

College of Agriculture

Utah State University

**Department of Agricultural Systems Technology and Education**

# Curriculum Priorities

(Q-Sort)

Fall 2008

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## Introduction

Members of the Utah State University College of Agriculture (COA) administration and faculty met on September 5, 2008 for the purpose of prioritizing the college curriculum agenda. The number of faculty members from each department is listed in Table 1.1 below. The departments represented were: Animal, Dairy and Veterinary Sciences (ADVS); Applied Economics (APEC); Agricultural Systems Technology and Education (ASTE); Nutrition and Food Sciences (NFS); and Plants, Soils, and Climate (PSC).

Table 1.1 – Administration & Faculty Present at the COA Curriculum Priorities Retreat

| Department    | Frequency | Percent |
|---------------|-----------|---------|
| ADVS          | 15        | 29.9    |
| APEC          | 9         | 13.4    |
| ASTE          | 8         | 11.9    |
| NFS           | 13        | 19.4    |
| PSC           | 15        | 22.4    |
| Not Indicated | 2         | 3.0     |
| Total         | 67        | 100.0   |

At a 2007 retreat, College of Agriculture faculty determined items ( $N = 32$ ) to be included in the curriculum (Table 1.2). The 32 curriculum statements were then prioritized at the 2008 retreat utilizing a Q-sort methodology (Stephenson, 1953). The statements were written on cards and disseminated to each of the faculty present. The faculty then prioritized the statements within a standard normal distribution (Q-sort) along seven categories (Category A = Most Important ... Category G = Least Important). The faculty recorded the categories of each statement and all of the records were collected. Each record was then entered into SPSS 15.0 for Windows. Each statement in category A was given the value of “7”, each statement in category B was given a value of “6”, and so on until all statements were assigned the proper weights. Following are the distribution tables (Tables 2.1 – 2.32) for each of the 32 curriculum statements.

## College of Agriculture Curriculum Priorities

Table 1.2 – Curricular Statements Developed by COA Faculty.

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- Q1. Customize curriculum for individual student interests
- Q2. Incorporate “working” student teams into course objectives
- Q3. Increase student awareness of the global ecosystem
- Q4. Expand off-campus programs
- Q5. Teach critical thinking, data analysis, and information gathering
- Q6. Remove under performer teachers from the classroom
- Q7. Improve student oral, written, and electronic communication skills
- Q8. Expand academic advising
- Q9. Better integrate natural resources and agriculture
- Q10. Focus on sustainable resource practices
- Q11. Provide a firm foundation in basic science skills
- Q12. Incorporate integrated learning into capstone experiences
- Q13. Hire and reward faculty for teaching excellence
- Q14. Utilize industry-based needs and issues to guide curriculum
- Q15. Integrate disciplines across college curriculum
- Q16. More awareness of energy use and its relationship to global warming
- Q17. Expand technology in classrooms
- Q18. Implement service learning expectations for students
- Q19. Expand undergraduate research internship opportunities
- Q20. Teach basic academic skills (math, writing, computer)
- Q21. Develop student / business / industry interactive programs
- Q22. Teach cutting-edge technology
- Q23. Lead students through project management and program development
- Q24. Invest in teacher development
- Q25. Implement short term industry externships for faculty
- Q26. Develop international experiences for students
- Q27. Teach team building and leadership development
- Q28. Increase recruitment of urban and suburban students
- Q29. Improve technology for 24 / 7 learning (outside the classroom)
- Q30. Teach ethics, including professionalism
- Q31. More synthesis/problem solving - project-based curriculum (outside the textbook)
- Q32. Expand hands-on laboratories experiences

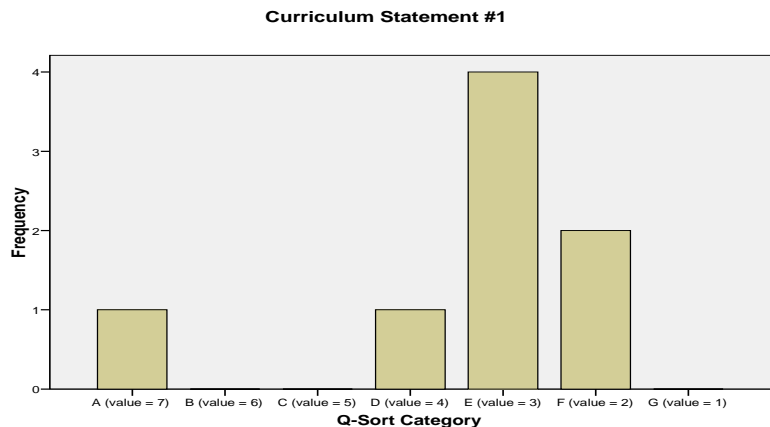
## **Department of Agricultural Systems Technology and Education Report**

The overall results of the responses of COA faculty can be found in a separate report. The remainder of this report summarizes the responses of the faculty from the Department of Agricultural Systems Technology and Education ( $n = 8$ )

## Q-Sort Statement Demographic Information of the 32 Curricular Statements

Table 2.1 – Q-sort Priorities of Statement #1: *Customize curriculum for individual student interests.*

| Category | Frequency | Percent |
|----------|-----------|---------|
| A        | 1         | 12.5    |
| B        | 0         | 0.0     |
| C        | 0         | 0.0     |
| D        | 1         | 12.5    |
| E        | 4         | 50.0    |
| F        | 2         | 25.0    |
| G        | 0         | 0.0     |
| Total    | 8         | 100.0   |



Mean = 3.38  
 Standard Deviation = 1.60  
 Median = 3.00

\*Skewness = -1.982  
 \*\*Kurtosis = 4.567

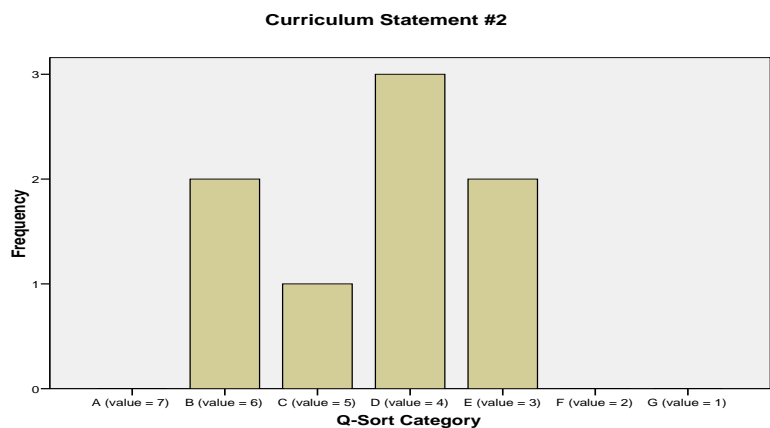
Note: A = “Most Important”, G = “Least Important”.

\* Skewness: The degree of asymmetry of the distribution (Howell, 2006).

\*\* Kurtosis: The degree of peakedness or flatness of the distribution (Howell, 2006).

Table 2.2 – Q-sort Priorities of Statement #2: *Incorporate “working” student teams into course objectives.*

| Category | Frequency | Percent |
|----------|-----------|---------|
| A        | 0         | 0.0     |
| B        | 2         | 25.0    |
| C        | 1         | 12.5    |
| D        | 3         | 37.5    |
| E        | 2         | 25.0    |
| F        | 0         | 0.0     |
| G        | 0         | 0.0     |
| Total    | 8         | 100.0   |



Mean = 4.38  
 Standard Deviation = 1.19  
 Median = 4.00

\*Skewness = -.394  
 \*\*Kurtosis = -1.229

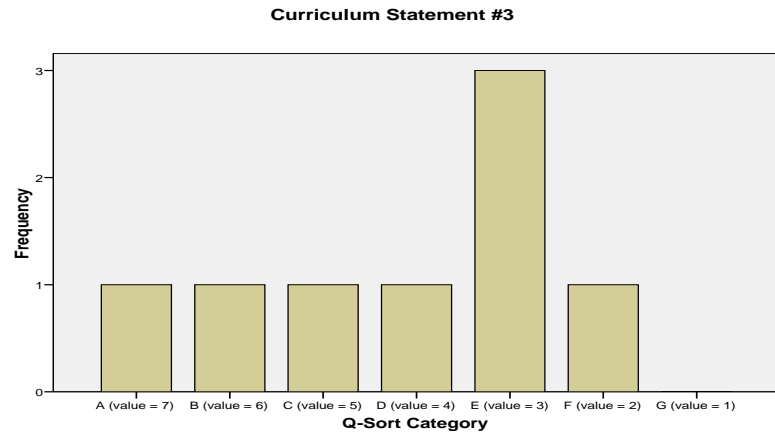
Note: A = “Most Important”, G = “Least Important”.

\* Skewness: The degree of asymmetry of the distribution (Howell, 2006).

\*\* Kurtosis: The degree of peakedness or flatness of the distribution (Howell, 2006).

Table 2.3 – Q-sort Priorities of Statement #3: *Increase student awareness of the global ecosystem.*

| Category | Frequency | Percent |
|----------|-----------|---------|
| A        | 1         | 12.5    |
| B        | 1         | 12.5    |
| C        | 1         | 12.5    |
| D        | 1         | 12.5    |
| E        | 3         | 37.5    |
| F        | 1         | 12.5    |
| G        | 0         | 0.0     |
| Total    | 8         | 100.0   |



Mean = 4.13  
 Standard Deviation = 1.73  
 Median = 3.50

\*Skewness = -.635  
 \*\*Kurtosis = -.796

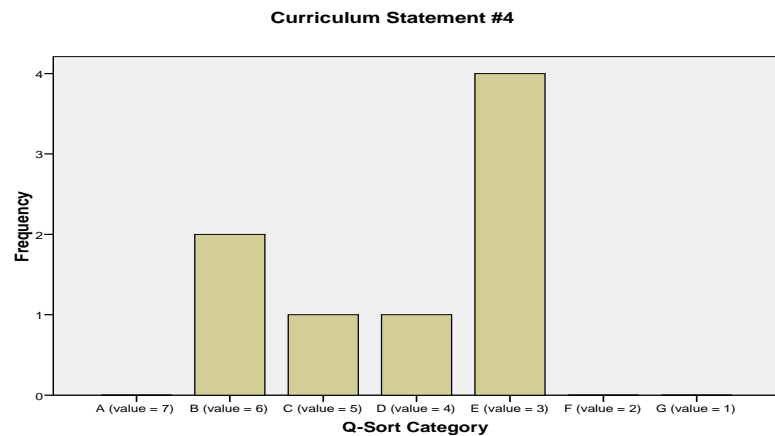
Note: A = “Most Important”, G = “Least Important”.

\* Skewness: The degree of asymmetry of the distribution (Howell, 2006).

\*\* Kurtosis: The degree of peakedness or flatness of the distribution (Howell, 2006).

Table 2.4 – Q-sort Priorities of Statement #4: *Expand off-campus programs.*

| Category | Frequency | Percent |
|----------|-----------|---------|
| A        | 0         | 0.0     |
| B        | 2         | 25.0    |
| C        | 1         | 12.5    |
| D        | 1         | 12.5    |
| E        | 4         | 50.0    |
| F        | 0         | 0.0     |
| G        | 0         | 0.0     |
| Total    | 8         | 100.0   |



Mean = 4.13  
 Standard Deviation = 1.36  
 Median = 3.50

\*Skewness = -.623  
 \*\*Kurtosis = -1.686

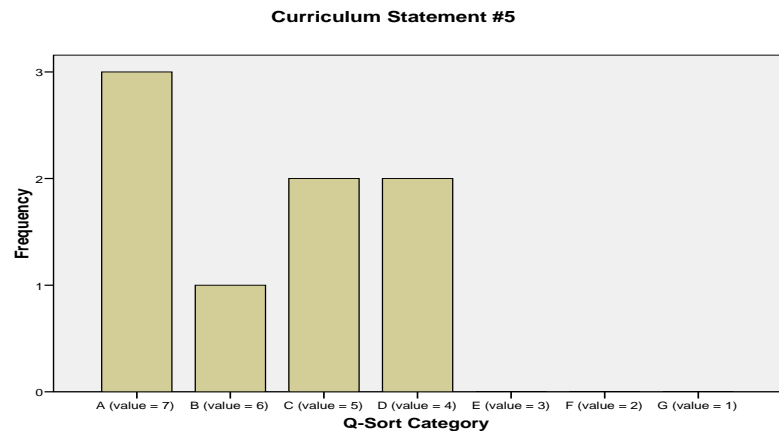
Note: A = “Most Important”, G = “Least Important”.

\* Skewness: The degree of asymmetry of the distribution (Howell, 2006).

\*\* Kurtosis: The degree of peakedness or flatness of the distribution (Howell, 2006).

Table 2.5 – Q-sort Priorities of Statement #5: *Teach critical thinking, data analysis, and information gathering.*

| Category | Frequency | Percent |
|----------|-----------|---------|
| A        | 3         | 37.5    |
| B        | 1         | 12.5    |
| C        | 2         | 25.0    |
| D        | 2         | 25.0    |
| E        | 0         | 0.0     |
| F        | 0         | 0.0     |
| G        | 0         | 0.0     |
| Total    | 8         | 100.0   |



Mean = 5.63  
 Standard Deviation = 1.30  
 Median = 5.50

\*Skewness = .105  
 \*\*Kurtosis = -1.922

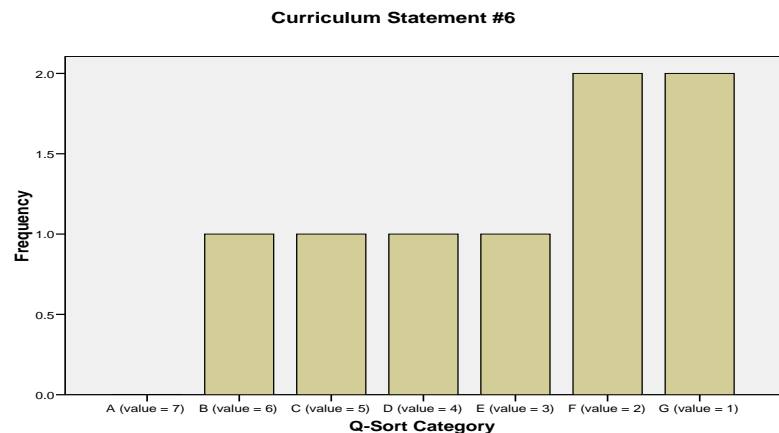
Note: A = “Most Important”, G = “Least Important”.

\* Skewness: The degree of asymmetry of the distribution (Howell, 2006).

\*\* Kurtosis: The degree of peakedness or flatness of the distribution (Howell, 2006).

Table 2.6 – Q-sort Priorities of Statement #6: *Remove under performer teachers from the classroom.*

| Category | Frequency | Percent |
|----------|-----------|---------|
| A        | 0         | 0.0     |
| B        | 1         | 12.5    |
| C        | 1         | 12.5    |
| D        | 1         | 12.5    |
| E        | 1         | 12.5    |
| F        | 2         | 25.0    |
| G        | 2         | 25.0    |
| Total    | 8         | 100.0   |



Mean = 3.00  
 Standard Deviation = 1.85  
 Median = 3.00

\*Skewness = -.540  
 \*\*Kurtosis = -1.050

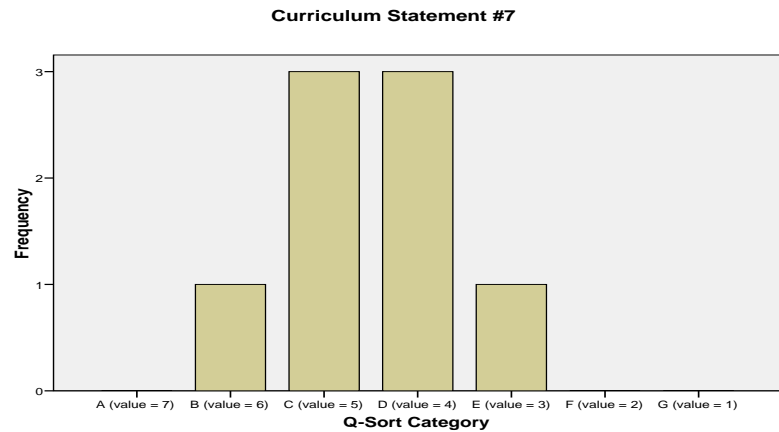
Note: A = “Most Important”, G = “Least Important”.

\* Skewness: The degree of asymmetry of the distribution (Howell, 2006).

\*\* Kurtosis: The degree of peakedness or flatness of the distribution (Howell, 2006).

Table 2.7 – Q-sort Priorities of Statement #7: *Improve student oral, written, and electronic communication skills.*

| Category | Frequency | Percent |
|----------|-----------|---------|
| A        | 0         | 0.0     |
| B        | 1         | 12.5    |
| C        | 3         | 37.5    |
| D        | 3         | 37.5    |
| E        | 1         | 12.5    |
| F        | 0         | 0.0     |
| G        | 0         | 0.0     |
| Total    | 8         | 100.0   |



Mean = 4.50  
 Standard Deviation = 0.93  
 Median = 4.50

\*Skewness = .000  
 \*\*Kurtosis = .000

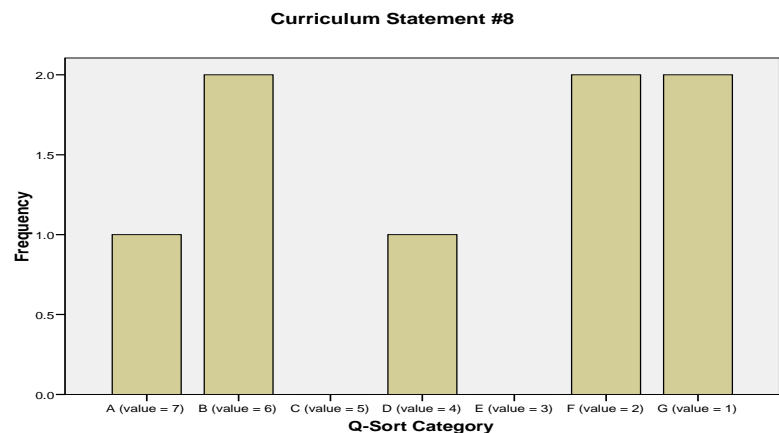
Note: A = “Most Important”, G = “Least Important”.

\* Skewness: The degree of asymmetry of the distribution (Howell, 2006).

\*\* Kurtosis: The degree of peakedness or flatness of the distribution (Howell, 2006).

Table 2.8 – Q-sort Priorities of Statement #8: *Expand academic advising.*

| Category | Frequency | Percent |
|----------|-----------|---------|
| A        | 1         | 12.5    |
| B        | 2         | 25.0    |
| C        | 0         | 0.0     |
| D        | 1         | 12.5    |
| E        | 0         | 0.0     |
| F        | 2         | 25.0    |
| G        | 2         | 25.0    |
| Total    | 8         | 100.0   |



Mean = 3.63  
 Standard Deviation = 2.45  
 Median = 3.00

\*Skewness = -.267  
 \*\*Kurtosis = -2.004

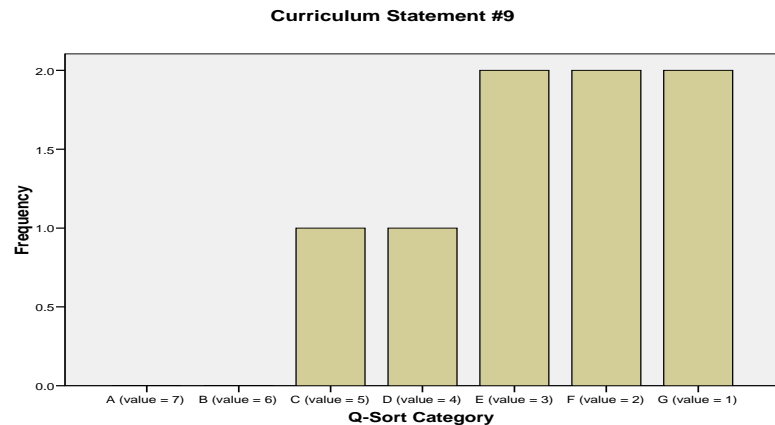
Note: A = “Most Important”, G = “Least Important”.

\* Skewness: The degree of asymmetry of the distribution (Howell, 2006).

\*\* Kurtosis: The degree of peakedness or flatness of the distribution (Howell, 2006).

Table 2.9 – Q-sort Priorities of Statement #9: *Better integrate natural resources and agriculture.*

| Category | Frequency | Percent |
|----------|-----------|---------|
| A        | 0         | 0.0     |
| B        | 0         | 0.0     |
| C        | 1         | 12.5    |
| D        | 1         | 12.5    |
| E        | 2         | 25.0    |
| F        | 2         | 25.0    |
| G        | 2         | 25.0    |
| Total    | 8         | 100.0   |



Mean = 2.63  
 Standard Deviation = 1.41  
 Median = 2.50

\*Skewness = -.480  
 \*\*Kurtosis = -.564

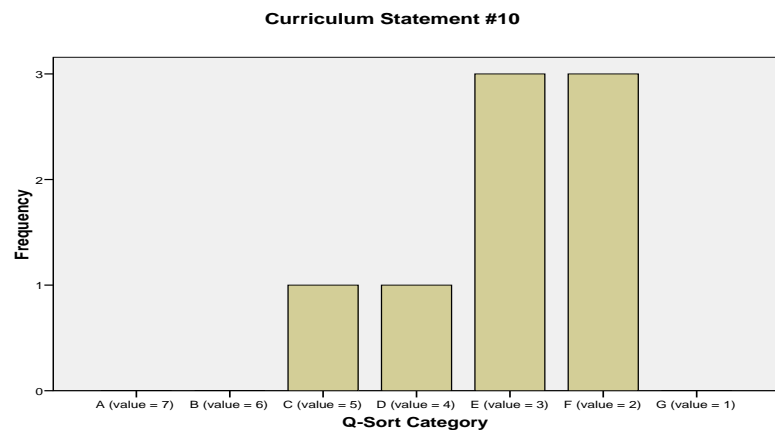
Note: A = "Most Important", G = "Least Important".

\* Skewness: The degree of asymmetry of the distribution (Howell, 2006).

\*\* Kurtosis: The degree of peakedness or flatness of the distribution (Howell, 2006).

Table 2.10 – Q-sort Priorities of Statement #10: *Focus on sustainable resource practices.*

| Category | Frequency | Percent |
|----------|-----------|---------|
| A        | 0         | 0.0     |
| B        | 0         | 0.0     |
| C        | 1         | 12.5    |
| D        | 1         | 12.5    |
| E        | 3         | 37.5    |
| F        | 3         | 37.5    |
| G        | 0         | 0.0     |
| Total    | 8         | 100.0   |



Mean = 3.00  
 Standard Deviation = 1.07  
 Median = 3.00

\*Skewness = -.935  
 \*\*Kurtosis = .350

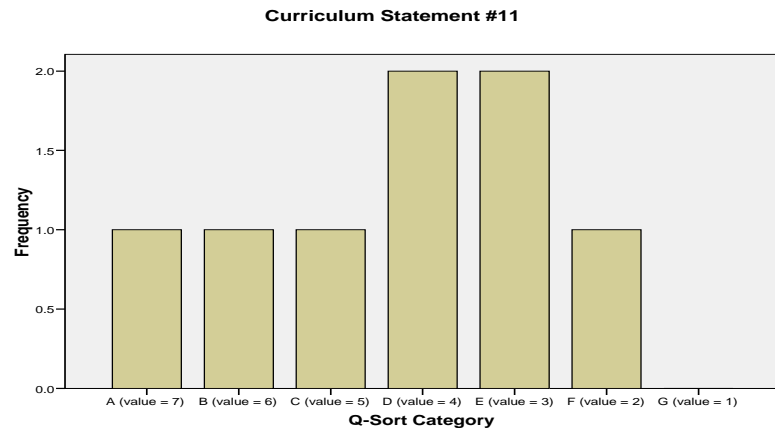
Note: A = "Most Important", G = "Least Important".

\* Skewness: The degree of asymmetry of the distribution (Howell, 2006).

\*\* Kurtosis: The degree of peakedness or flatness of the distribution (Howell, 2006).

Table 2.11 – Q-sort Priorities of Statement #11: *Provide a firm foundation in basic science skills.*

| Category | Frequency | Percent |
|----------|-----------|---------|
| A        | 1         | 12.5    |
| B        | 1         | 12.5    |
| C        | 1         | 12.5    |
| D        | 2         | 25.0    |
| E        | 2         | 25.0    |
| F        | 1         | 12.5    |
| G        | 0         | 0.0     |
| Total    | 8         | 100.0   |



Mean = 4.25  
 Standard Deviation = 1.67  
 Median = 4.00

\*Skewness = -.461  
 \*\*Kurtosis = -.596

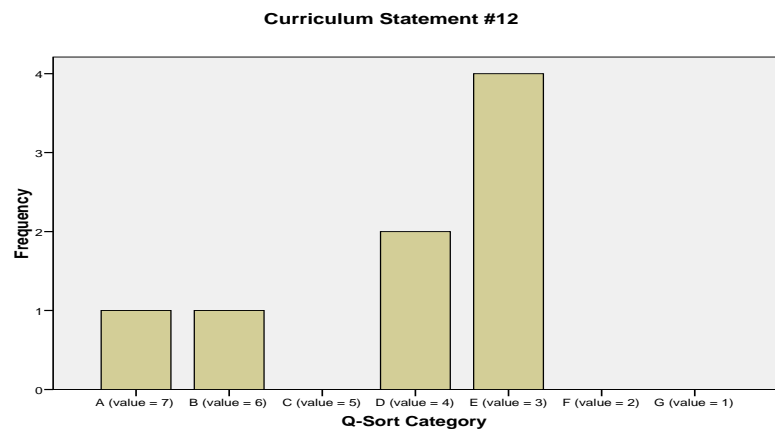
Note: A = “Most Important”, G = “Least Important”.

\* Skewness: The degree of asymmetry of the distribution (Howell, 2006).

\*\* Kurtosis: The degree of peakedness or flatness of the distribution (Howell, 2006).

Table 2.12 – Q-sort Priorities of Statement #12: *Incorporate integrated learning into capstone experiences.*

| Category | Frequency | Percent |
|----------|-----------|---------|
| A        | 1         | 12.5    |
| B        | 1         | 12.5    |
| C        | 0         | 0.0     |
| D        | 2         | 25.0    |
| E        | 4         | 50.0    |
| F        | 0         | 0.0     |
| G        | 0         | 0.0     |
| Total    | 8         | 100.0   |



Mean = 4.13  
 Standard Deviation = 1.55  
 Median = 3.50

\*Skewness = -1.255  
 \*\*Kurtosis = .238

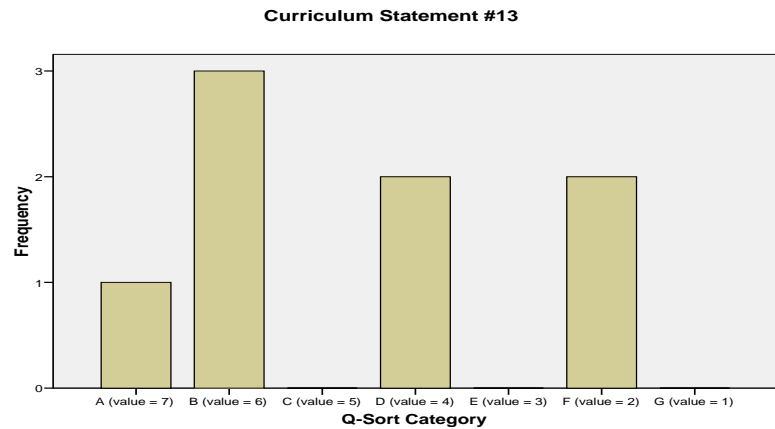
Note: A = “Most Important”, G = “Least Important”.

\* Skewness: The degree of asymmetry of the distribution (Howell, 2006).

\*\* Kurtosis: The degree of peakedness or flatness of the distribution (Howell, 2006).

Table 2.13 – Q-sort Priorities of Statement #13: *Hire and reward faculty for teaching excellence.*

| Category | Frequency | Percent |
|----------|-----------|---------|
| A        | 1         | 12.5    |
| B        | 3         | 37.5    |
| C        | 0         | 0.0     |
| D        | 2         | 25.0    |
| E        | 0         | 0.0     |
| F        | 2         | 25.0    |
| G        | 0         | 0.0     |
| Total    | 8         | 100.0   |



Mean = 4.63  
 Standard Deviation = 1.92  
 Median = 5.00

\*Skewness = .415  
 \*\*Kurtosis = -1.442

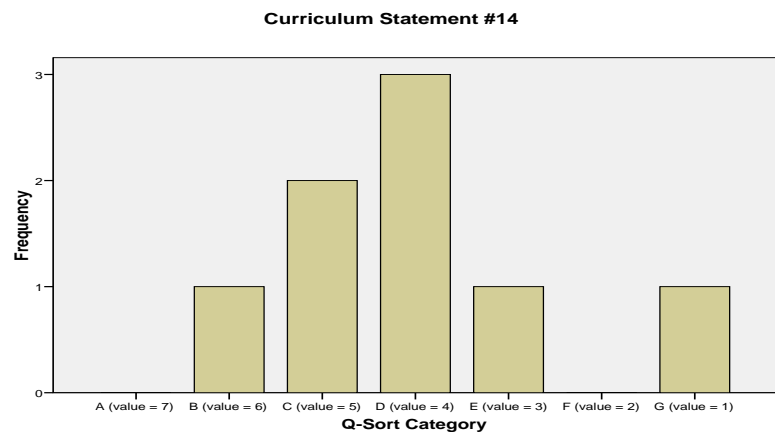
Note: A = “Most Important”, G = “Least Important”.

\* Skewness: The degree of asymmetry of the distribution (Howell, 2006).

\*\* Kurtosis: The degree of peakedness or flatness of the distribution (Howell, 2006).

Table 2.14 – Q-sort Priorities of Statement #14: *Utilize industry-based needs and issues to guide curriculum.*

| Category | Frequency | Percent |
|----------|-----------|---------|
| A        | 0         | 0.0     |
| B        | 1         | 12.5    |
| C        | 2         | 25.0    |
| D        | 3         | 37.5    |
| E        | 1         | 12.5    |
| F        | 0         | 0.0     |
| G        | 1         | 12.5    |
| Total    | 8         | 100.0   |



Mean = 4.00  
 Standard Deviation = 1.51  
 Median = 4.00

\*Skewness = .992  
 \*\*Kurtosis = 1.662

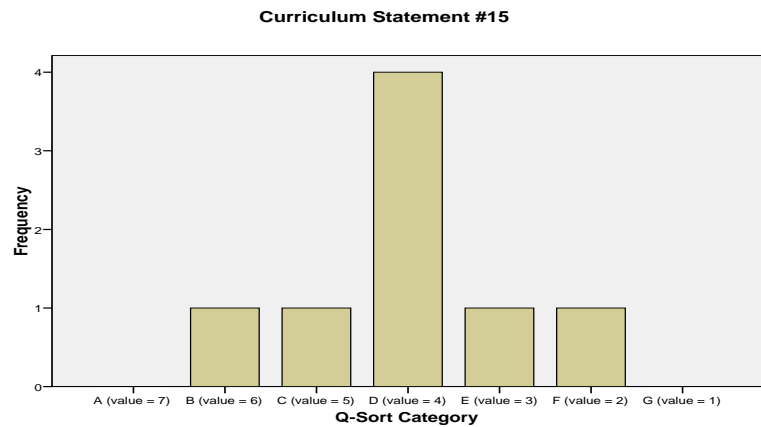
Note: A = “Most Important”, G = “Least Important”.

\* Skewness: The degree of asymmetry of the distribution (Howell, 2006).

\*\* Kurtosis: The degree of peakedness or flatness of the distribution (Howell, 2006).

Table 2.15 – Q-sort Priorities of Statement #15: *Integrate disciplines across college curriculum.*

| Category | Frequency | Percent |
|----------|-----------|---------|
| A        | 0         | 0.0     |
| B        | 1         | 12.5    |
| C        | 1         | 12.5    |
| D        | 4         | 50.0    |
| E        | 1         | 12.5    |
| F        | 1         | 12.5    |
| G        | 0         | 0.0     |
| Total    | 8         | 100.0   |



Mean = 4.00  
 Standard Deviation = 1.20  
 Median = 4.00

\*Skewness = .000  
 \*\*Kurtosis = .812

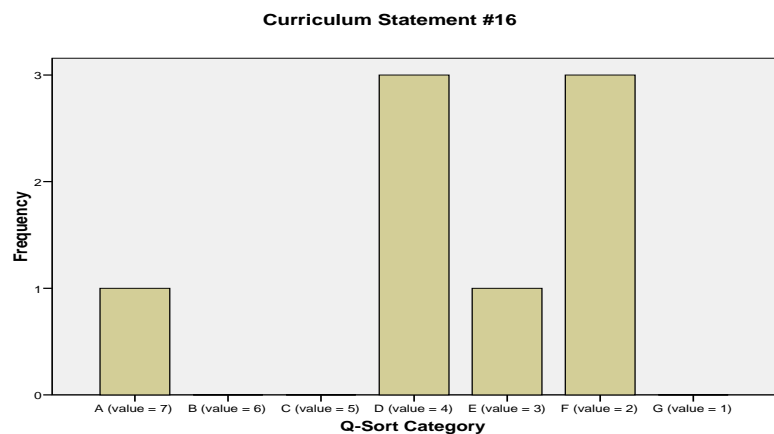
Note: A = “Most Important”, G = “Least Important”.

\* Skewness: The degree of asymmetry of the distribution (Howell, 2006).

\*\* Kurtosis: The degree of peakedness or flatness of the distribution (Howell, 2006).

Table 2.16 – Q-sort Priorities of Statement #16: *More awareness of energy use and its relationship to global warming.*

| Category | Frequency | Percent |
|----------|-----------|---------|
| A        | 1         | 12.5    |
| B        | 0         | 0.0     |
| C        | 0         | 0.0     |
| D        | 3         | 37.5    |
| E        | 1         | 12.5    |
| F        | 3         | 37.5    |
| G        | 0         | 0.0     |
| Total    | 8         | 100.0   |



Mean = 3.50  
 Standard Deviation = 1.69  
 Median = 3.50

\*Skewness = -1.302  
 \*\*Kurtosis = 2.051

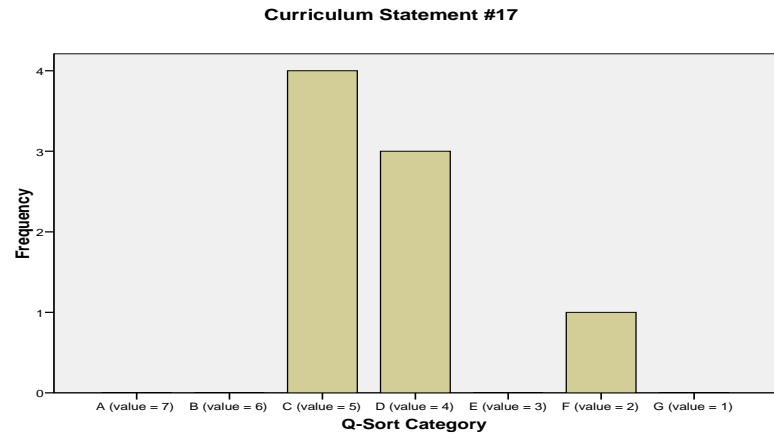
Note: A = “Most Important”, G = “Least Important”.

\* Skewness: The degree of asymmetry of the distribution (Howell, 2006).

\*\* Kurtosis: The degree of peakedness or flatness of the distribution (Howell, 2006).

Table 2.17 – Q-sort Priorities of Statement #17: *Expand technology in classrooms.*

| Category | Frequency | Percent |
|----------|-----------|---------|
| A        | 0         | 0.0     |
| B        | 0         | 0.0     |
| C        | 4         | 50.0    |
| D        | 3         | 37.5    |
| E        | 0         | 0.0     |
| F        | 1         | 12.5    |
| G        | 0         | 0.0     |
| Total    | 8         | 100.0   |



Mean = 4.25  
 Standard Deviation = 1.04  
 Median = 4.50

\*Skewness = 1.675  
 \*\*Kurtosis = 3.136

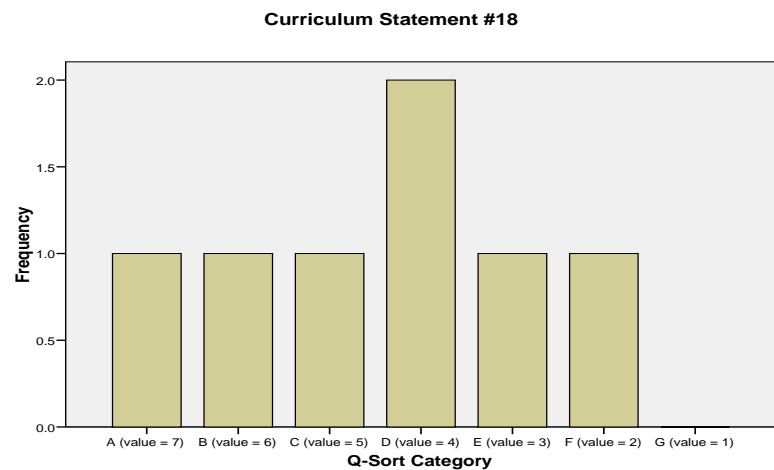
Note: A = “Most Important”, G = “Least Important”.

\* Skewness: The degree of asymmetry of the distribution (Howell, 2006).

\*\* Kurtosis: The degree of peakedness or flatness of the distribution (Howell, 2006).

Table 2.18 – Q-sort Priorities of Statement #18: *Implement service learning expectations for students.*

| Category    | Frequency | Percent |
|-------------|-----------|---------|
| A           | 1         | 12.5    |
| B           | 1         | 12.5    |
| C           | 1         | 12.5    |
| D           | 2         | 25.0    |
| E           | 1         | 12.5    |
| F           | 1         | 12.5    |
| G           | 0         | 0.0     |
| No Response | 1         | 12.5    |
| Total       | 8         | 100.0   |



Mean = 4.43  
 Standard Deviation = 1.72  
 Median = 4.00

\*Skewness = -.169  
 \*\*Kurtosis = -.638

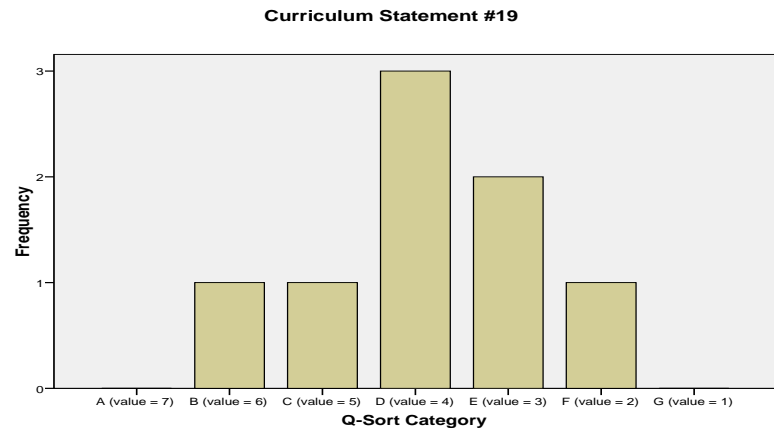
Note: A = “Most Important”, G = “Least Important”.

\* Skewness: The degree of asymmetry of the distribution (Howell, 2006).

\*\* Kurtosis: The degree of peakedness or flatness of the distribution (Howell, 2006).

Table 2.19 – Q-sort Priorities of Statement #19: *Expand undergraduate research internship opportunities.*

| Category | Frequency | Percent |
|----------|-----------|---------|
| A        | 0         | 0.0     |
| B        | 1         | 12.5    |
| C        | 1         | 12.5    |
| D        | 3         | 37.5    |
| E        | 2         | 25.0    |
| F        | 1         | 12.5    |
| G        | 0         | 0.0     |
| Total    | 8         | 100.0   |



Mean = 3.88  
 Standard Deviation = 1.25  
 Median = 4.00

\*Skewness = -.304  
 \*\*Kurtosis = .146

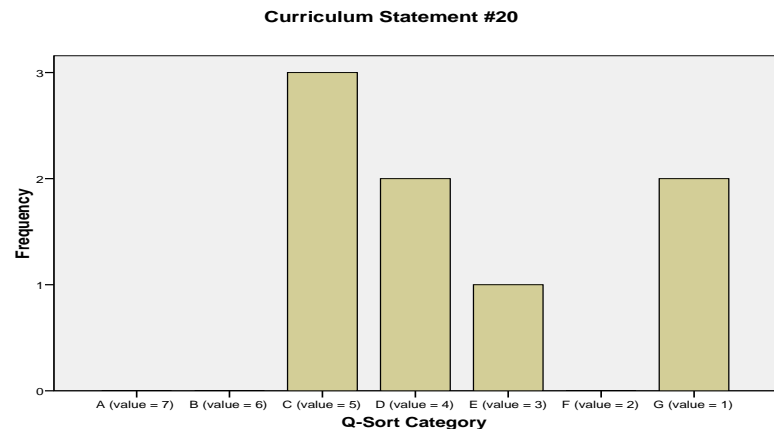
Note: A = “Most Important”, G = “Least Important”.

\* Skewness: The degree of asymmetry of the distribution (Howell, 2006).

\*\* Kurtosis: The degree of peakedness or flatness of the distribution (Howell, 2006).

Table 2.20 – Q-sort Priorities of Statement #20: *Teach basic academic skills (math, writing, computer).*

| Category | Frequency | Percent |
|----------|-----------|---------|
| A        | 0         | 0.0     |
| B        | 0         | 0.0     |
| C        | 3         | 37.5    |
| D        | 2         | 25.0    |
| E        | 1         | 12.5    |
| F        | 0         | 0.0     |
| G        | 2         | 25.0    |
| Total    | 8         | 100.0   |



Mean = 3.50  
 Standard Deviation = 1.69  
 Median = 4.00

\*Skewness = .828  
 \*\*Kurtosis = -.973

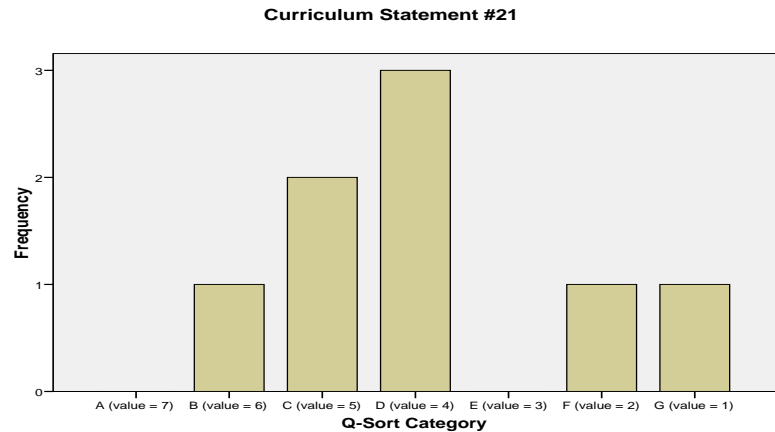
Note: A = “Most Important”, G = “Least Important”.

\* Skewness: The degree of asymmetry of the distribution (Howell, 2006).

\*\* Kurtosis: The degree of peakedness or flatness of the distribution (Howell, 2006).

Table 2.21 – Q-sort Priorities of Statement #21: *Develop student / business / industry interactive programs.*

| Category | Frequency | Percent |
|----------|-----------|---------|
| A        | 0         | 0.0     |
| B        | 1         | 12.5    |
| C        | 2         | 25.0    |
| D        | 3         | 37.5    |
| E        | 0         | 0.0     |
| F        | 1         | 12.5    |
| G        | 1         | 12.5    |
| Total    | 8         | 100.0   |



Mean = 3.88  
 Standard Deviation = 1.64  
 Median = 4.00

\*Skewness = .770  
 \*\*Kurtosis = .017

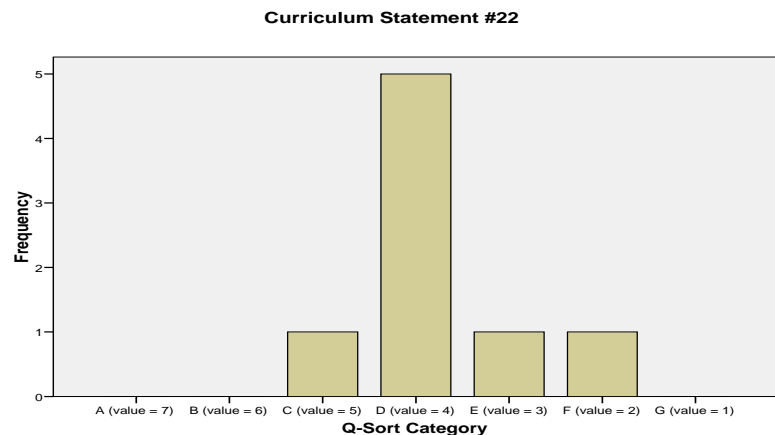
Note: A = “Most Important”, G = “Least Important”.

\* Skewness: The degree of asymmetry of the distribution (Howell, 2006).

\*\* Kurtosis: The degree of peakedness or flatness of the distribution (Howell, 2006).

Table 2.22 – Q-sort Priorities of Statement #22: *Teach cutting-edge technology.*

| Category | Frequency | Percent |
|----------|-----------|---------|
| A        | 0         | 0.0     |
| B        | 0         | 0.0     |
| C        | 1         | 12.5    |
| D        | 5         | 62.5    |
| E        | 1         | 12.5    |
| F        | 1         | 12.5    |
| G        | 0         | 0.0     |
| Total    | 8         | 100.0   |



Mean = 3.75  
 Standard Deviation = 0.87  
 Median = 4.00

\*Skewness = 1.026  
 \*\*Kurtosis = 1.851

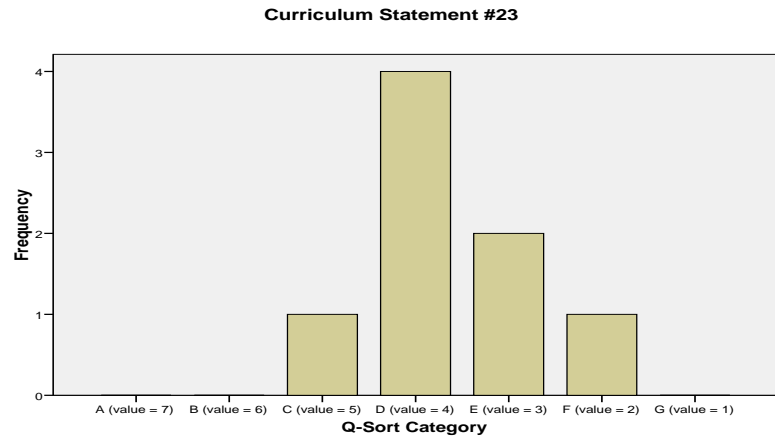
Note: A = “Most Important”, G = “Least Important”.

\* Skewness: The degree of asymmetry of the distribution (Howell, 2006).

\*\* Kurtosis: The degree of peakedness or flatness of the distribution (Howell, 2006).

Table 2.23 – Q-sort Priorities of Statement #23: *Lead students through project management and program development.*

| Category | Frequency | Percent |
|----------|-----------|---------|
| A        | 0         | 0.0     |
| B        | 0         | 0.0     |
| C        | 1         | 12.5    |
| D        | 4         | 50.0    |
| E        | 2         | 25.0    |
| F        | 1         | 12.5    |
| G        | 0         | 0.0     |
| Total    | 8         | 100.0   |



Mean = 3.63  
 Standard Deviation = 0.92  
 Median = 4.00

\*Skewness = .488  
 \*\*Kurtosis = .421

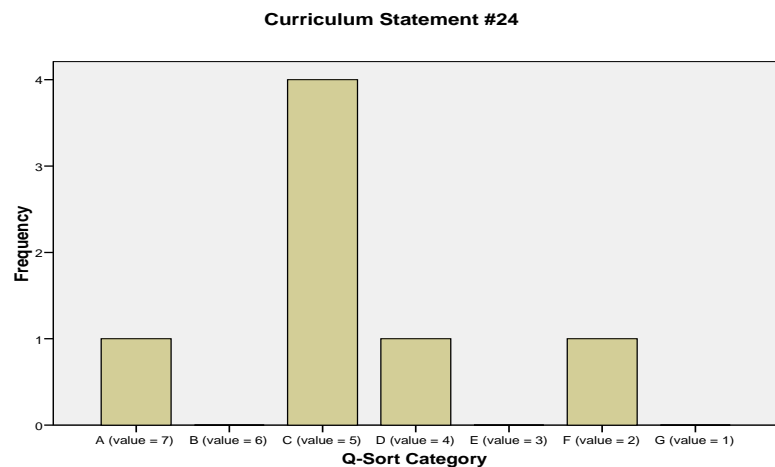
Note: A = “Most Important”, G = “Least Important”.

\* Skewness: The degree of asymmetry of the distribution (Howell, 2006).

\*\* Kurtosis: The degree of peakedness or flatness of the distribution (Howell, 2006).

Table 2.24 – Q-sort Priorities of Statement #24: *Invest in teacher development.*

| Category    | Frequency | Percent |
|-------------|-----------|---------|
| A           | 1         | 12.5    |
| B           | 0         | 0.0     |
| C           | 4         | 50.0    |
| D           | 1         | 12.5    |
| E           | 0         | 0.0     |
| F           | 1         | 12.5    |
| G           | 0         | 0.0     |
| No Response | 1         | 12.5    |
| Total       | 8         | 100.0   |



Mean = 4.71  
 Standard Deviation = 1.50  
 Median = 5.00

\*Skewness = .580  
 \*\*Kurtosis = 2.226

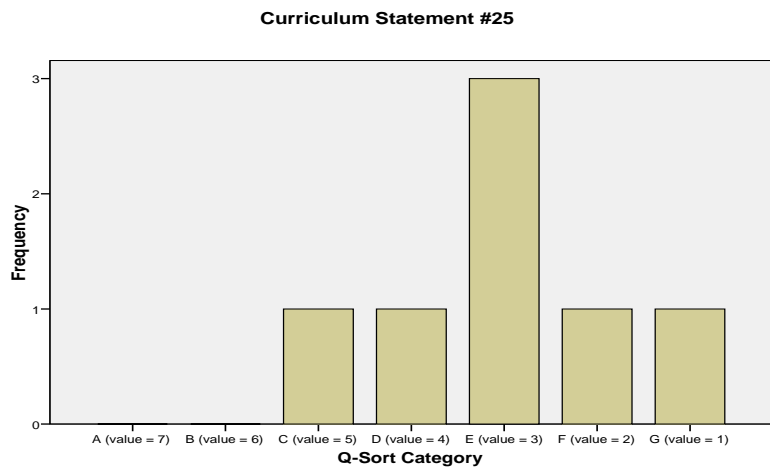
Note: A = “Most Important”, G = “Least Important”.

\* Skewness: The degree of asymmetry of the distribution (Howell, 2006).

\*\* Kurtosis: The degree of peakedness or flatness of the distribution (Howell, 2006).

Table 2.25 – Q-sort Priorities of Statement #25: *Implement short term industry externships for faculty.*

| Category    | Frequency | Percent |
|-------------|-----------|---------|
| A           | 0         | 0.0     |
| B           | 0         | 0.0     |
| C           | 1         | 12.5    |
| D           | 1         | 12.5    |
| E           | 3         | 37.5    |
| F           | 1         | 12.5    |
| G           | 1         | 12.5    |
| No Response | 1         | 12.5    |
| Total       | 8         | 100.0   |



Mean = 3.00

Standard Deviation = 1.29

Median = 3.00

\*Skewness = .000

\*\*Kurtosis = .312

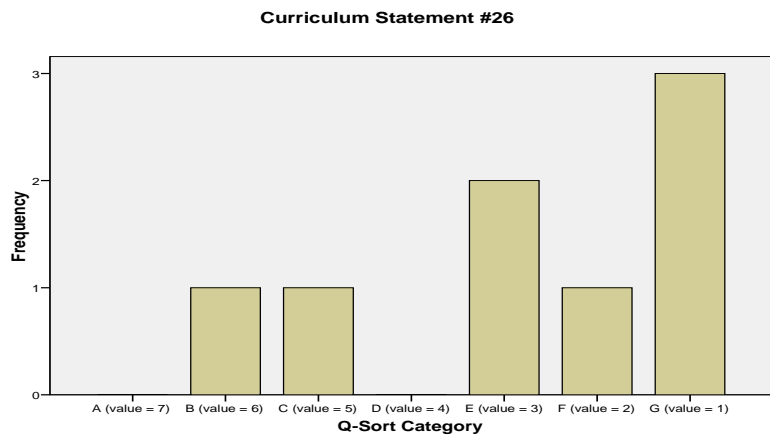
Note: A = “Most Important”, G = “Least Important”.

\* Skewness: The degree of asymmetry of the distribution (Howell, 2006).

\*\* Kurtosis: The degree of peakedness or flatness of the distribution (Howell, 2006).

Table 2.26 – Q-sort Priorities of Statement #26: *Develop international experiences for students.*

| Category | Frequency | Percent |
|----------|-----------|---------|
| A        | 0         | 0.0     |
| B        | 1         | 12.5    |
| C        | 1         | 12.5    |
| D        | 0         | 0.0     |
| E        | 2         | 25.0    |
| F        | 1         | 12.5    |
| G        | 3         | 37.5    |
| Total    | 8         | 100.0   |



Mean = 2.75

Standard Deviation = 1.91

Median = 2.50

\*Skewness = -.801

\*\*Kurtosis = -.620

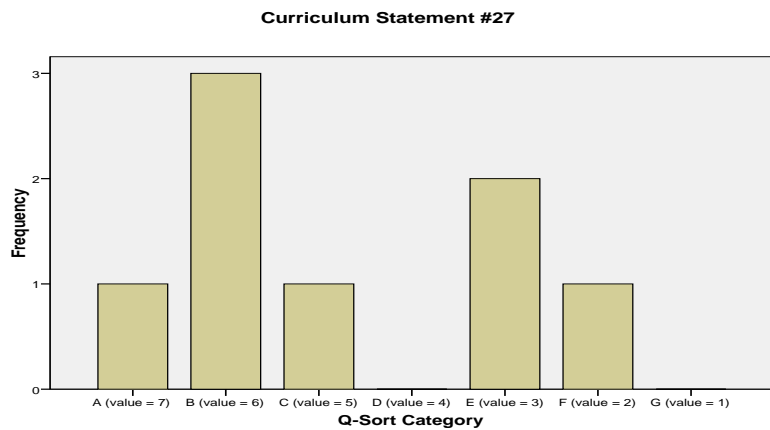
Note: A = “Most Important”, G = “Least Important”.

\* Skewness: The degree of asymmetry of the distribution (Howell, 2006).

\*\* Kurtosis: The degree of peakedness or flatness of the distribution (Howell, 2006).

Table 2.27 – Q-sort Priorities of Statement #27: *Teach team building and leadership development.*

| Category | Frequency | Percent |
|----------|-----------|---------|
| A        | 1         | 12.5    |
| B        | 3         | 37.5    |
| C        | 1         | 12.5    |
| D        | 0         | 0.0     |
| E        | 2         | 25.0    |
| F        | 1         | 12.5    |
| G        | 0         | 0.0     |
| Total    | 8         | 100.0   |



Mean = 4.75  
 Standard Deviation = 1.83  
 Median = 5.50

\*Skewness = .441  
 \*\*Kurtosis = -1.587

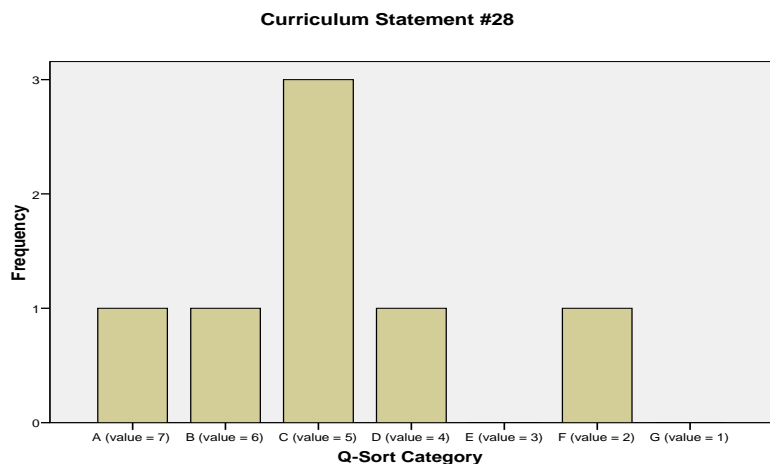
Note: A = “Most Important”, G = “Least Important”.

\* Skewness: The degree of asymmetry of the distribution (Howell, 2006).

\*\* Kurtosis: The degree of peakedness or flatness of the distribution (Howell, 2006).

Table 2.28 – Q-sort Priorities of Statement #28: *Increase recruitment of urban and suburban students.*

| Category    | Frequency | Percent |
|-------------|-----------|---------|
| A           | 1         | 12.5    |
| B           | 1         | 12.5    |
| C           | 3         | 37.5    |
| D           | 1         | 12.5    |
| E           | 0         | 0.0     |
| F           | 1         | 12.5    |
| G           | 0         | 0.0     |
| No Response | 1         | 12.5    |
| Total       | 8         | 100.0   |



Mean = 4.86  
 Standard Deviation = 1.57  
 Median = 5.00

\*Skewness = .755  
 \*\*Kurtosis = 1.448

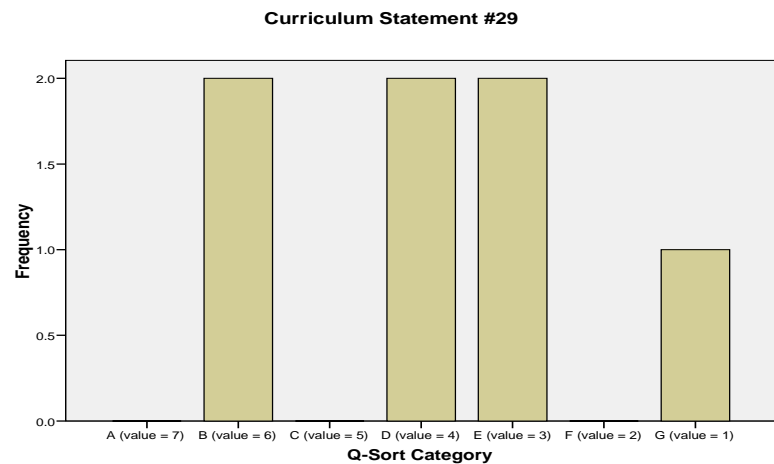
Note: A = “Most Important”, G = “Least Important”.

\* Skewness: The degree of asymmetry of the distribution (Howell, 2006).

\*\* Kurtosis: The degree of peakedness or flatness of the distribution (Howell, 2006).

Table 2.29 – Q-sort Priorities of Statement #29: *Improve technology for 24 / 7 learning (outside the classroom).*

| Category    | Frequency | Percent |
|-------------|-----------|---------|
| A           | 0         | 0.0     |
| B           | 2         | 25.0    |
| C           | 0         | 0.0     |
| D           | 2         | 25.0    |
| E           | 2         | 25.0    |
| F           | 0         | 0.0     |
| G           | 1         | 12.5    |
| No Response | 1         | 12.5    |
| Total       | 8         | 100.0   |



Mean = 3.86  
 Standard Deviation = 1.77  
 Median = 4.00

\*Skewness = .205  
 \*\*Kurtosis = -.208

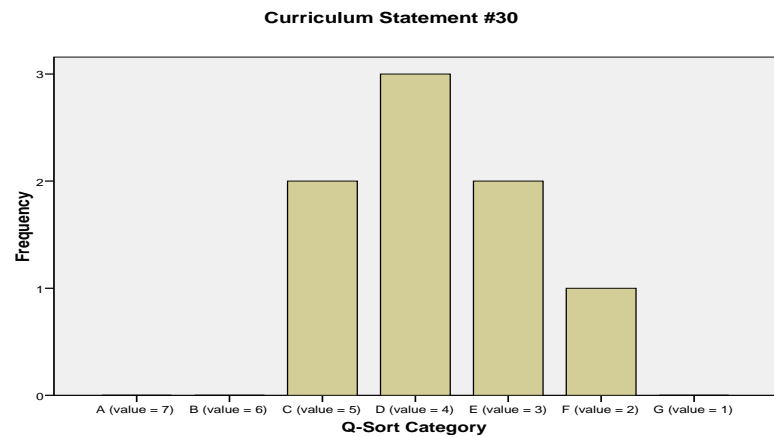
Note: A = “Most Important”, G = “Least Important”.

\* Skewness: The degree of asymmetry of the distribution (Howell, 2006).

\*\* Kurtosis: The degree of peakedness or flatness of the distribution (Howell, 2006).

Table 2.30 – Q-sort Priorities of Statement #30: *Teach ethics, including professionalism.*

| Category | Frequency | Percent |
|----------|-----------|---------|
| A        | 0         | 0.0     |
| B        | 0         | 0.0     |
| C        | 2         | 25.0    |
| D        | 3         | 37.5    |
| E        | 2         | 25.0    |
| F        | 1         | 12.5    |
| G        | 0         | 0.0     |
| Total    | 8         | 100.0   |



Mean = 3.75  
 Standard Deviation = 1.04  
 Median = 4.00

\*Skewness = .386  
 \*\*Kurtosis = -.448

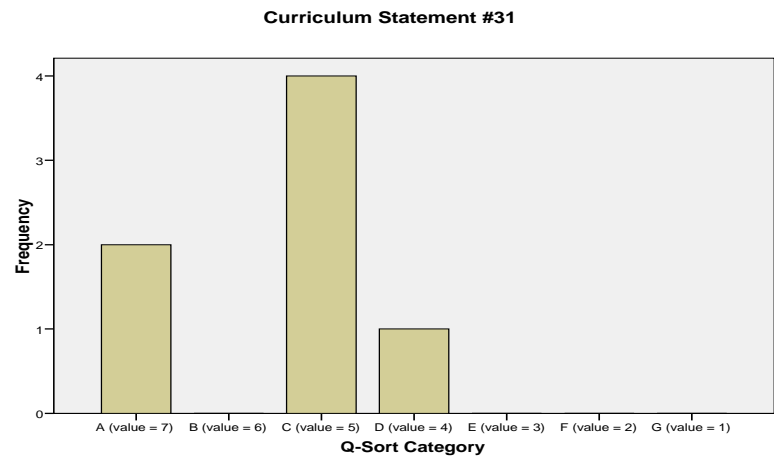
Note: A = “Most Important”, G = “Least Important”.

\* Skewness: The degree of asymmetry of the distribution (Howell, 2006).

\*\* Kurtosis: The degree of peakedness or flatness of the distribution (Howell, 2006).

Table 2.31 – Q-sort Priorities of Statement #31: *More synthesis/problem solving - project-based curriculum (outside the textbook).*

| Category    | Frequency | Percent |
|-------------|-----------|---------|
| A           | 2         | 25.0    |
| B           | 0         | 0.0     |
| C           | 4         | 50.0    |
| D           | 1         | 12.5    |
| E           | 0         | 0.0     |
| F           | 0         | 0.0     |
| G           | 0         | 0.0     |
| No Response | 1         | 12.5    |
| Total       | 8         | 100.0   |



Mean = 5.43

Standard Deviation = 1.13

Median = 5.00

\*Skewness = .341

\*\*Kurtosis = -1.049

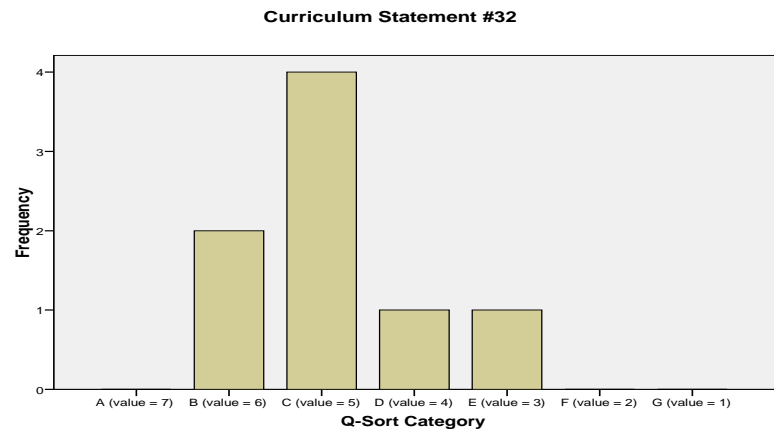
Note: A = “Most Important”, G = “Least Important”.

\* Skewness: The degree of asymmetry of the distribution (Howell, 2006).

\*\* Kurtosis: The degree of peakedness or flatness of the distribution (Howell, 2006).

Table 2.32 – Q-sort Priorities of Statement #32: *Expand hands-on laboratories experiences.*

| Category | Frequency | Percent |
|----------|-----------|---------|
| A        | 0         | 0.0     |
| B        | 2         | 25.0    |
| C        | 4         | 50.0    |
| D        | 1         | 12.5    |
| E        | 1         | 12.5    |
| F        | 0         | 0.0     |
| G        | 0         | 0.0     |
| Total    | 8         | 100.0   |



Mean = 4.88

Standard Deviation = 0.99

Median = 5.00

\*Skewness = .862

\*\*Kurtosis = .840

Note: A = “Most Important”, G = “Least Important”.

\* Skewness: The degree of asymmetry of the distribution (Howell, 2006).

\*\* Kurtosis: The degree of peakedness or flatness of the distribution (Howell, 2006).

## Rank Order of Weighted Means of Curricular Statements

In order to determine the priority of the curriculum statements, means were calculated and the statements were ordered. Caution is suggested as the data was of ordinal strength.

Table 3.1 – Rank Order of Weighted Means of Curricular Statements.

| <u>Rank</u>                                           | <u>Mean</u> | <u>Statement</u>                                                            |
|-------------------------------------------------------|-------------|-----------------------------------------------------------------------------|
| <i>Items with Mean Weights <math>\geq 5.00</math></i> |             |                                                                             |
| 1.                                                    | 5.63        | Q05 – Teach critical thinking, data analysis, and information gathering     |
| 2.                                                    | 5.43        | Q31 – More synthesis/problem solving-project-based curr. (outside the text) |
| <i>4.00 – 4.99</i>                                    |             |                                                                             |
| 3.                                                    | 4.88        | Q32 – Expand hands-on laboratories experiences                              |
| 4.                                                    | 4.86        | Q28 – Increase recruitment of urban and suburban students                   |
| 5.                                                    | 4.75        | Q27 – Teach team building and leadership development                        |
| 6.                                                    | 4.71        | Q24 – Invest in teacher development                                         |
| 7.                                                    | 4.63        | Q13 – Hire and reward faculty for teaching excellence                       |
| 8.                                                    | 4.50        | Q07 – Improve student oral, written, and electronic communication skills    |
| 9.                                                    | 4.43        | Q18 – Implement service learning expectations for students                  |
| 10.                                                   | 4.38        | Q02 – Incorporate “working” student teams into course objectives            |
| 11.                                                   | 4.25        | Q17 – Expand technology in classrooms                                       |
| 12.                                                   | 4.25        | Q11 – Provide a firm foundation in basic science skills                     |
| 13.                                                   | 4.13        | Q12 – Incorporate integrated learning into capstone experiences             |
| 14.                                                   | 4.13        | Q04 – Expand off-campus programs                                            |
| 15.                                                   | 4.13        | Q03 – Increase student awareness of the global ecosystem                    |
| 16.                                                   | 4.00        | Q15 – Integrate disciplines across college curriculum                       |
| 17.                                                   | 4.00        | Q14 – Utilize industry-based needs and issues to guide curriculum           |
| <i>3.00 – 3.99</i>                                    |             |                                                                             |
| 18.                                                   | 3.88        | Q21 – Develop student / business / industry interactive programs            |
| 19.                                                   | 3.88        | Q19 – Expand undergraduate research internship opportunities                |
| 20.                                                   | 3.86        | Q29 – Improve technology for 24 / 7 learning (outside the classroom)        |
| 21.                                                   | 3.75        | Q30 – Teach ethics, including professionalism                               |
| 22.                                                   | 3.75        | Q22 – Teach cutting-edge technology                                         |
| 23.                                                   | 3.63        | Q23 – Lead students through project management and program development      |
| 24.                                                   | 3.63        | Q08 – Expand academic advising                                              |
| 25.                                                   | 3.50        | Q20 – Teach basic academic skills (math, writing, computer)                 |
| 26.                                                   | 3.50        | Q16 – More awareness of energy use and its relationship to global warming   |
| 27.                                                   | 3.38        | Q01 – Customize curriculum for individual student interests                 |
| 28.                                                   | 3.00        | Q25 – Implement short term industry externships for faculty                 |
| 29.                                                   | 3.00        | Q10 – Focus on sustainable resource practices                               |
| 30.                                                   | 3.00        | Q06 – Remove under performer teachers from the classroom                    |
| <i>2.00 – 2.99</i>                                    |             |                                                                             |
| 31.                                                   | 2.75        | Q26 – Develop international experiences for students                        |
| 32.                                                   | 2.63        | Q09 – Better integrate natural resources and agriculture                    |

Note: Q-sort Categories were coded: 7 = “Most Important”, 1 = “Least Important”.

## Frequencies of Curricular Statements by Category

Table 4.1 – Frequencies of Curriculum Statements Placed in Category A

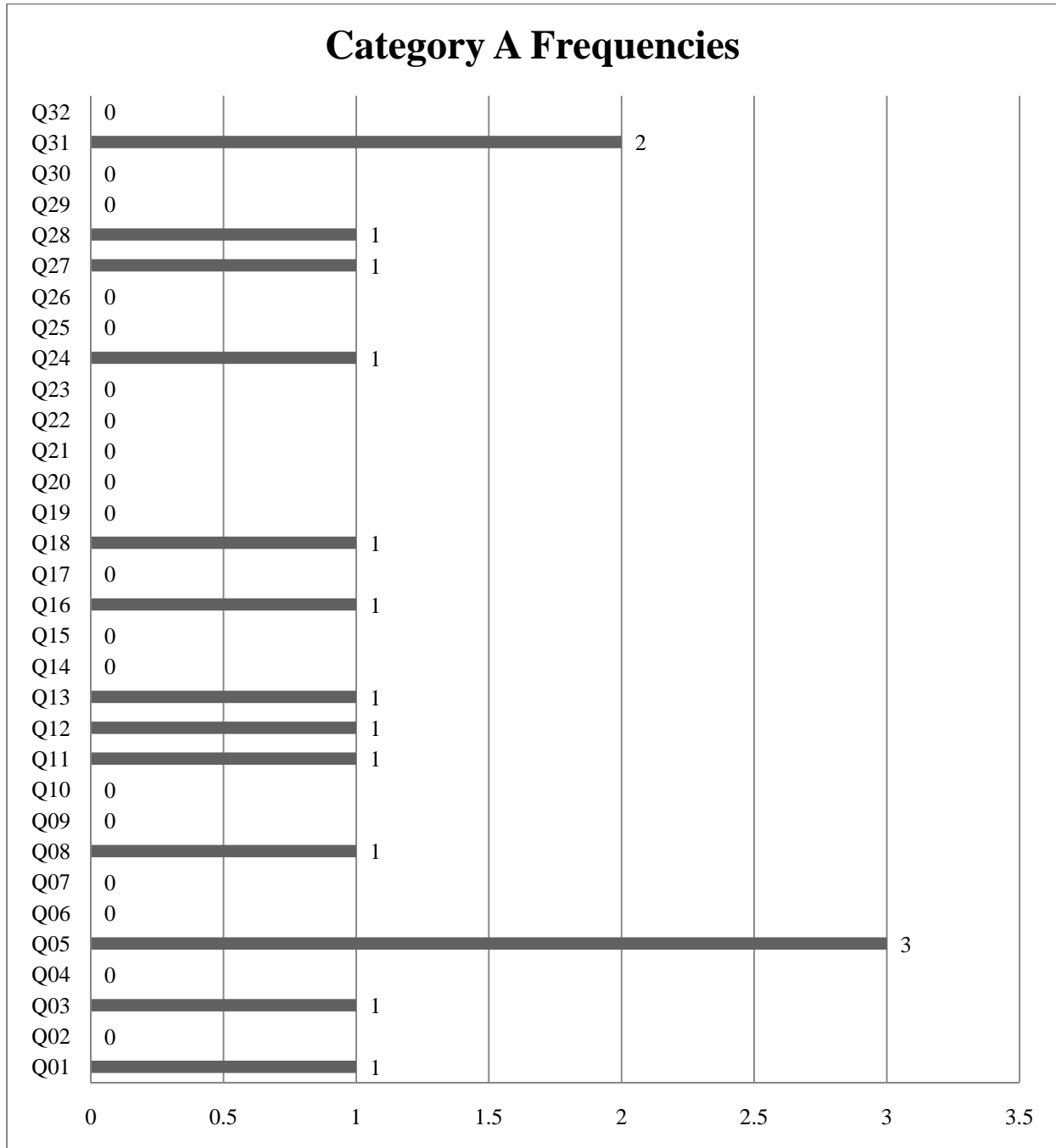


Table 4.2 – Frequencies of Curriculum Statements Placed in Category B

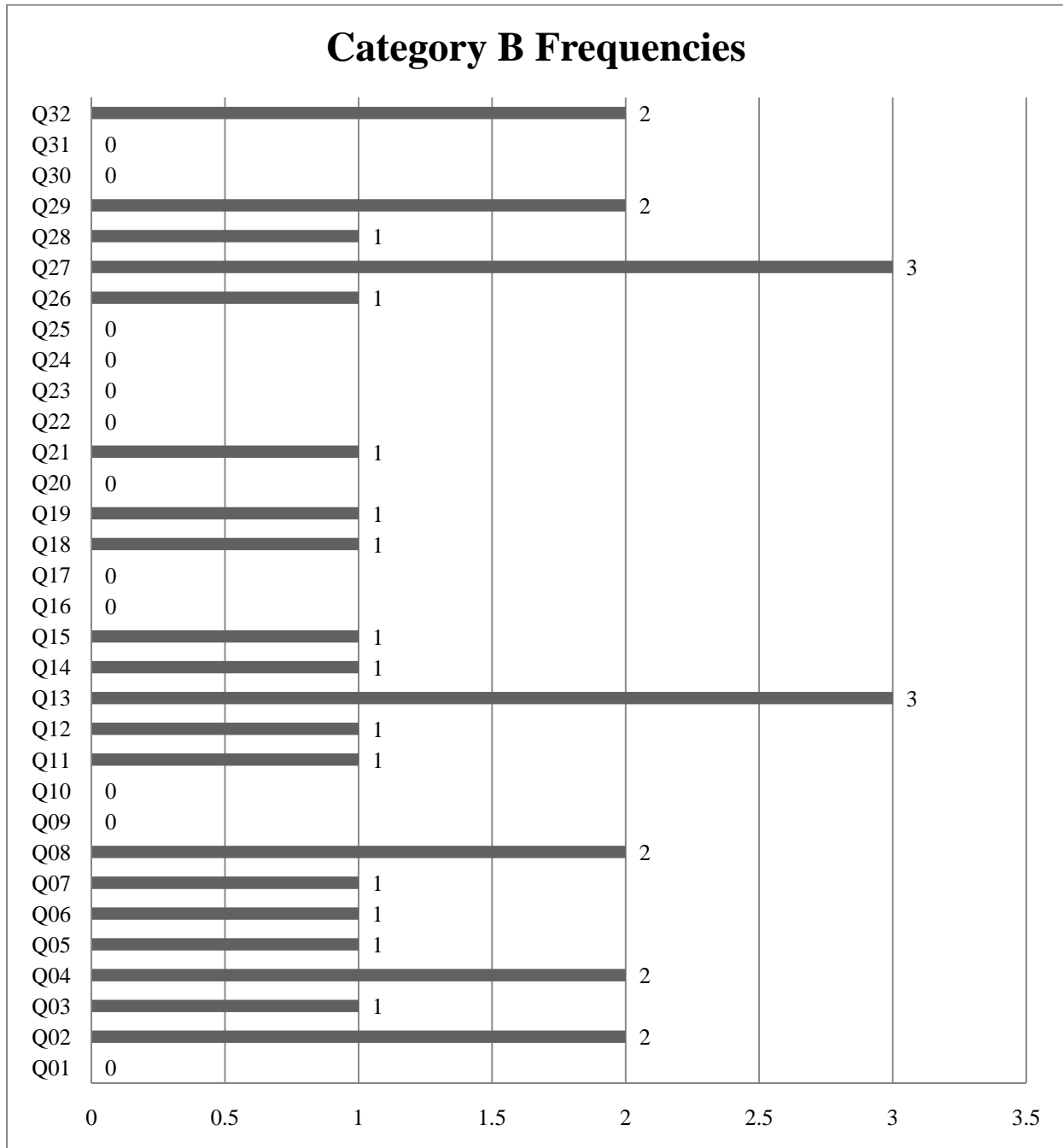


Table 4.3 – Frequencies of Curriculum Statements Placed in Category C

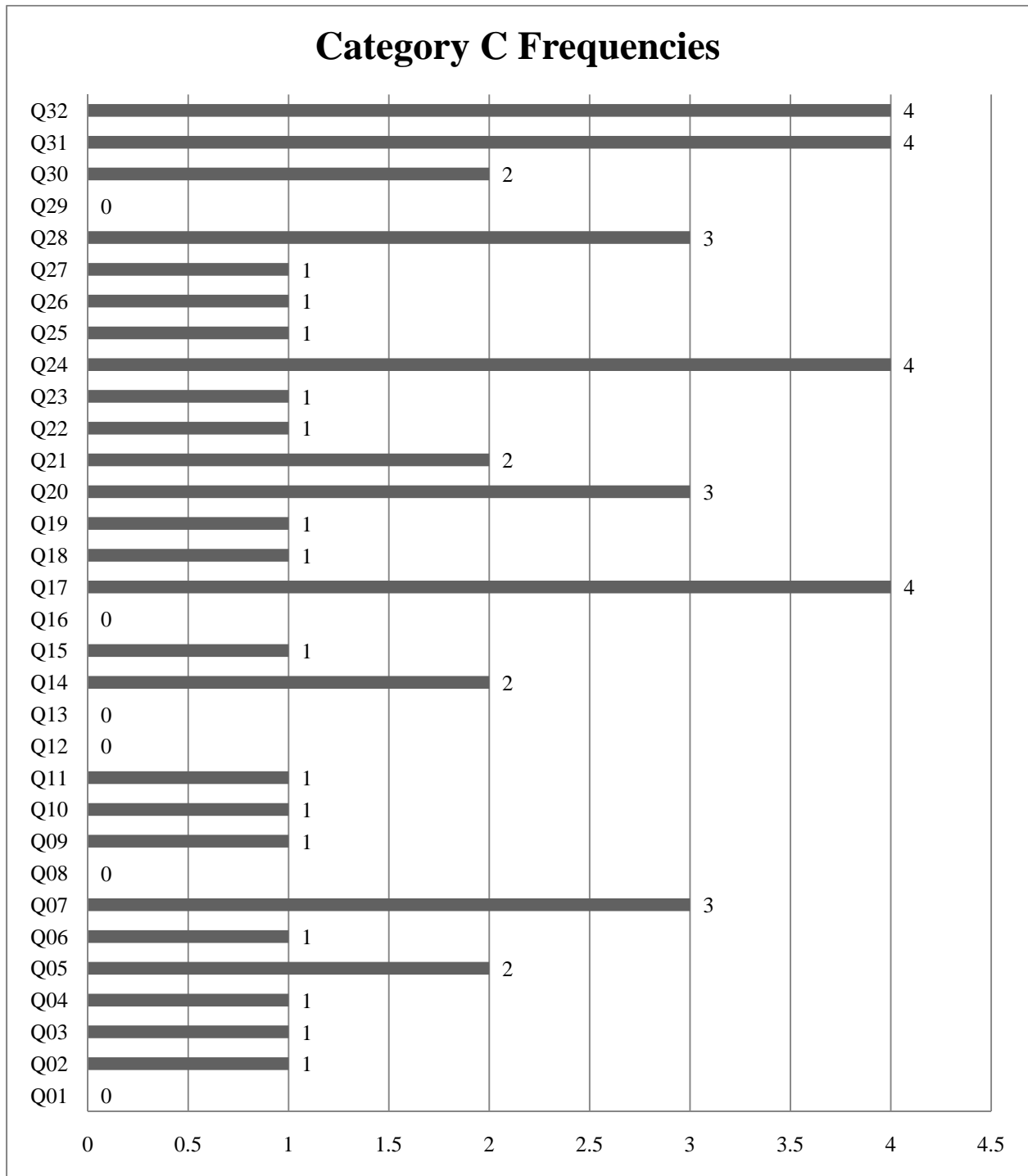


Table 4.4 – Frequencies of Curriculum Statements Placed in Category D

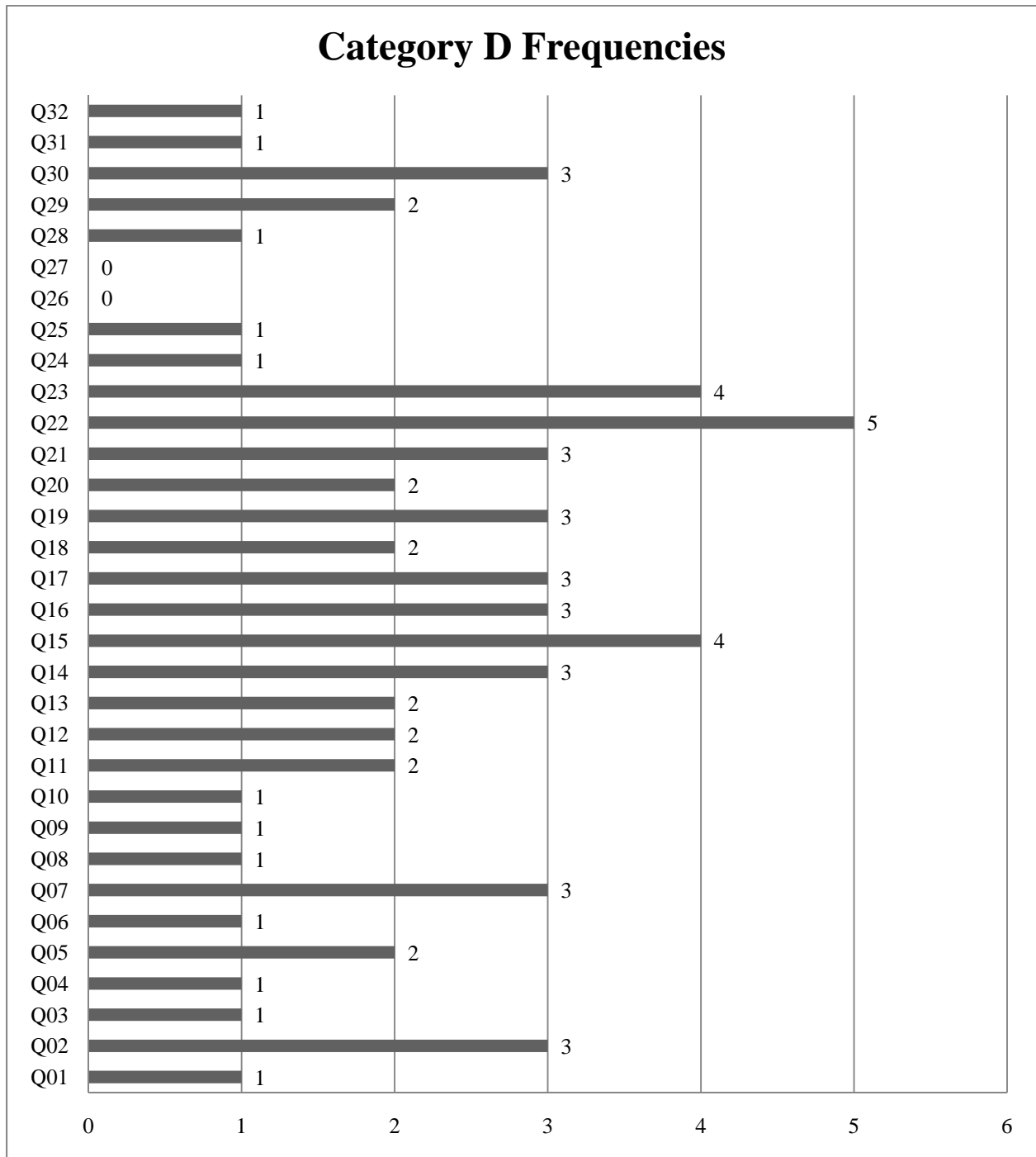


Table 4.5 – Frequencies of Curriculum Statements Placed in Category E

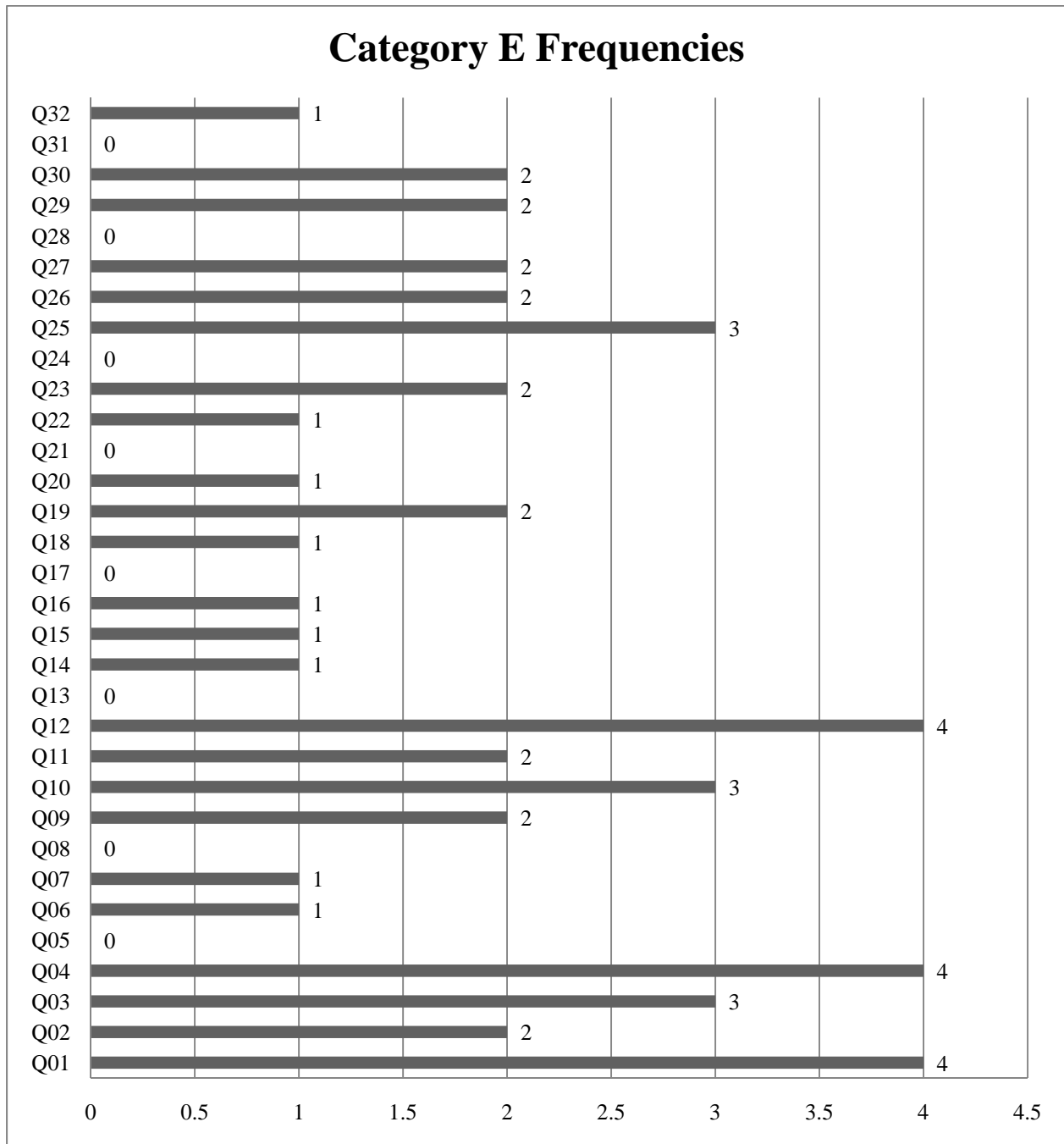


Table 4.6 – Frequencies of Curriculum Statements Placed in Category F

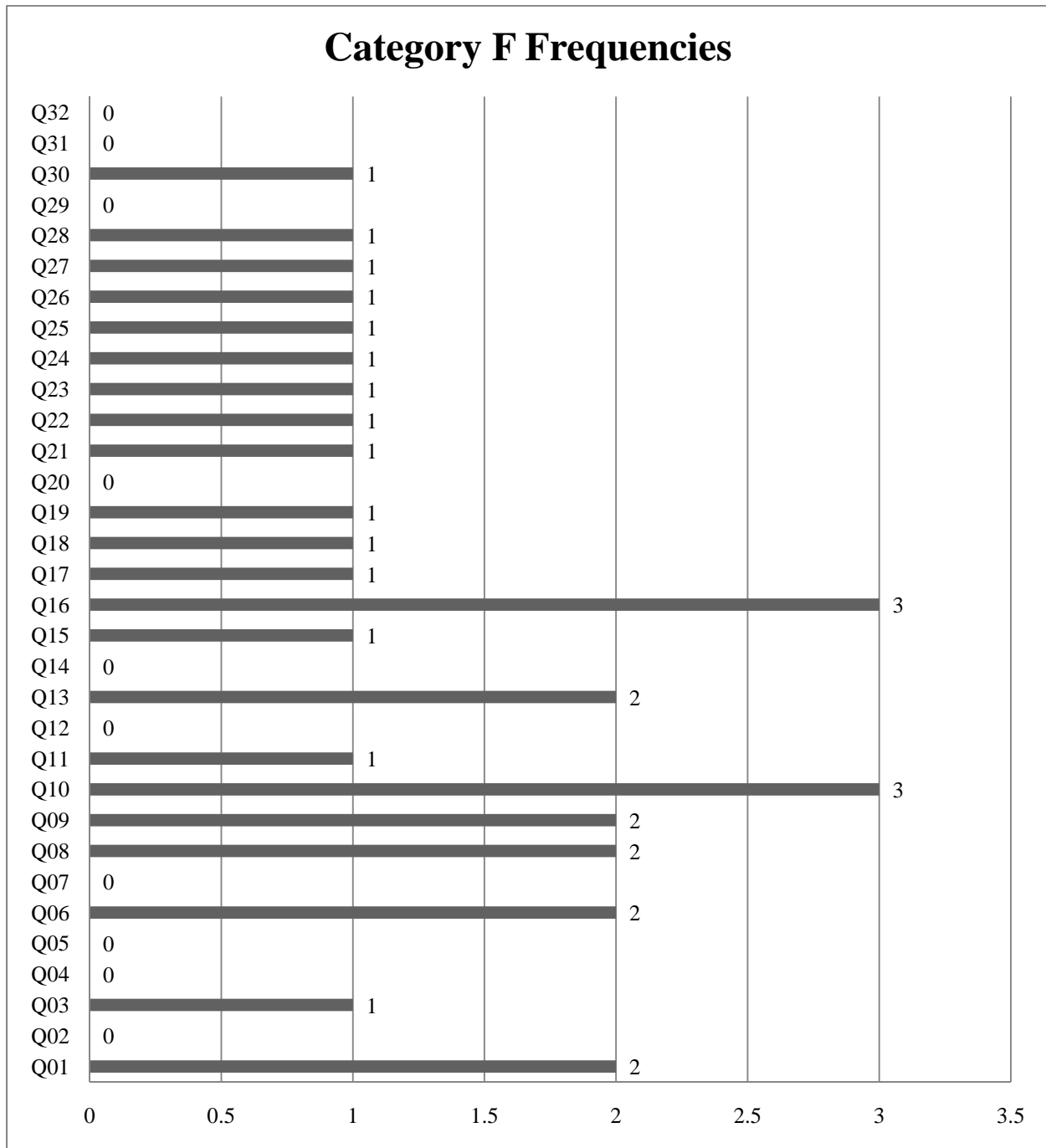
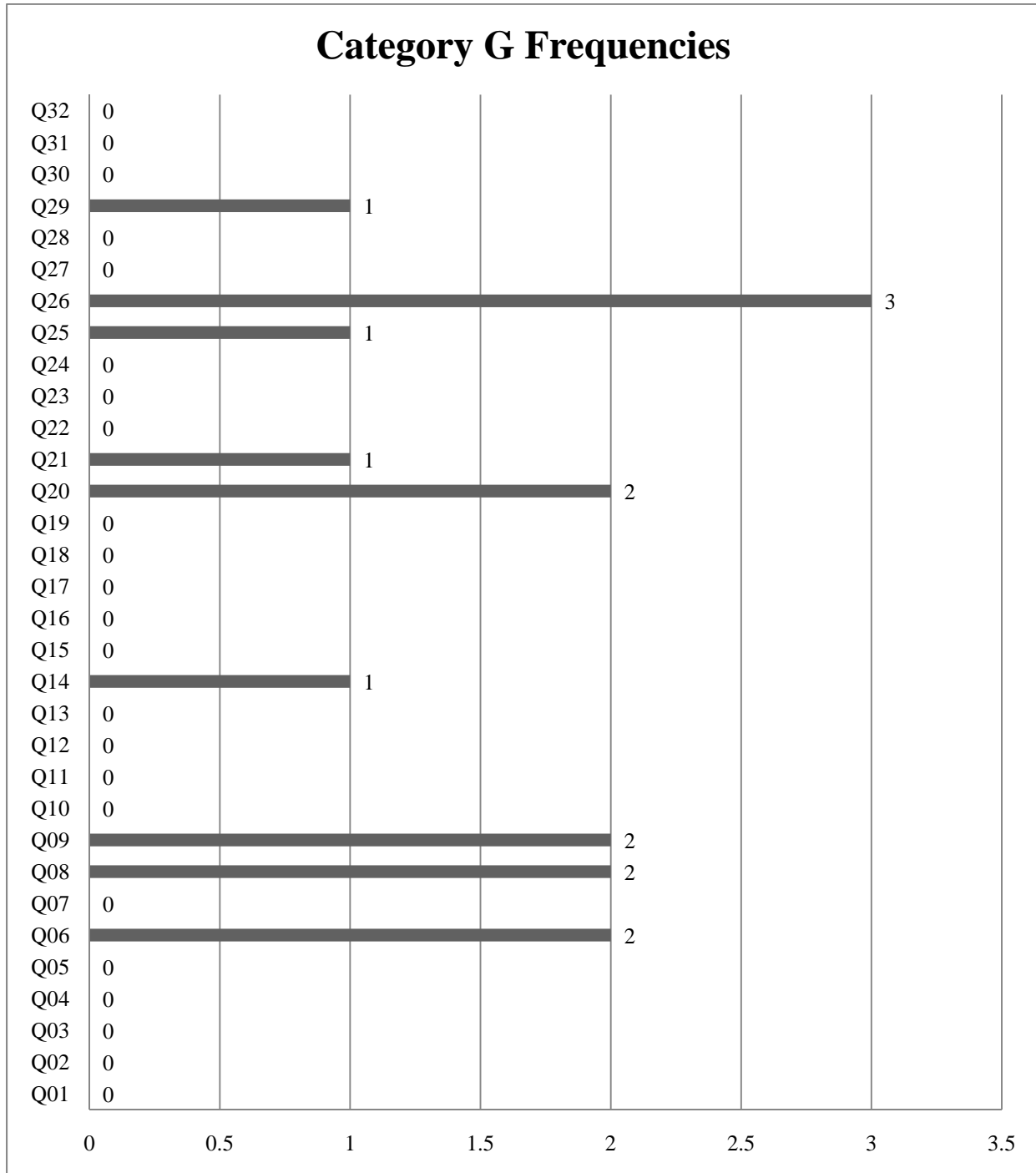


Table 4.7 – Frequencies of Curriculum Statements Placed in Category G



## References

Howell, D. C. (2006). *Statistical methods for psychology* (6<sup>th</sup> ed.). Boston: Duxbury Press.

Stephenson, W. (1953). *The study of behavior: Q-technique and its methodology*. Chicago: The University of Chicago Press.