

Inquirer 1 2023 - Outline of Methodology

Board for Student Publications, IIT Delhi

Initial concept ideation was pitched to Prof. Gaurav Goel in a BSP editorial meeting online. The document used is linked below. This was a first-level ideation which went through changes and updates as more information was unveiled.

[Inquirer 1 '23: Ideation doc: Casteism](#)

The first offline meeting for Inquirer took place on 2023-07-26 at SAC with around 10 BSP journalists onboard.

Due to the immense breadth and scope of the project, the team was subdivided into groups and worked on various aspects separately.

The various aspects were:

1. Professor/Faculty interviews
2. **Student survey / Primary data collection**
3. Secondary data collection / Finding public documents regarding the topic
4. An op-ed

The following report is only related to point 2 above.

Student survey

It was acknowledged that the primary data collection source must be unbiased since it guides the direction of the report and has immense repercussions.

The following measures were taken:

1. Extensive research into statistically sound survey design and learning about methods like hypothesis-driven approach, Chi2 tests, etc.
2. Consultation with an external faculty member who has experience in such survey design. (Prof. P. Vigneswara Illesvaram was approached, and he extended full support)
3. Interviewing students belonging to the SC/ST/OBC groups and scholars who are engaged in caste studies. The list of students approached is given in the following table:

Name	Designation/Category/Reason for contact
Rashmi Kumar	PhD Student-Everyday Experience of Caste and Gender
Yatendra	MSC Student-Associated with ODI(ICE)
Vidhath Eslavath	BTech Student(SC)
Laasya	Volunteer in ODI

anonymous	BTech student(SC)
Anant	BTech student(SC)
Dhruv Jain	Btech Student
Anonymous	Btech Student (OBC)
Anonymous	BTech student(SC)

The idea was to understand their lived experiences which would better guide our hypothesis building for the survey as most members of the team did not belong to reserved groups.

Survey design methodology

The approach for the student survey involved the following three steps:

1. Literature research about previous surveys and coverage of caste-based discrimination in IITs.

The following table lists the documents read and analysed:

Title of work	Link to work
Caste-based discrimination in India's higher institutions	https://blog.lukmaanas.com/2023/03/13/topic-caste-based-discrimination-in-indias-higher-institutions/#:~:text=In%20many%20large%20states%2C%20including.%2C%20but%2016%25%20of%20M.
Affirmative action in higher education in India	https://www.nber.org/system/files/working_papers/w17727/w17727.pdf
Summary of "Affirmative action in higher education in India"	https://docs.google.com/document/d/1982U01b4NLWeSaS7OceYX53f5QSTv3hMm1bKDJ3rttk/edit
Caste legacy into the Silicon Valley article by Bloomberg	https://www.bloomberg.com/news/features/2021-03-11/how-big-tech-is-importing-india-s-caste-legacy-to-silicon-valley
Thorat Committee report 2007	
Caste Discrimination in IIT Delhi - A report, lots of ideas, subjectively justified, not numerically	https://thedeathofmeritinindia.wordpress.com/2011/05/01/caste-discrimination-in-iit-delhi-a-report/
Here you can see the students statistics category wise	https://www.iitsystem.ac.in/studentstatistics

Article by Prof. Yashpal Jogdand, faculty HUSS IIT Delhi	https://scroll.in/article/1044277/interview-the-indian-classroom-is-a-site-of-routine-humiliation-for-dalit-students
RTI documents for IITB by APPSC	https://casteoncampus.wordpress.com/iit-bombay/
Caste: the Main Character of Indian food	https://drive.google.com/file/d/10Y-JSIRSISzHeLa8QfYXAAmiN9NqI0FK/view?usp=sharing
Business Research Methods - Book by Bryman and Emma Bell	
Pearson Chi2 test	https://youtu.be/2QeDRsxSF9M
Student t-test	https://youtu.be/pTmLQvMM-1M
Measuring Student's Perception towards Reservation Policy	https://www.researchgate.net/publication/344326726_Measuring_Students_Perception_towards_Reservation_Policy
Found malpractice in research data	http://datacolada.org/98
Largely an opinion piece with lots of ideas	https://blog.lukmaanias.com/2023/03/13/topic-caste-based-discrimination-in-indias-higher-institutions
Previous 3 editions of Inquirer sent by Nikhil	NA
Sai RTI doc	https://drive.google.com/drive/folders/1KlnimSETjHrdWYkPnLpMfFJIYBKC3vh8
Application of Microaggression Theory to Caste-based discrimination in the Indian context	https://www.researchgate.net/publication/320328600_Caste-Based_Discrimination_in_Higher_Education_An_Application_of_Microaggression_Theory_in_Indian_Context
Amaan's research doc: Interesting statistical methods	https://docs.google.com/document/d/1z15qS9doEZNdEzEd1eu7G70UmXqIDFQSVpMnZrTyMXw/edit
Sai's research doc: Mostly research/survey/reports by 3rd parties	https://docs.google.com/document/d/1eOkINi0dlcBetguSMd0tKeJv2ZPFB7cR6nl4qvL09tU/edit
Pew Foundation report on India: chapter 4 is relevant	https://csciitd-my.sharepoint.com/:b:/g/personal/cs1221618_iitd_ac_in/EW4aRxsx8X7hDiYPp2-76YRoBnQSrx_FzFeB_uG4iEzIbUA?e=ijsYva

2. Combined with the student interviews conducted and the literature survey, a list of hypotheses was made to be tested. The list was made keeping in mind the feasibility of the project in terms of timeline, etc. and scope of the project.

S no.	Null Hypothesis	Alternate Hypothesis
1	There is no correlation between the financial condition of one's family and the extent of caste-based discrimination they face.	A person from a financially stable background may face more or less (we have to find out which) discrimination than someone from a financially weaker background.
2	A person's JEE rank/CGPA does not affect the casteism that they face.	People with lower jee ranks/CGPA are more prone to instances of discrimination against them.
3	The discrimination that minority students face is independent of the years they have spent in college	Prevalence of casteism decreases with the number of years spent in college.
4	There is no effect of the language in which a person communicates to the caste-based discrimination they face	People who are fluent in both English and Hindi are faced with fewer instances of casteism than the ones who speak only English or Hindi
5	The social circles of students in the college are unbiased towards the caste of other students	The social circles of students comprise more of students belonging to the same category as them.
6	A person's hometown does not affect the extent of casteism they face.	Students belonging to the rural area are more prone to caste-based discrimination than students from urban areas.
7	Professors and TAs are completely impartial towards the caste of a student during evaluation and their interactions.	They show partiality against the minority students in regards to evaluation and approachability.
8	The minority students on campus are equally prone to mental health issues as the others.	The minority students are more prone to mental health issues and avail counselling services more frequently than others.
9	The process of POR allotment is completely fair towards all categories of students	It is biased towards students belonging to unreserved categories.
10	There is no bias against Minority students with regards to internship and job opportunities	The so-called higher caste students are given preference over reserved castes for internships and jobs.
11	The reservation policy does not affect the discriminatory feelings against the minority students.	Anti-reservation sentiments hugely influence the extent of caste-based reservation.
12	There is no discrimination on the basis of one's dietary habits.	An individual's dietary habit determines the treatment they receive from their peers or others.

After the hypotheses are made, we can form a questionnaire to test our hypotheses. The data obtained from our survey can be used to find the correlation coefficients to gauge the extent of the correlation between two variables and affirm or reject our null hypothesis using various tests.

At this point, we consulted Prof. P. Vigneswara at DMS, who guided us in survey design and introduced concepts of abstract variables and indicators used to measure such variables (For example, job satisfaction and number of free hours in a week)

He also recommended relevant chapters of the book Business Research Methods by Bryman and Emma Bell for designing questions themselves. In particular, chapter 10 was read.

3. Using the above techniques, the first draft of the survey was designed. It was sent for review to the following professors.

All edits in terms of wording and options were incorporated on a rolling basis as we exposed the survey to 4-5 students within the team (This was fake data).

Name	Designation	Remark
Prof. Angelie Multani	Dean, ODI	Reviewed the survey and test-filled herself. Praised efforts.
Prof. Yashpal Jogdand	Faculty Advisor for ICE	Interviewed in this role as Faculty Advisor. He also reviewed the drafts through initial interactions. Final feedback meeting pending.
Prof. P. Vigneswara Illavarasan	Professor of Information Systems at DMS	Assisted in survey design and thoroughly guided about how to make surveys unbiased. The final survey was reviewed by him.

Appendix 1

A number of problems were also identified during the research phase. The list is given below:

- Social acceptability bias
- Misrepresentation / Skewed representation
- Outliers and extremist data points
- Identify types of cognitive biases that creep in. See Elizer's From AI to Zombies

The following solutions were found out and implemented. Although they do not solve every problem, they mitigate the problems to a reasonable extent.

- Stratified random sampling (Rebalancing technique based on prior knowledge of the distribution of a metric)
- Hypothesis testing: p-value and chi 2 test
- Identification of variables and items
- Multi-phasic survey release? (Rejected, multiple reminders were accepted.)
- Randomise your answer options for every respondent so that each option has a fair chance of being picked.

Appendix 2

A number of questions were raised as part of the research phase. We note a few claims and remarks that we intended to find out via the survey - their efficacy and credibility on our campus.

NOTE: The claims may be direct quotes from various articles and previous survey documents listed above.

NOTE: This list is not inclusive of all hypotheses that were included in the survey, nor were all claims that are noted here included. This list was used to motivate more questions and ideas for inquiry.

Claim	Remark
The blatant expressions still exist, but it is increasingly getting replaced by subtle expressions of caste stereotypes – you are asked not about your caste but JEE rank [Joint Entrance Examination for admission to technical undergraduate courses] or other such characteristics to infer who you are, others politely avoid you.	This is a really good indicator to measure active discrimination
If they accept the unfair and unjust nature of the world created by the caste system, they would feel ashamed of being endowed with unearned structural privilege.	

So, being blind to caste is a strategy that most upper castes adopt to protect their worldview.	
The neuroscientific research looking at the brain regions involved in the processing of physical and social/psychological pain, such as the one led by Naomi Eisenberger , confirms William James' observations. This research tells us that [the] same neural machinery underlies the processing of both physical and social/psychological pain.	
Is the claim/belief that there is no discrimination and caste exists only because of [the] policy of reservation, in your understanding, still a dominant one among upper-caste faculty, administration and students at elite institutions like the IITs?	
The largest chunk of caste-based harassment students face is due to the anti-reservation sentiment prevalent on the campus.	Why is this anti-reservation sentiment is prevalent? Is it because of certain caste groups getting better jobs (Find data)? Or is it because upper-caste people just don't want to study alongside "lower caste" groups?
Between 2014 and 2021, 122 Dalit students were driven to commit suicide in Indian premier education institutions.	Why? Compare death by suicide grouped by caste groups. Is it because the mental health systems are not geared towards catering to these groups?
Perception of mental health issues on campus	Have you heard someone ostracised because you got to know they are facing mental health issues? How did you/will you react if you heard a friend is seeking mental health treatment?
	Composition of BSP and what is the distribution of the team. 2023-24 and 2022-23
The counsellors from Dalit backgrounds are not available to Dalit students. Under these conditions, Dalit students often have to seek counselling from an upper-caste counsellor who may be ill-equipped to form a meaningful therapeutic alliance.	Note this composition while reviewing BSW counsellors
	When interacting with caste group students, ask whether faculty just assume their aptitude/intelligence level while interacting. Does knowing the identity of a student alter the way of interaction by faculty members?
Check efficacy and implementation of measures for SC/ST students as given in CoS	