

29th Symposium

“Quality of Engineering Education in Pakistan”

Survey of Recent Graduates' Perspective

Dr. Ahsan Jalal
The Pakistan Academy of Engineering

Quality of Engineering Education

- Definition?
- Stake holders?
- Quantitative Analysis?



- The pursuit of **excellence** through a well designed and **up-to-date curriculum** that prepares students to identify **industrial or national problems** and solve it reproducibly through creative and innovative ideas utilizing **principles of sciences, mathematics and economics**

Quality of Engineering Education

- Stakeholders

- Students
- Employers
- Country



- Quantification

- Student satisfaction
- Employment rate
- Number of foreign students
- Dropout rate
- Perception among employers locally and internationally



Survey Objectives

- Biggest Stakeholder: **Students**
 - Future of the Nation
 - Paying the fees
 - Will replace current human resource
- Determine the opinion of the biggest stakeholder **“Students”**
 - Satisfaction with education material
 - Satisfaction with teachers
 - Their own assessment about employability
 - Reasons for dissatisfaction with the quality of engineering education



Survey

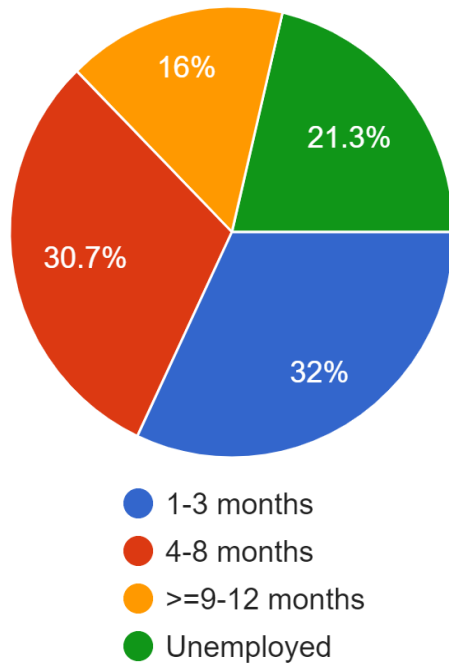
- Population:
 - Engineers graduated in the year 2022 in one of engineering universities
 - Population: 1,500 Graduates
- Sample (Confidence Level= 95%)
 - 5% of Population, 75 Graduates
 - Randomly selected from all engineering disciplines
 - Questionnaire



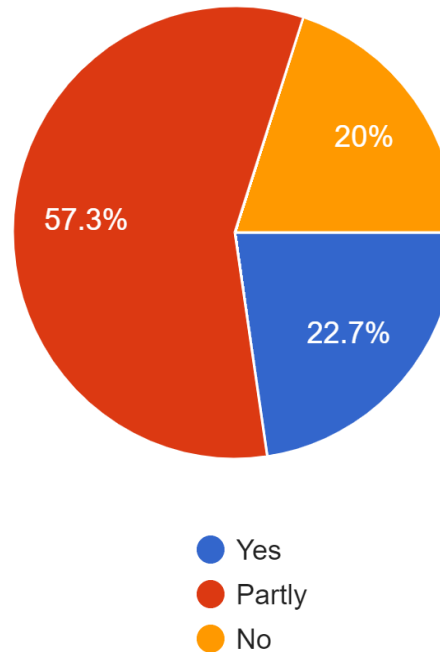
Survey Results

- **EMPLOYMENT**
- Unemployment Rate: **21.3%**
 - PIDE data= 23.5%* (2020-21)

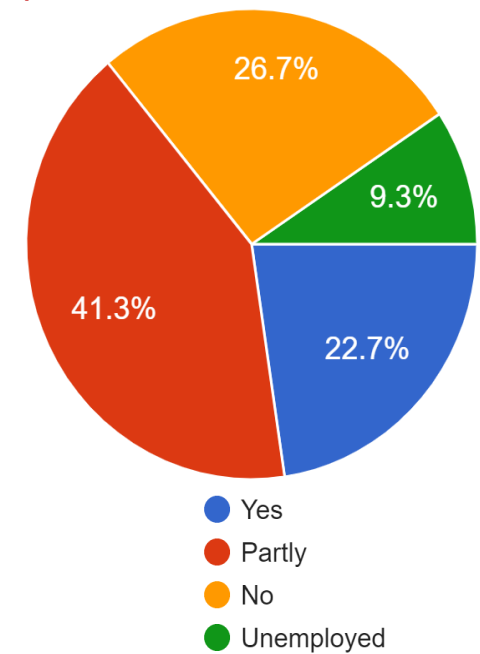
Waiting time for the employment?



Did university make them employable?

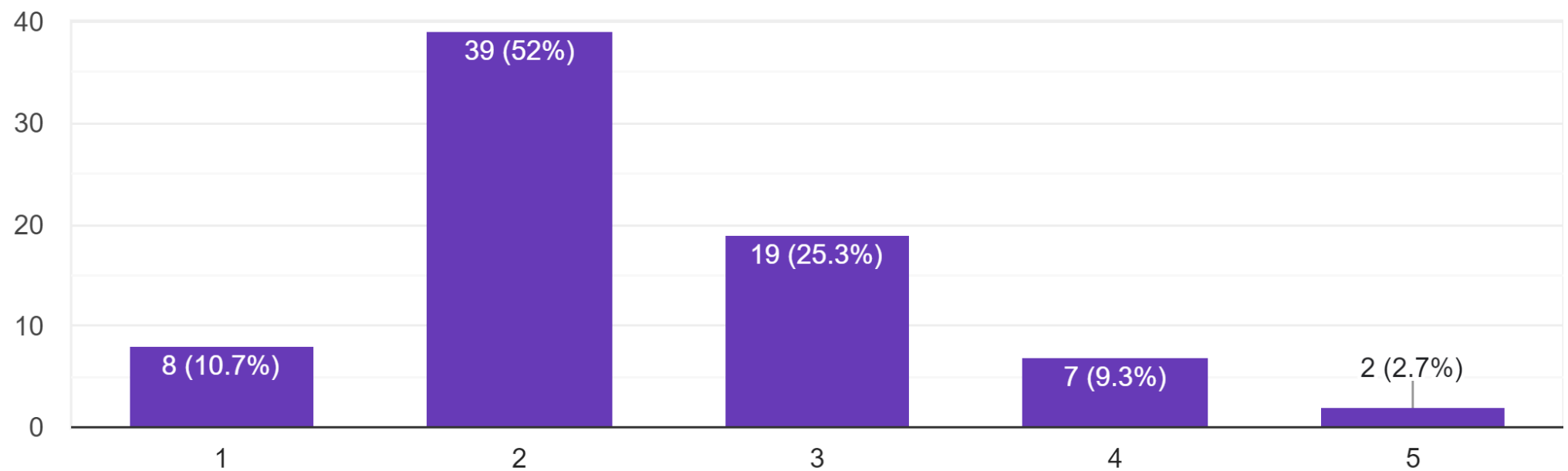


Feel prepared to satisfy the job requirements?



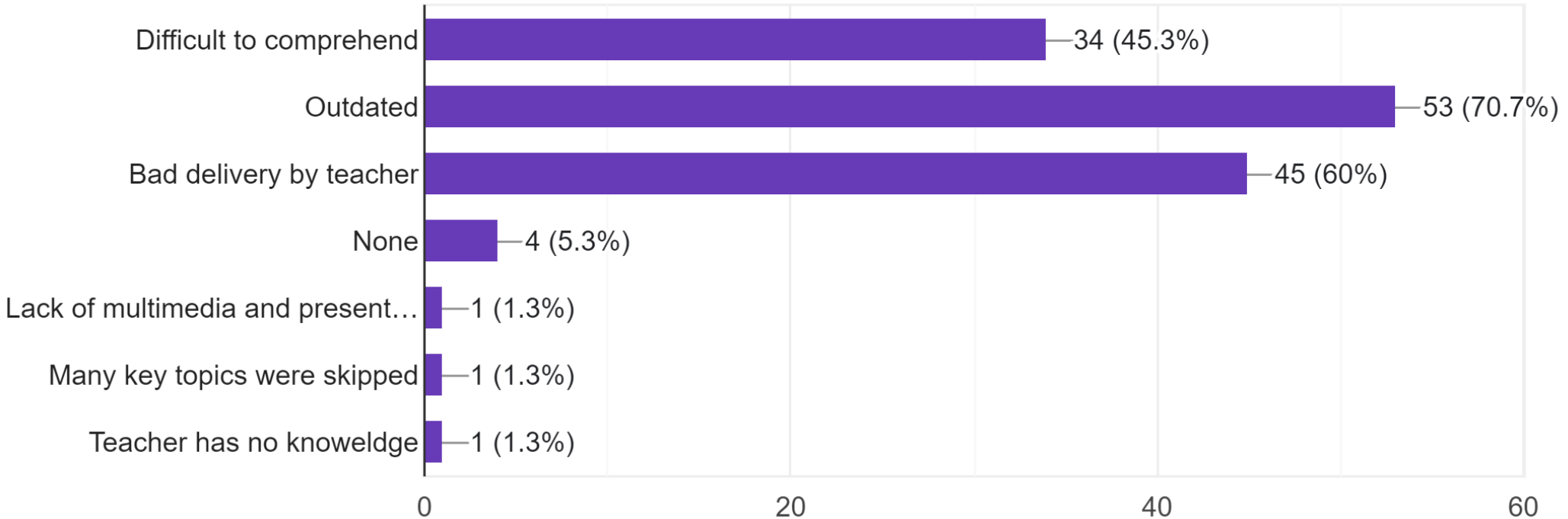
Survey Results

- Satisfaction with the Course Contents



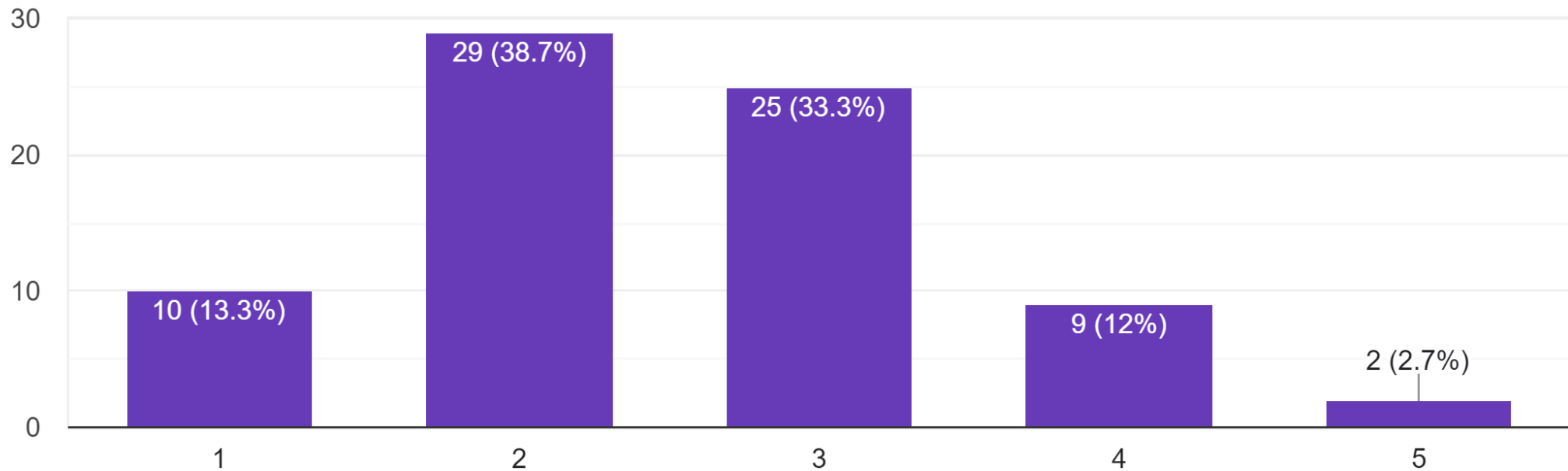
Survey Results

- Satisfaction with the Course Contents



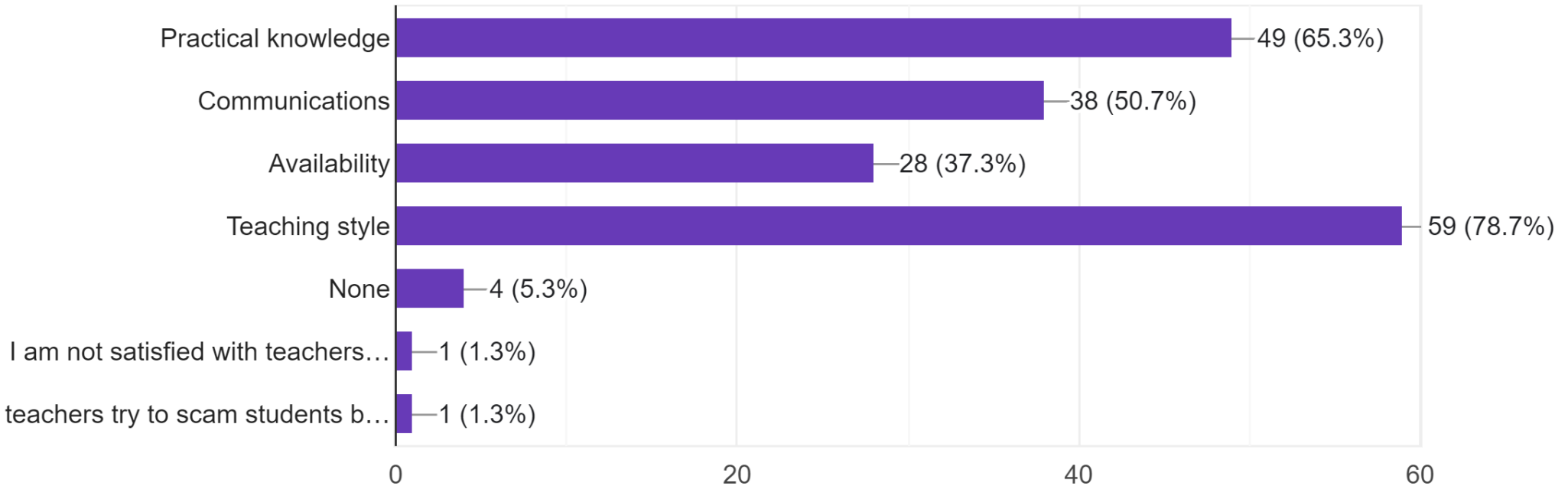
Survey Results

- Satisfaction with Teachers



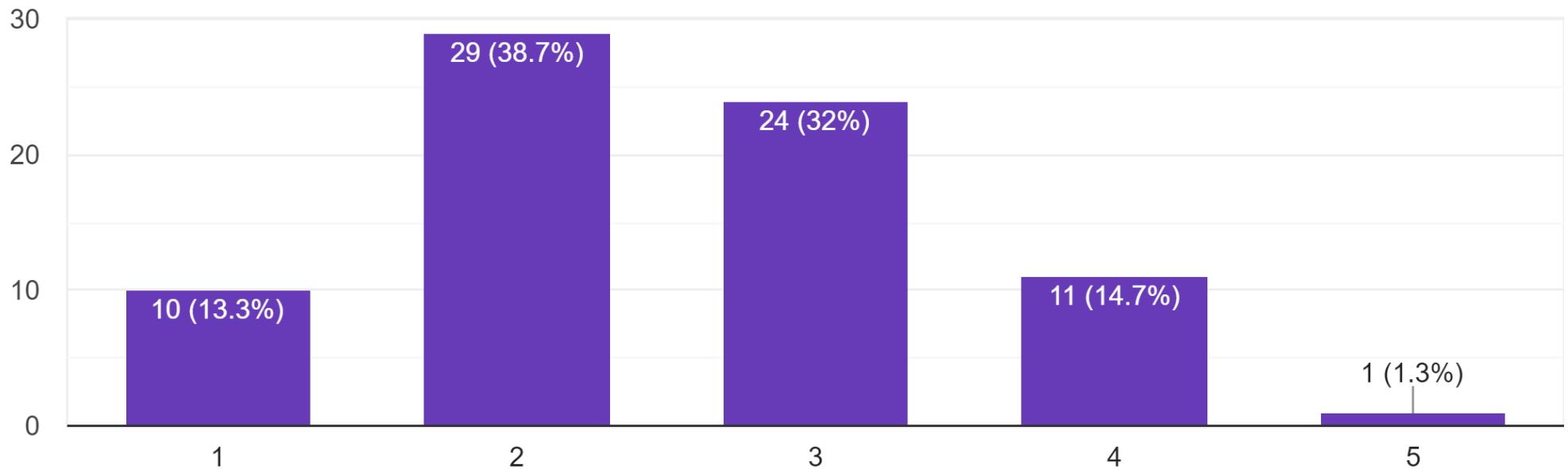
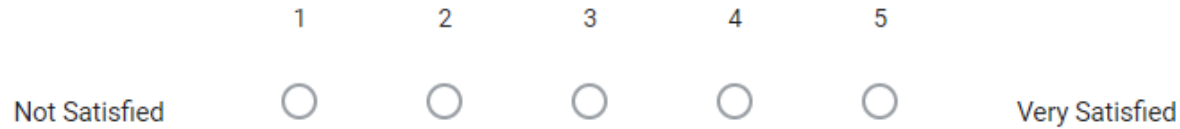
Survey Results

- Satisfaction with Teachers



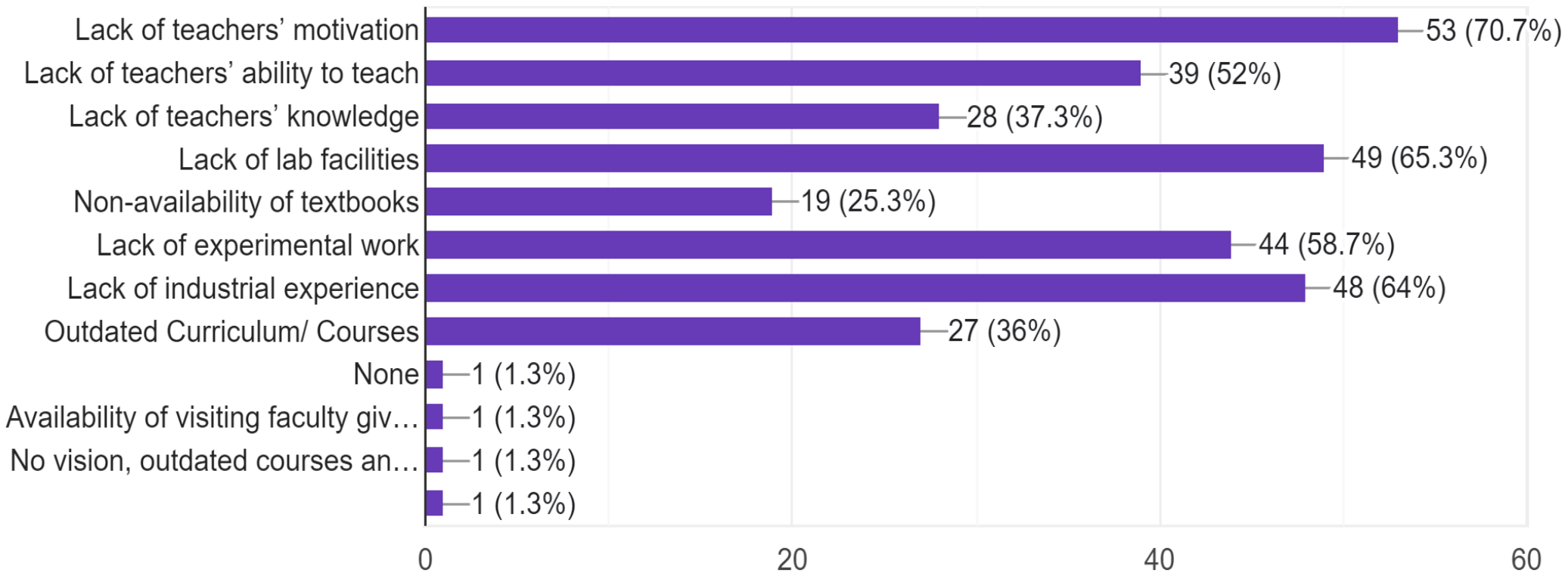
Survey Results

- Satisfaction with the Quality of Engineering Education in Pakistan



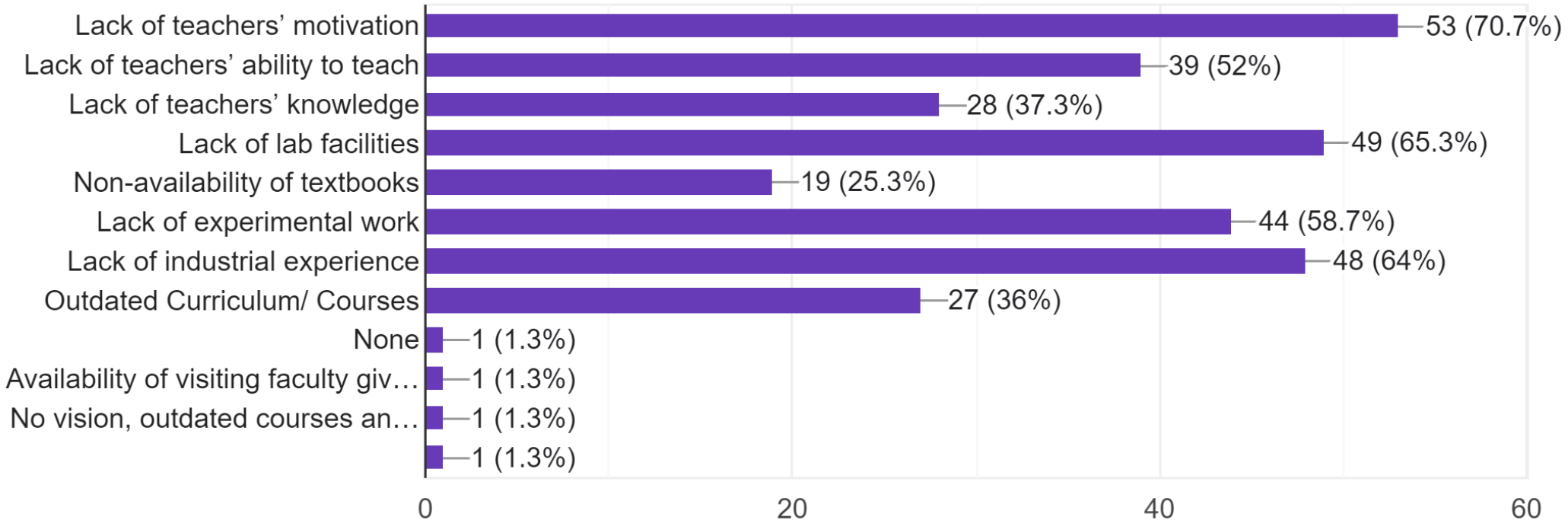
Survey Results

- Satisfaction with Quality of Engineering Education in Pakistan



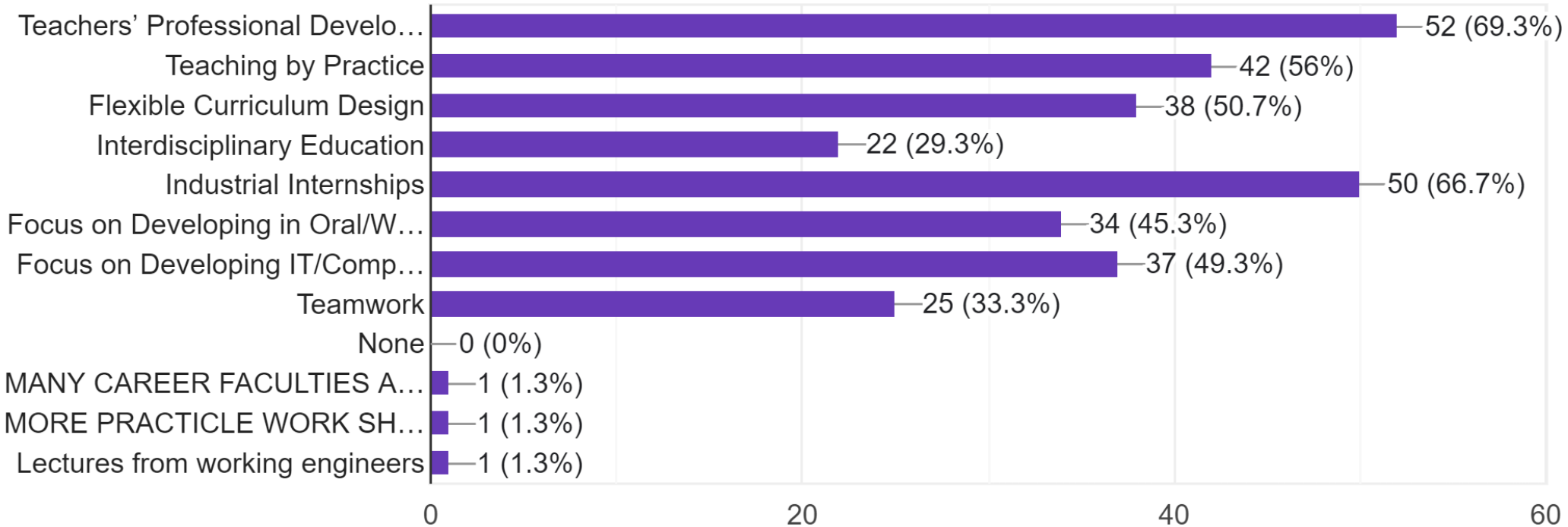
Survey Results

Barriers in the Quality of Engineering Education in Pakistan



Survey Results

- Suggestions to Improve the Quality of Engineering Education in Pakistan



Conclusions

- Students are generally **dissatisfied** with the Quality of Engineering Education in Pakistan because of
 - Outdated curriculum
 - Teachers' inability to teach effectively
 - Unable to grasp concept to apply practically
 - Unable to fill the gap between academia and industry



Recommendations

- Training of teachers to improve their **teaching style and methods**
- Updating the curriculum according to **modern needs**
- Arrangement of a total **1-year paid industrial internships** during the course work
- Arrangement of workshops to train students to develop **soft skills**
- Arrangement of Experienced Speakers form Industries to bridge the **gap between academic work and industrial activities.**

