A Mixed Methods Analysis Approach to Examine Teachers’ Supportiveness and Effects on Math Anxiety Among Northern New Mexico STEM and NonSTEM Students

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Data Collection & Methods

Table 1 reflects the Sample size. For Math 155 Trigonometry and Pre-Calculus (blue) there was 25 students enrolled in the course with a survey response of 20 (47.62%). For Math 130 Intermediate Algebra (green) there was 9 students enrolled in the class with a survey response of 5 (11.90%), which is the normal number of students to regularly attend the class per instructors information. For Math 145 Probability and Statistics (gray) there was 22 students enrolled with a survey response of 17 (40.48%).

Data Analysis & Findings

In Table 2 Dependent Variables above the measures of central tendency are:

- Taking an examination in a math course- the median with 8 students is “not at all” or “moderately”
- Being given a pop quiz in a math class- the median with 8 students is “very much”
- Being given a homework assignment of many difficult problems which is due the next class meeting- the median with 7 students is “moderately” or “quite a bit”
- Overall, how anxious are you about math?- the median with 8 students is “not at all” or “moderately”
- Watching a teacher work an algebraic equation on the blackboard- the median with 6 students is “moderately”
- Starting a new chapter in a math book- the median with 7 students is “somewhat anxious”
- Listening to another student explain a math formula- the median with 4 students is “very much”
- Having to use the tables in the back of the book- the median with 8 students is “moderately”

Table 3. Independent Predictions of Math Anxiety Answered: 42 Skipped: 0

In Table 3 above the frequency distribution for perceived supportiveness is displayed, showing the weighted average. For each variable the frequency distributions are as follows:

- My friends are: mean 0.607, median 8 (19.51%) “somewhat supportive”, mode 17 (41.46%) “very supportive”, range 17-2=15, there are no outliers, there is 1 missing/skipped student responses for this variable
- My college is: mean 0.607, median 11 (26.19%) “somewhat or extremely supportive”, mode 19 (45.24%) “very supportive”, range 19-1=18, 0 “somewhat supportive” is an outliers for this variable
- My teachers are: mean 0.607, median 6 (14.29%) “somewhat or extremely supportive”, mode 21 (57.14%) “very supportive”, range 24-1=23, 0 “not at all supportive” is an outlier for this variable
- My family are: mean 0.607, median 3 (7.14%) “somewhat supportive”, mode 22 (52.38%) “extremely supportive”, range 22-2=20, 0 “not at all supportive” is an outlier for this variable
- My parents are: mean 0.607, median 5 (11.90%) “somewhat supportive”, mode 26 (61.90%) “extremely supportive”, range 26-3=23, 0 “not at all supportive” is an outlier for this variable

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