

# Analyzing Post-Course Performance & Attitudes

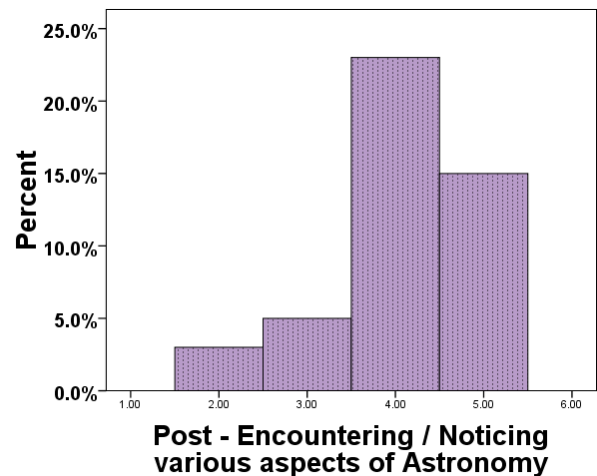
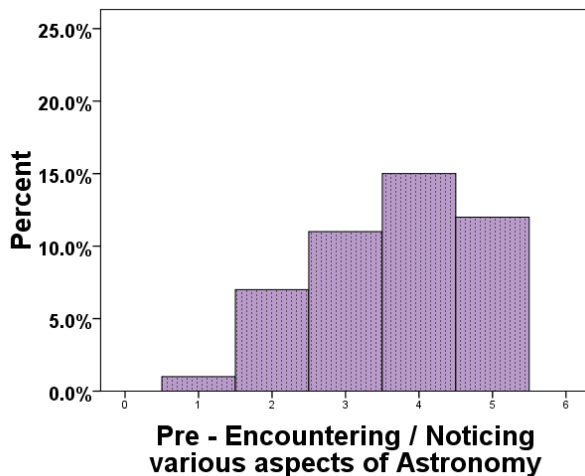
## Change in Attitudes during course:

### *Importance of Astronomy:*

- Factor analysis reveals that the Sharing/Enjoyment factors which describe the Pre-course data are not appropriate to the Post-course data
- No significant changes in most individual items of “I like/would enjoy...” questions, or in mean of items:
  - Marginally significant ( $p = 0.07$ ) decrease in appreciation of astronomy-related book or equipment as a present (Change = 0.3)

### *How often students notice / encounter Astronomy:*

- Significant (positive) changes were found in how often students reported encountering “aspects of astronomy” ( $p = 0.068$ ), encountering items/technology originally developed for studying astronomy ( $p = 0.01$ ) and using general skills that astronomers apply in their research to make decisions in their life outside of class ( $p = 0.034$ ), as well as in the median of all similar items ( $p = 0.033$ ; shown – x-axis is in order of increasing median frequency)



### Relationship of Incoming Attitudes to Performance in Course:

- No significant relationship to performance gains on SPCI, or course grade
- Marginally significant trend ( $p = 0.068$ ): students scoring highly on the Pre-enjoyment factor obtained a higher course grade.
- Students who scored highly on the Pre-sharing factor had greater gains in content as measured by the SPCI ( $p = 0.033$ ; shown)

