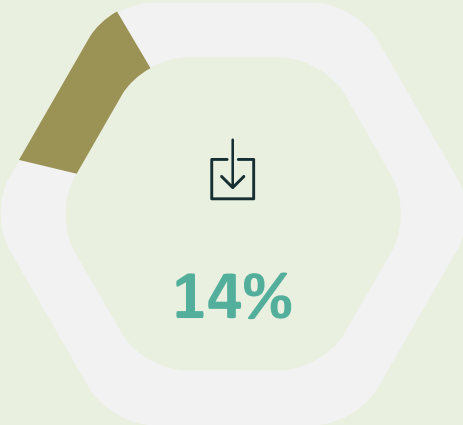


ONLINE DELIVERY MODE PREFERENCE

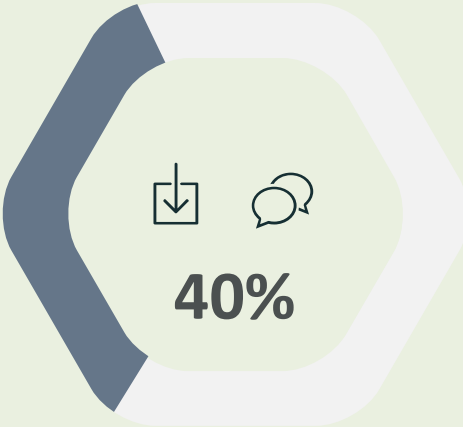
Synchronous Mode



Only Asynchronous Mode



A Combination of Both



Observations:

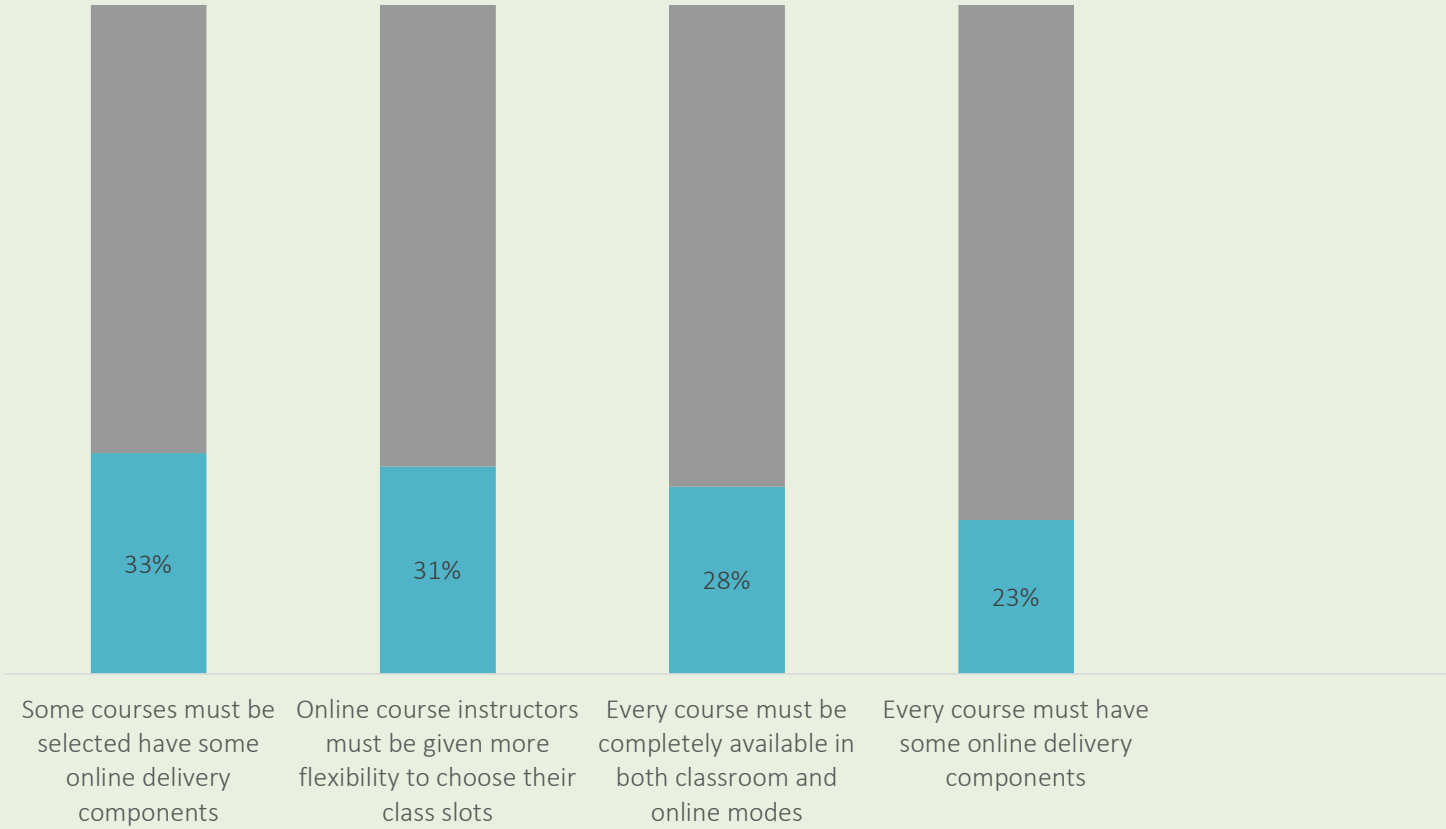
Majority of instructors prefer synchronous mode of delivery.

What policy changes we need to embrace online education in a large scale?



Observations:

For moving towards large scale online education, majority of the instructors feel that we must start with some courses having some online delivery components.



Suggestions for Conducting Online Exams



Observations:

About 60% of instructors feel that we must have multiple components, such as assignments, quizzes, course projects and classroom questions, in evaluating students in an online course.

