Causal Inference - Gamification Case

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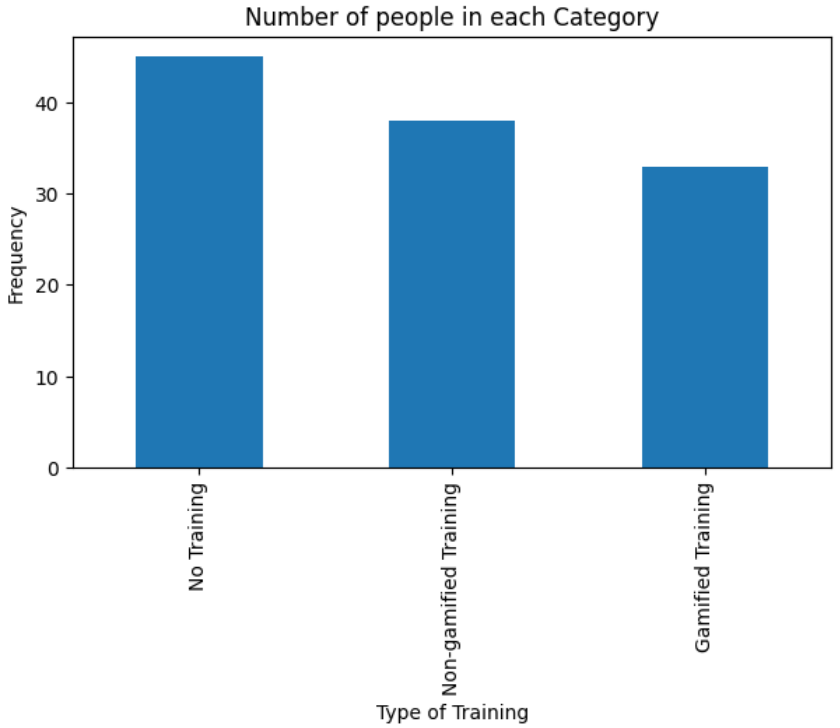
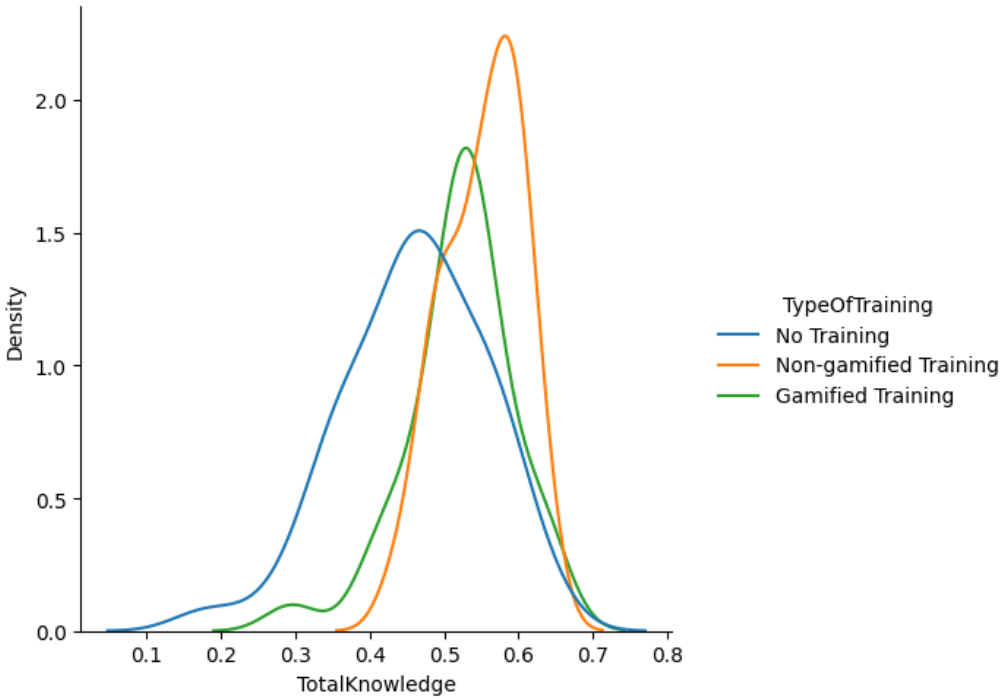
FREQUENCY DISTRIBUTION

- At first glance, we see distribution of people within the three categories
- The distribution seems to be fairly balanced



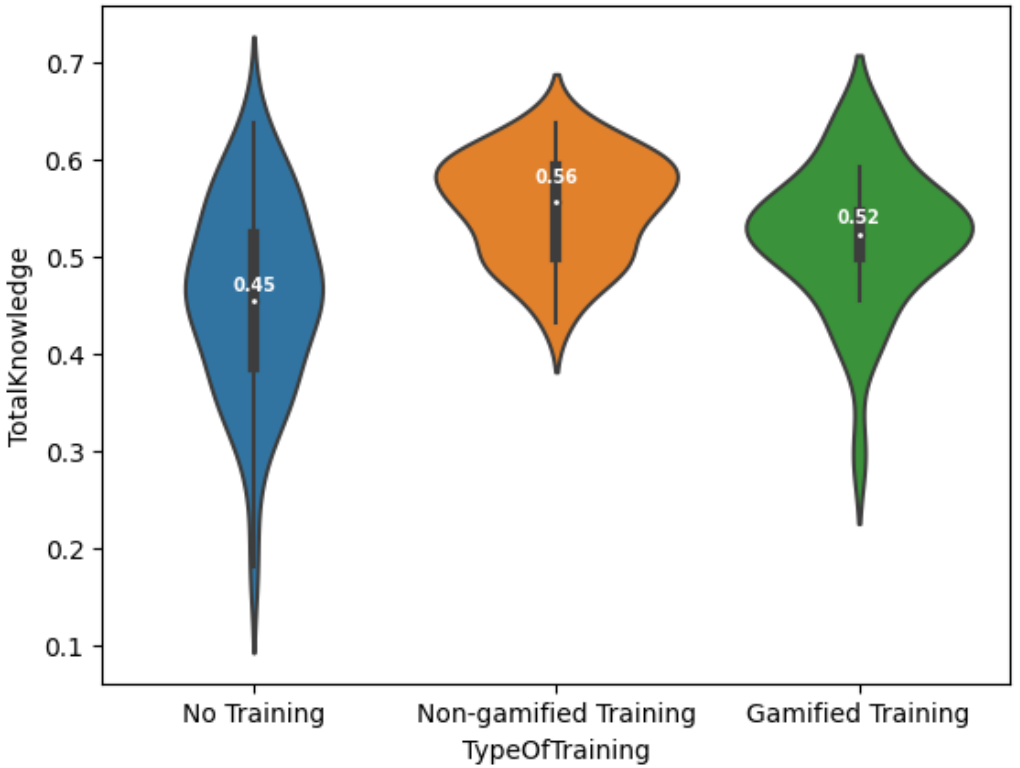
NORMAL DISTRIBUTION



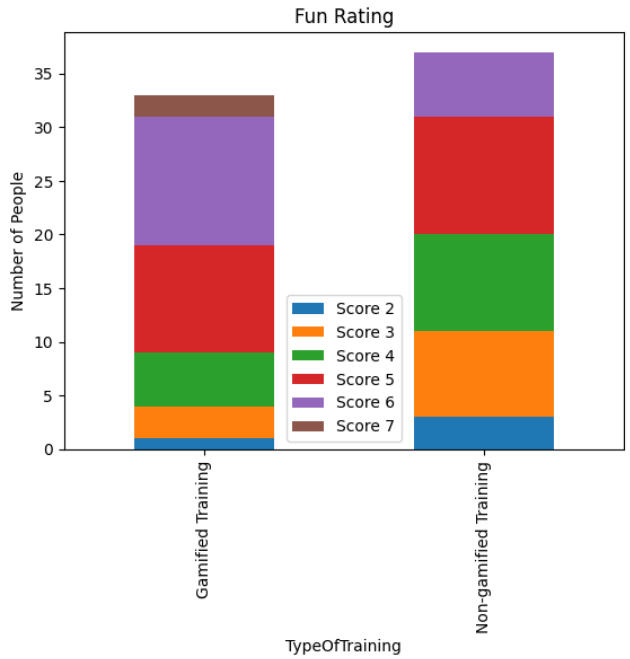
- Amongst the three categories, mean 'TotalKnowledge' is the highest for Non-Gamified training.
- Low standard deviation for the Non-Gamified training category also highlights low overall variation in TotalKnowdge amongst the people sampled.
- People sampled under 'No Training' category had the lowest mean 'TotalKnowledge' score

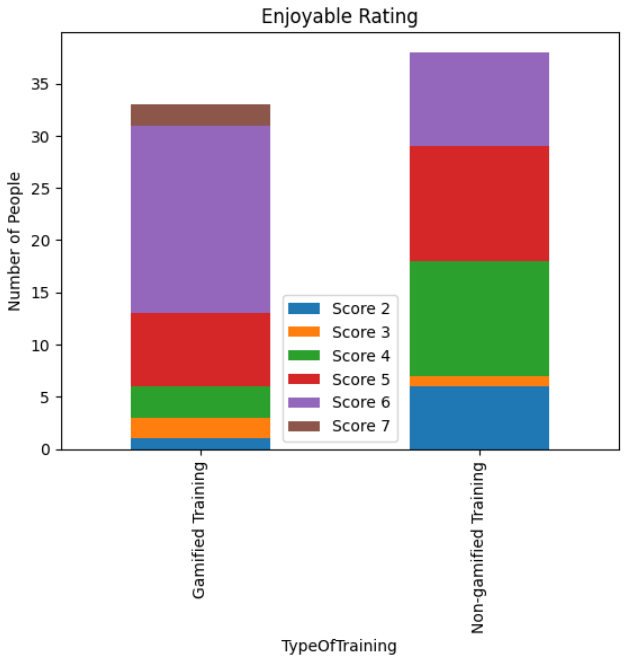
VIOLIN PLOTS

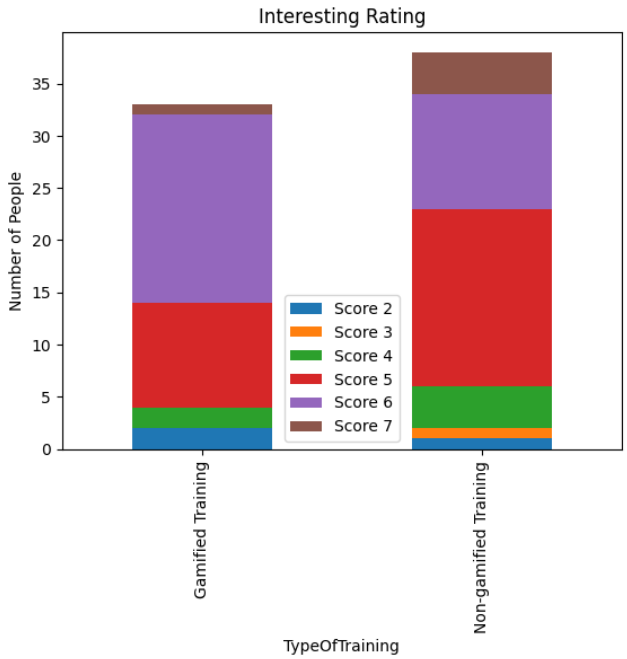
- Non-Gamified Training category has the highest median score with high concentration around the median (depicted by the width)
- Category 'No Training' shows high range of score variation.
- Category 'Gamified Training' performs somewhere between these two categories.
- Almost everyone in Non-Gamified category (except a few exceptions) scored more than the median score of 'No Training' category
- Just looking at these plots, the overall performance can be ranked as below (top to bottom):
    - Non-Gamified Training
    - Gamified Training
    - No Training



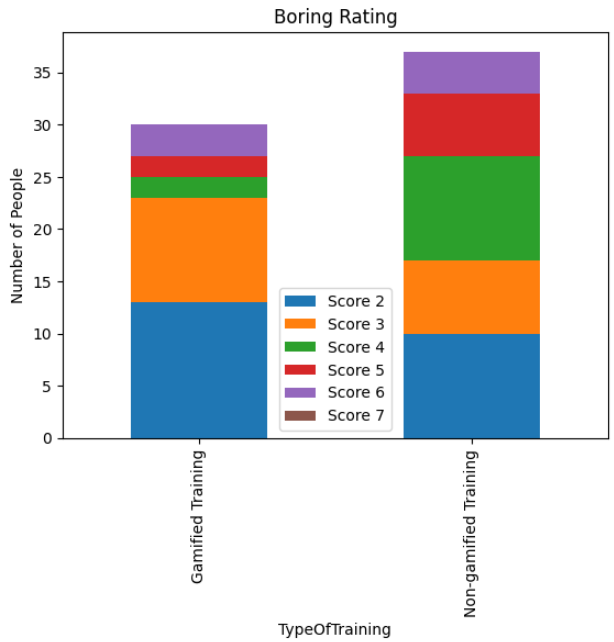
STACKED BAR PLOTS (1)

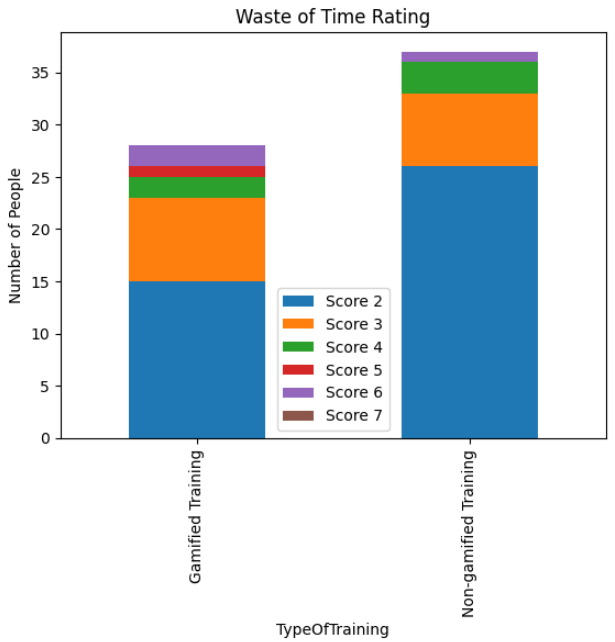


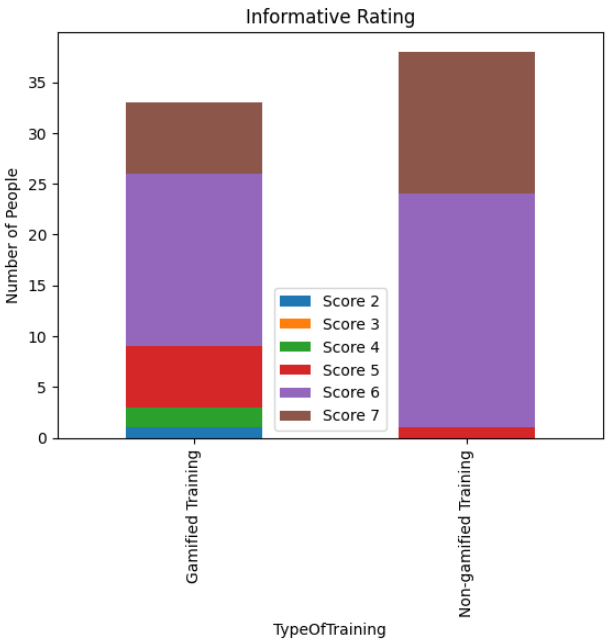




STACKED BAR PLOTS (2)







TypeOfTraining	Fun	Enjoyable	Interesting	Informativ	WasteofTime	Boring
Gamified Training	5.060606	5.363636	5.363636	5.787879	2.821429	3.066667
Non-gamified Training	4.243243	4.421053	5.263158	6.342105	2.459459	3.648649

- Shown on the top are different '**weighted average scores**' of people in the 'gamified' v/s 'non-gamified' training
- 'Gamified training' was reviewed better by people on the following ratings:
  - Fun
  - Enjoyable
  - Interesting
- 'Non gamified training' fared better in terms of
  - Informative rating
- 'Non gamified training' is rated more boring, while 'Gamified training' is rated more waste of time