



Evidence of Student Learning in the M.A. in Education

A Triangulation of Multiple Measures

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September, 2006
(With Updates – November 2007)

Memo

To: Dr. Jennifer P. Cochran, Director of M.A. in Education
From: Dr. Jamie B. Slater, Director of Organizational Research & Assessment
Katherine H. Clendening, Research Associate
Date: December 19, 2006
Re: **Triangulation of Multiple Measures of Student Learning in Program Outcomes**

This document draws together a good deal of data on student learning in the program outcomes of the M.A. in Education. It represents the hard work of a number of ProfEd administrators and faculty who have endeavored to demonstrate what has been obvious for years – that the M.A. in Education is a program of high quality that serves its students well.

Measurement Tools

Three instruments were utilized in this triangulation of direct and supporting measures of student learning:

- M.A. in Education Capstone Scoring Rubric (n = 90)
- Alumni Survey 2004-05 (n = 446)
- Current Student Survey 2006 (n = 81; Survey will be re-administered to students in Canada)

Observations

The Capstone Scoring Rubric, a direct measure of learning, was piloted during 2005-06. We have the following observations regarding its use:

- Rubric items have been assigned to program outcomes by ORA staff; however, the M.A. in Education faculty and leadership may wish to re-assign rubric items, based upon their understanding and expertise in content.
- Usage of the rubric by faculty for scoring was inconsistent. However, it was deemed possible to interpret a very high proportion of faculty scoring within an acceptable margin of error.
- It is recommended that training for faculty in usage of the rubric be undertaken to support greater consistency in the data produced by the instrument.
- Opinions have been written for Program Outcomes 1, 2, 3, and 6. Those outcomes have data from both direct and supporting measures of learning.
- The histogram and frequency table, "Total Points Earned on all Dimensions", (following page), displays the grade distribution of all ninety (90) capstone projects.

The distribution is heavily skewed, with a mean grade between A- and B+, and a very high standard deviation.

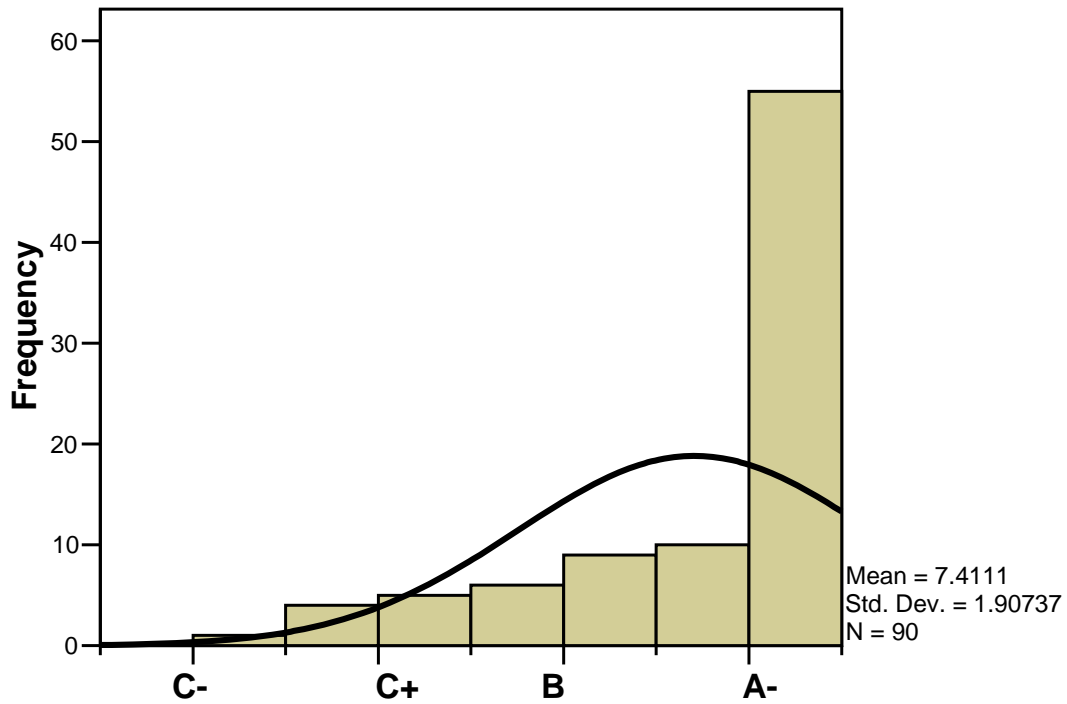
Next Steps

The M.A. in Education faculty and leadership are now in a position to determine the meaning of this data on student learning in program outcomes. The Office of Organizational Research & Assessment is quite willing to support gatherings, formal or informal, of M.A. in Education faculty and staff focused on “sense-making” of these measurements. Support by ORA may include staffing, funding, or consulting – or all of the above.

We are anxious to learn whether or not this document’s format provides optimal support for faculty decision-making, and how to improve upon it. Nothing is more important to us than supporting our program faculty and leadership in determining the extent of student learning, and establishing unassailable proof of program quality.

Total Points Earned on all Dimensions

Frequency Distribution of Scores



(1) Below 63 = E; (2) 63-66 = C-; (3) 67-71 = C; (4) 72-74 = C+; (5) 75-79 = B-; (6) 80-83 = B; (7) 84-88 = B+; (8) 88-92 = A-; (9) 93-100 = A

		Frequency	Percent	Valid Percent
Valid	C-	1	1.1	1.1
	C	4	4.4	4.4
	C+	5	5.6	5.6
	B-	6	6.7	6.7
	B	9	10.0	10.0
	B+	10	11.1	11.1
	A-	16	17.8	17.8
	A	39	43.3	43.3
	Total	90	100.0	100.0

Survey Instruments

Master of Arts in Education Capstone Scoring Rubric

M.A. in Education Alumni Survey 2006-07

M.A. in Education Current Student Survey 2005–06

M.A. in Education Alumni Survey 2004-05

Master of Arts in Education – Capstone Scoring Rubric
STUDENT NAME

LEVELS: 5 = Exemplary 4 = Excellent 3 = Good 2 = Satisfactory 1 = Unsatisfactory

Dimension	5	4	3	2	1	Points Earned
Problem statement - 10%						0
<input type="checkbox"/> Sets out problem and purpose of the research	<input type="checkbox"/>					
<input type="checkbox"/> Makes connections to previous research	<input type="checkbox"/>					
<input type="checkbox"/> Establishes need/contribution/value to the field of study	<input type="checkbox"/>					
<input type="checkbox"/> Describes limitations to the study	<input type="checkbox"/>					
<input type="checkbox"/> Defines unique terminology	<input type="checkbox"/>					
Literature Review - 15%						0
<input type="checkbox"/> Sets out a context for the research	<input type="checkbox"/>					
<input type="checkbox"/> Evolves in an organized progression	<input type="checkbox"/>					
<input type="checkbox"/> Utilizes and synthesizes current, relevant, and credible sources	<input type="checkbox"/>					
<input type="checkbox"/> Appropriate APA format for citations was used	<input type="checkbox"/>					
<input type="checkbox"/> Supports the purpose and direction of the research project	<input type="checkbox"/>					
Methodology - 20%						0
<input type="checkbox"/> Complements the problem/purpose	<input type="checkbox"/>					
<input type="checkbox"/> Details methods of collecting and analyzing data	<input type="checkbox"/>					
<input type="checkbox"/> Legitimizes measuring/survey instruments to be used	<input type="checkbox"/>					
<input type="checkbox"/> Identifies sample and selection procedures	<input type="checkbox"/>					
<input type="checkbox"/> For a product, explains process for design and development specifications, including monitoring and evaluation of the product.	<input type="checkbox"/>					
Analysis/Results - 25%						0
<input type="checkbox"/> Addresses and explains all the data presented and/or materials	<input type="checkbox"/>					
<input type="checkbox"/> Provides narrative to explain tables/figures and all items are referenced in the product	<input type="checkbox"/>					
<input type="checkbox"/> Product suited the needs of the intended target population (If a product)	<input type="checkbox"/>					
<input type="checkbox"/> For a product, includes the plan for monitoring and evaluation	<input type="checkbox"/>					
Conclusions/Recommendations - 10%						0
<input type="checkbox"/> Makes interpretations and recommendations based on the data provided	<input type="checkbox"/>					
<input type="checkbox"/> Integrates findings of the literature with findings of the study that relate to the research objectives	<input type="checkbox"/>					
References - 5%						0
<input type="checkbox"/> Reflect current scholarship on the problem/issue as well as historical scholarship	<input type="checkbox"/>					
<input type="checkbox"/> A minimum of 25 scholarly sources utilized	<input type="checkbox"/>					
<input type="checkbox"/> Are cited in the text and listed at the end of the capstone	<input type="checkbox"/>					
<input type="checkbox"/> Are sufficient in number to create the context for the problem and to demonstrate understanding of the problem/issue	<input type="checkbox"/>					
Writing/Formatting - 15%						0
<input type="checkbox"/> Demonstrates control of syntax, grammar, coherence; paragraphs are focused and connected with transitions	<input type="checkbox"/>					
<input type="checkbox"/> Builds a sequence of ideas that convey a reasonable argument	<input type="checkbox"/>					
<input type="checkbox"/> Proofread for spelling, typing, punctuation	<input type="checkbox"/>					

<input type="checkbox"/> The plan B paper included the preliminary and supplementary, pages required by the College of Graduate Studies, College of Extended Learning Capstone Project Guide: Title page, Appendix, List of References.	<input type="checkbox"/>					
<input type="checkbox"/> Reflects APA style: References are cited in text and listed in the end reference list according to the latest edition of the APA Style Manual. Tables and figures are labeled and numbered according to the latest edition of the APA Style Manual. Title page, Abstract, table of contents, lists of charts and graphs, headings, margins, and spacing conform to the latest edition of the APA Style Manual.	<input type="checkbox"/>					
Final Score/Grade						0

Scale is as follows: 100-93 = A; 92-89 = A-; 88-84 = B+; 83-80 = B
79-75 = B-; 74-72 = C+; 71-67 = C; 66-63 = C-; Below 63 = E

Monitor Name and Signature: _____ Date: _____

March 1, 2007

Dear

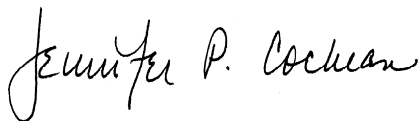
As an alumnus of the Master of Arts in Education program, ***you are the only person*** who can tell us about the impact of your learning experience at Central Michigan University! If we are to maintain our high level of quality in the M.A. in Education program, we need your input.

Would you please take a few minutes to help us continue to grow our high quality programs? Please complete the enclosed survey, and use the business reply envelope to return it to us. As our way of thanking you for your participation, when we receive your completed survey, we will place your name in a drawing for ***one of the following:***

- ***300 sweatshirts with CMU Alumni logo***
- ***150 T-shirts with CMU Alumni logo***
- ***50 18-inch Weekender Duffle Bags with CMU logo***

The drawing will take place in May 2007. Please be sure to put your name on the survey to be considered for the drawing.

Thanks very much for your help!



Jennifer P. Cochran, Ph.D.
Director of M.A. in Education Program



Merodie A. Hancock, Ph.D.
Vice President/Executive Director
Off-Campus Programs

M.A. in Education: Alumni Follow-up Survey

NAME _____

E-mail address: _____

PURPOSE OF YOUR CMU EDUCATION

1. What was your PRIMARY GOAL in attending the M.A. in Education program at CMU?

(Rank order all that apply: 1 = most important goal; 2 = next most important goal; etc.)

- | | |
|---|--|
| _____ To earn a degree | _____ To prepare for a new career or field of work |
| _____ To get a salary increase | _____ To get a job promotion |
| _____ To improve my skills in my current job or field of work | |
| _____ Other _____ | |

2. Why did you choose CMU, instead of another school?

(Rank order all that apply: 1 = most important reason; 2 = next most important reason; etc.)

- | | |
|---------------------------------|---|
| _____ Cost | _____ Offered desired degree program |
| _____ Convenient location | _____ Services provided |
| _____ Flexibility in scheduling | _____ Credit for previous work through Prior Learning portfolio |
| _____ Other _____ | |

QUALITY OF YOUR CMU EDUCATION

3. During my M.A. in Education program, overall, my instructors:

	Strongly Agree	Moderately Agree	Slightly Agree	Slightly Disagree	Moderately Disagree	Strongly Disagree
Understood and respected individual students' differences						
Communicated clear expectations for classes						
Applied course content to real life, especially the workplace						
Used a variety of teaching methods and learning activities						
Encouraged students to be responsible for their own learning						
Helped students achieve course learning objectives						
Challenged students intellectually						
Encouraged students to summarize, synthesize, analyze and apply information						
Provided feedback to help students keep track of their learning						
Chose assessments of students' knowledge which were relevant to course learning objectives						

Continue on Back Page

4. To what extent did your M.A. in Education program help you improve your ability to:

	Great Improvement	Moderate Improvement	Small Improvement	No Improvement
Evaluate current issues and trends influencing the field of education.				
Evaluate current research in the field of education.				
Design and conduct a study of an issue or problem in the field of education.				
Interpret and apply findings of the study to the problem or issue.				
Design curriculum that reflects accepted teaching and learning theory.				
Design learning strategies that reflect accepted teaching and learning theory.				
Utilize educational technologies that enhance student learning.				
Communicate effectively in writing to the intended target audience.				
Communicate verbally in an effective way to diverse audiences.				
Evaluate current issues and trends influencing the field of adult education.				
Develop curricula that meet the needs of adult learners in their particular communities.				

EMPLOYMENT

5. I am currently: (check all that apply)

- Employed in a job RELATED to my M.A. in Education program On active duty with the U.S. military
 Employed in a job NOT RELATED to my M.A. in Education program Continuing my education
 Not employed, but seeking work
 Not employed, not seeking work, because: _____

6. I am employed by:

Name of Employer: _____
 City: _____ State: _____ Zip Code: _____
 Job Title: _____

	YES	NO
Did you obtain your current position because you completed your most recent degree?		
Did you receive a promotion upon completion of your most recent degree?		
Did you receive a raise in income because of your completion of your most recent degree?		
Were you serving in the military while you were taking CMU courses?		

ALUMNI

	YES	NO
Have you participated in CMU alumni events?		
Would you like to be involved in future alumni events?		

What services would you like to see offered to alumni?

CMU's Director of Development would like to contact you regarding your CMU experience. Can he contact you by: Email: _____ Phone: _____ Please do not contact: _____

Quality of Learning

[Edit Page](#)[Delete Page](#)[Copy/Move](#)[Add Logic](#)[Add Question](#)[Add Page](#)[Edit](#) [Delete](#) [Copy/Move](#)

* 37. To what extent is your M.A. in Education program helping you improve your ability to:

Substantial Improvement Moderate Improvement Small Improvement No Improvement

Evaluate current issues and trends influencing the field of education.

Evaluate current research in the field of education.

Design and conduct a study of an issue or problem in the field of education.

Interpret and apply findings of the study to the problem or issue.

Design curriculum that reflects accepted teaching and learning theory.

Design learning strategies that reflect accepted teaching and learning theory.



Utilize educational technologies that enhance student learning.



Communicate effectively in writing to the intended target audience.



Communicate verbally in an effective way to diverse audiences.



Evaluate current issues and trends influencing the field of adult education.



Develop curricula that meet the needs of adult learners in their particular communities.



Add Question

Add Page

Dear _____ (first name) :

At Central Michigan University, it is our mission to continue serving adults who want to advance their professional lives with Masters-level programs focused on the field of Education. As an alumnus or alumna of the M.A. in Education program, ***you are the only person*** who can tell us about the impact of your learning experience at Central Michigan University!

If we are to maintain a high level of quality in the MA in Education program, we need your input. Would you please take a few minutes to help us? Please complete the enclosed survey, and use the business reply envelope to return it to us. As our way of thanking you for your help, we will place your name in a drawing for ***one of ten CMU sweatshirts***. The drawing will take place in early March 2005. Please be sure to put your name on the survey to be considered for the drawing.

Thanks very much for your help!

Jennifer P. Cochran, Ph.D.
Director, M.A. in Education

D. Terry Rawls, Ed.D.
Interim Vice President/Executive Director
ProfEd, CMU

M.A. in Education: Alumni Follow-up Survey

NAME _____

E-mail address: _____

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1. What was your PRIMARY GOAL in attending the M.A. in Education program at CMU?

(Rank order all that apply: 1 = most important goal; 2 = next most important goal; etc.)

- | | |
|---|--|
| _____ To earn a degree | _____ To prepare for a new career or field of work |
| _____ To get a salary increase | _____ To get a job promotion |
| _____ To improve my skills in my current job or field of work | |
| _____ Other _____ | |

2. Why did you choose CMU, instead of another school?

(Rank order all that apply: 1 = most important reason; 2 = next most important reason; etc.)

- | | |
|----------------------------------|---|
| _____ Cost | _____ Offered desired degree program |
| _____ Convenient location | _____ Services provided |
| _____ Flexibility in scheduling- | -----Credit for previous work through Prior |
| _____ Other | Prior Learning portfolio |

QUALITY OF YOUR CMU EDUCATION

3. During my M.A. in Education program, overall, my instructors:

	Strongly Agree	Moderately Agree	Slightly Agree	Slightly Disagree	Moderately Disagree	Strongly Disagree
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Provided feedback to help students keep track of their learning						
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4. To what extent did your M.A. in Education program help you improve your ability to:

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Evaluate current research in the field of education.				
Design and conduct a study of an issue or problem in the field of education.				
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Evaluate current issues and trends influencing the field of adult education.				
Develop curricula that meet the needs of adult learners in their particular communities.				

EMPLOYMENT

5. I am currently: (check all that apply)

- Employed in a job RELATED to my MA in Education program On active duty with the military
 Employed in a job NOT RELATED to my MA in Education program Continuing my education
 Not employed, but seeking work
 Not employed, not seeking work, because: _____

6. I am employed by:

Name of Employer: _____
 City: _____ State: _____ Zip Code: _____
 Job Title: _____

	YES	NO
7. Did you obtain your current position because you completed your most recent degree?		
8. Did you receive a promotion upon completion of your most recent degree?		
9. Did you receive a raise in income because of your completion of your most recent degree?		
10. Were you serving in the military while you were taking CMU courses?		

ALUMNI

	YES	NO
11. Have you participated in CMU alumni events?		
12. Would you like to be involved in future alumni events?		

What services would you like to see offered to alumni?

Program Outcome 1

Critically evaluate current issues and trends influencing the field of education.

Direct Measures

- Reflect Current Scholarship on the Problem/Issue as Well as Historical Scholarship – Capstone Scoring Rubric

Supporting Measures

- Evaluate Current Issues and Trends Influencing the Field of Education – Alumni Survey 2006-07
- Evaluate Current Issues and Trends Influencing the Field of Education – Current Student Survey 2005-06
- Evaluate Current Issues and Trends Influencing the Field of Education – Alumni Survey 2004-05

Triangulation of Multiple Measures of Student Learning in Program Outcomes

Program Outcome 1: Critically evaluate current issues and trends influencing the field of education

1. Opinion of Measures and Data

Program Outcome 1 is currently measured by:

- One direct measure obtained from the Capstone Rubric.
- Three supporting measures obtained from the 2006-07 Alumni Survey, 2005-06 Current Student Survey, and 2004-05 Alumni Survey.

The data obtained from those measures appear to be consistent among measures. Nearly four-fifths (78.8%) of students achieved a score of “Excellent” or “Exemplary” on the direct measure. With regard to the supporting measures, more than nine out of ten alumni from both the 2006-07 (90.5%) and 2004-05 (90.1%) surveys indicated responses of “Substantial Improvement” or “Moderate Improvement”, while 82.7% of current student responses indicated “Substantial Improvement” or “Moderate Improvement” in this program outcome.

The single direct measure of this program outcome should probably be supplemented with others, in order to more fully gauge student learning.

However, the data obtained thus far from the direct and supporting measures would lend credence to a finding by M.A. in Education faculty that student learning in Program Outcome 1 is proceeding satisfactorily.

Jamie B. Slater, Ed.D.
Director of Organizational Research & Assessment
CMU Off-Campus Programs

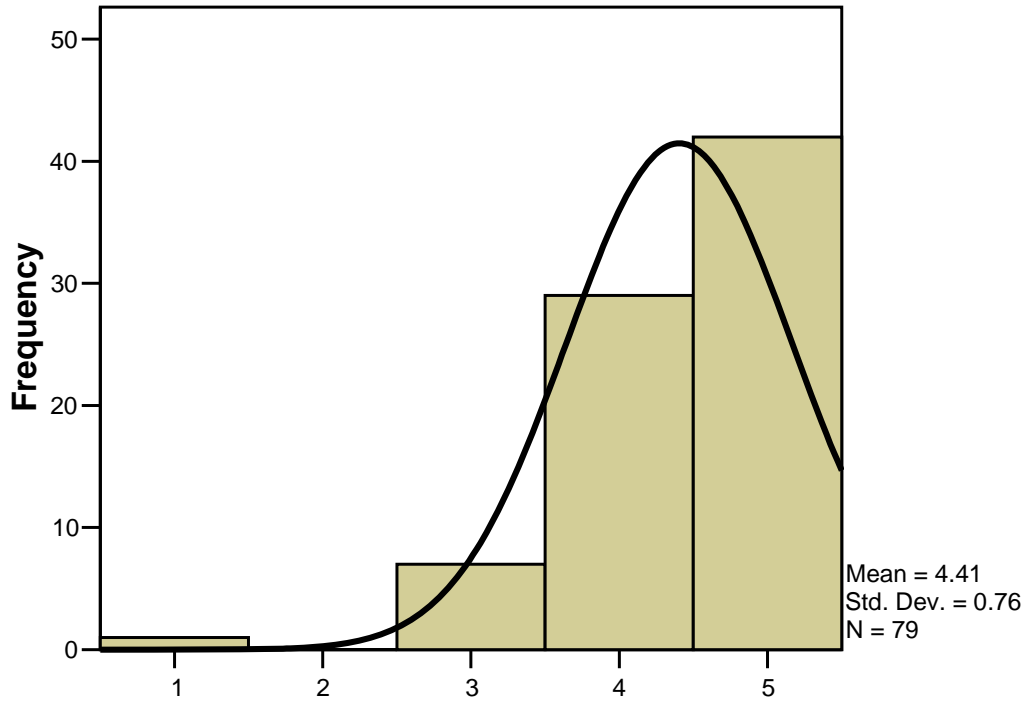
Katherine H. Clendening, M.A.
Research Associate, Organizational Research & Assessment
CMU Off-Campus Programs

2. Opinion of Faculty and Academic Leadership

Direct Measures

Reflect Current Scholarship on the Problem/Issue as Well as Historical Scholarship

Frequency Distribution of Scores



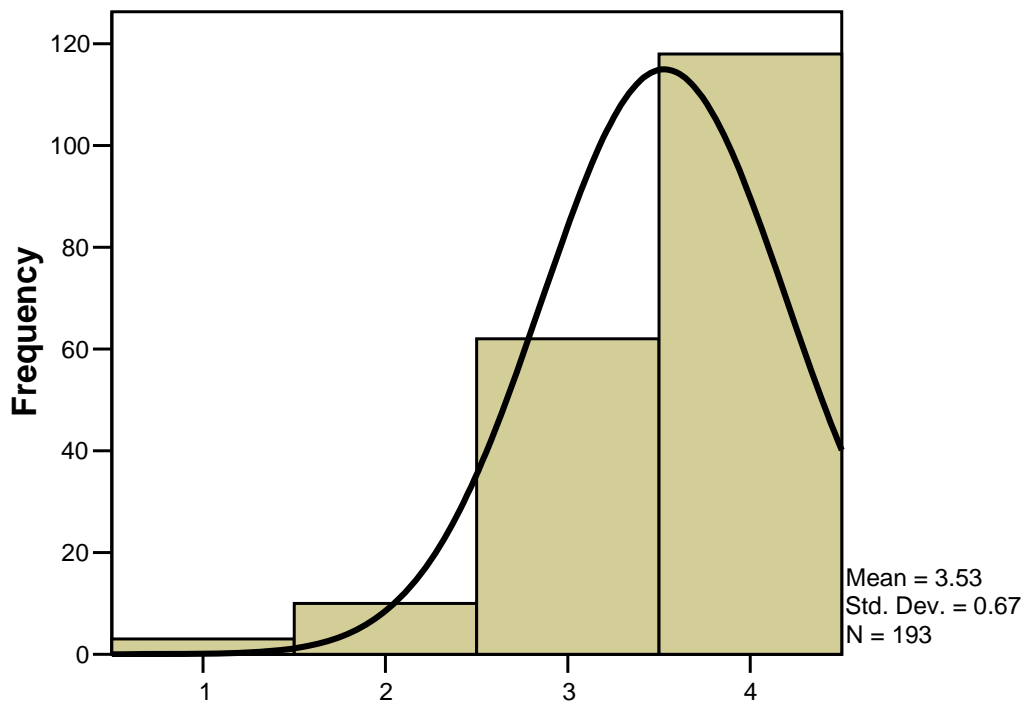
1 = Unsatisfactory; 2 = Satisfactory; 3 = Good; 4 = Excellent; 5 = Exemplary

		Frequency	Percent	Valid Percent
Valid	Unsatisfactory	1	1.1	1.3
	Good	7	7.8	8.9
	Excellent	29	32.2	36.7
	Exemplary	42	46.7	53.2
	Total	79	87.8	100.0
Missing	System	11	12.2	
Total		90	100.0	

Supporting Measures

Evaluate Current Issues and Trends Influencing the Field of Education

Frequency Distribution of Scores

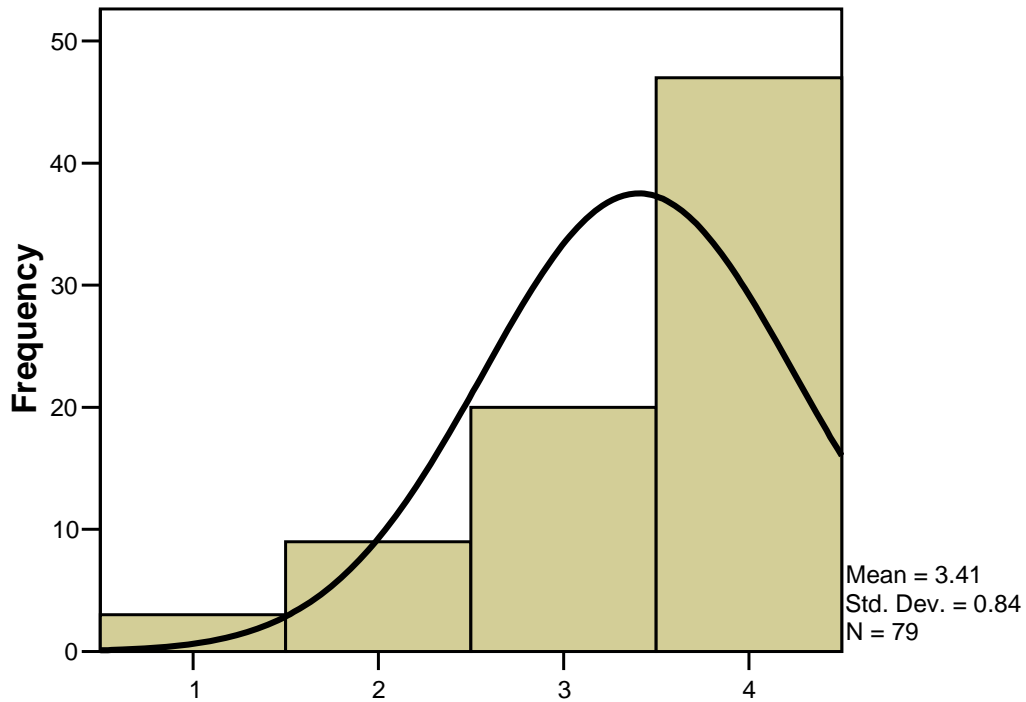


1 = No Improvement; 2 = Small Improvement; 3 = Moderate Improvement; 4 = Substantial Improvement

		Frequency	Percent	Valid Percent
Valid	No Improvement	3	1.5	1.6
	Small Improvement	10	5.0	5.2
	Moderate Improvement	62	31.2	32.1
	Substantial Improvement	118	59.3	61.1
	Total	193	97.0	100.0
Missing	System	6	3.0	
Total		199	100.0	

Evaluate Current Issues and Trends Influencing the Field of Education

Frequency Distribution of Scores

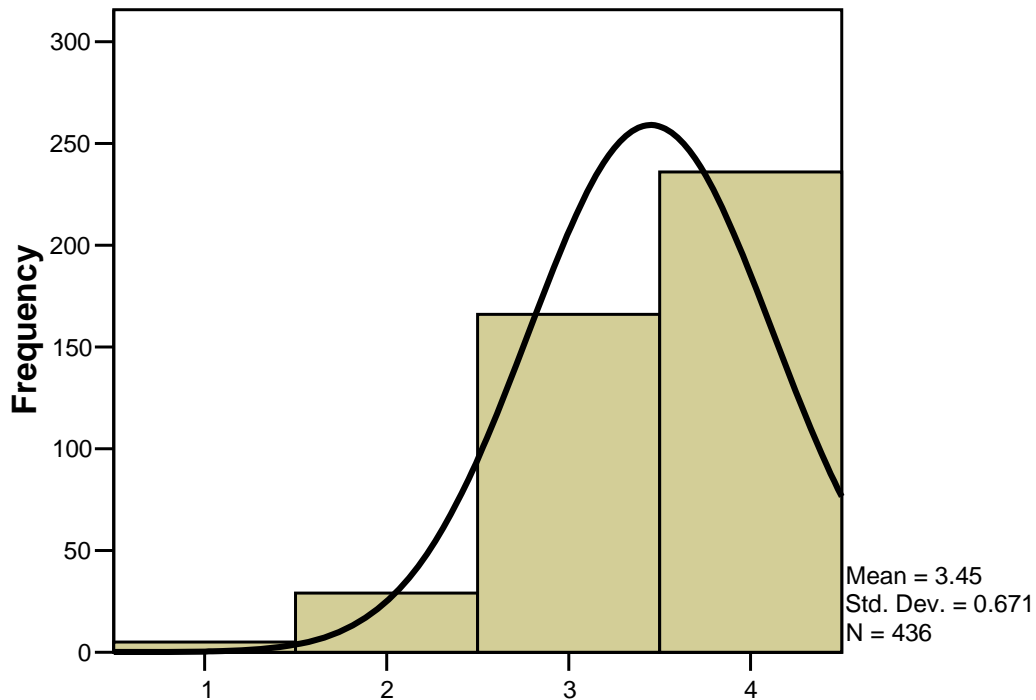


1 = No Improvement; 2 = Small Improvement; 3 = Moderate Improvement; 4 = Substantial Improvement

		Frequency	Percent	Valid Percent
Valid	No Improvement	3	3.7	3.8
	Small Improvement	9	11.1	11.4
	Moderate Improvement	20	24.7	25.3
	Substantial Improvement	47	58.0	59.5
	Total	79	97.5	100.0
Missing	System	2	2.5	
Total		81	100.0	

Evaluate Current Issues and Trends Influencing the Field of Education

Frequency Distribution of Scores



1 = No Improvement; 2 = Small Improvement; 3 = Moderate Improvement; 4 = Great Improvement

		Frequency	Percent	Valid Percent
Valid	No Improvement	5	1.1	1.1
	Small Improvement	29	6.5	6.7
	Moderate Improvement	166	37.2	38.1
	Great Improvement	236	52.9	54.1
	Total	436	97.8	100.0
Missing	System	10	2.2	
Total		446	100.0	

Program Outcome 2

Identify relevant research, read it critically, and evaluate it appropriately.

Direct Measures

- Makes Connections to Previous Research – Capstone Scoring Rubric
- Establishes Need/Contribution/Value to the Field of Study - Capstone Scoring Rubric
- Defines Unique Terminology – Capstone Scoring Rubric
- A Minimum of 25 Scholarly Sources Utilized – Capstone Scoring Rubric
- Are Sufficient in Number to Create the Context for the Problem and to Demonstrate Understanding of the Problem/Issue – Capstone Scoring Rubric

Supporting Measures

- Evaluate Current Research in the Field of Education – Alumni Survey 2006–07
- Evaluate Current Research in the Field of Education – Current Student Survey 2005-06
- Evaluate Current Research in the Field of Education – Alumni Survey 2004-05

Triangulation of Multiple Measures of Student Learning in Program Outcomes

Program Outcome 2: Identify relevant research, read it critically, and evaluate it appropriately

1. Opinion of Measures and Data

Program Outcome 2 is currently measured by:

- Five direct measures obtained from the Capstone Rubric.
- Three supporting measures obtained from the 2006-07 Alumni Survey, 2005-06 Current Student Survey, and 2004-05 Alumni Survey.

The data obtained from those measures appear to be consistent among measures. More than one-half of the students received “Excellent” or “Exemplary” scores on all five direct measures. With regard to the supporting measures, 89.9% of the alumni from 2006-07 and 87.6% of alumni from 2004-05 surveys indicated responses of “Substantial Improvement” or “Moderate Improvement”, while 86.4% of current student responses indicated “Substantial Improvement” or “Moderate Improvement” with regard to this program outcome.

The M.A. in Education faculty can determine the adequacy of the five direct measures of this program outcome for measuring learning. Three other supporting measures are indicated in the Assessment Plan. ORA will be happy to work with the Program Director to implement these measures, if desired.

The data obtained thus far from the direct and supporting measures lend support to a finding by M.A. in Education faculty that student learning in Program Outcome 2 is satisfactory.

Jamie B. Slater, Ed.D.
Director of Organizational Research & Assessment
CMU Off-Campus Programs

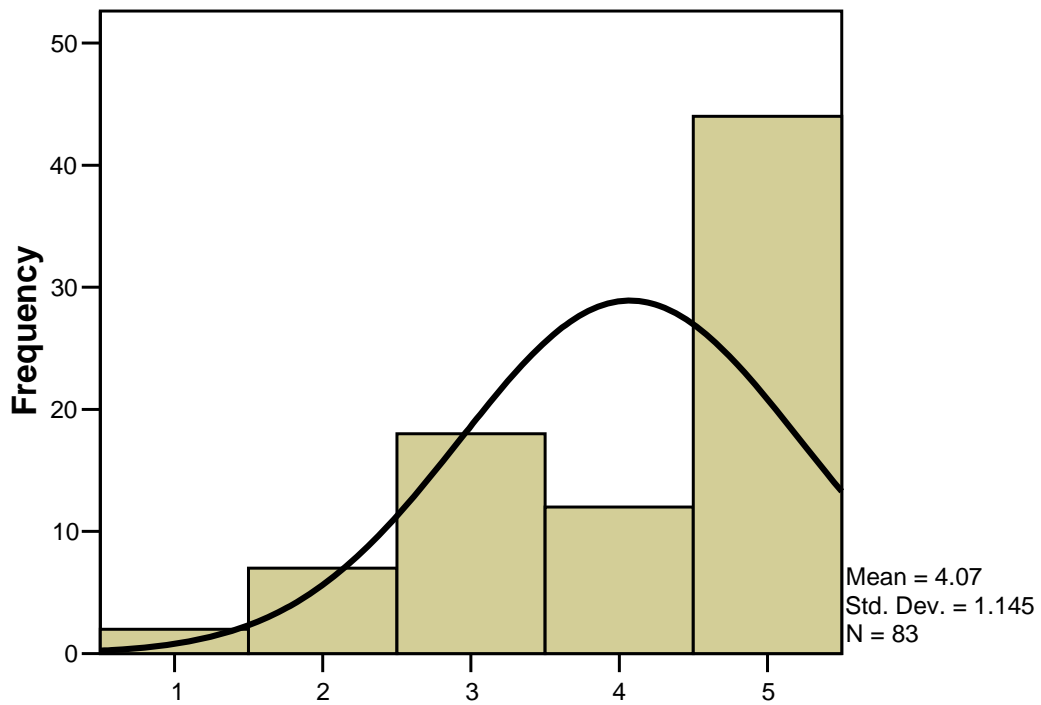
Katherine H. Clendening, M.A.
Research Associate, Organizational Research & Assessment
CMU Off-Campus Programs

2. Opinion of Faculty and Academic Leadership

Direct Measures

Makes Connections to Previous Research

Frequency Distribution of Scores

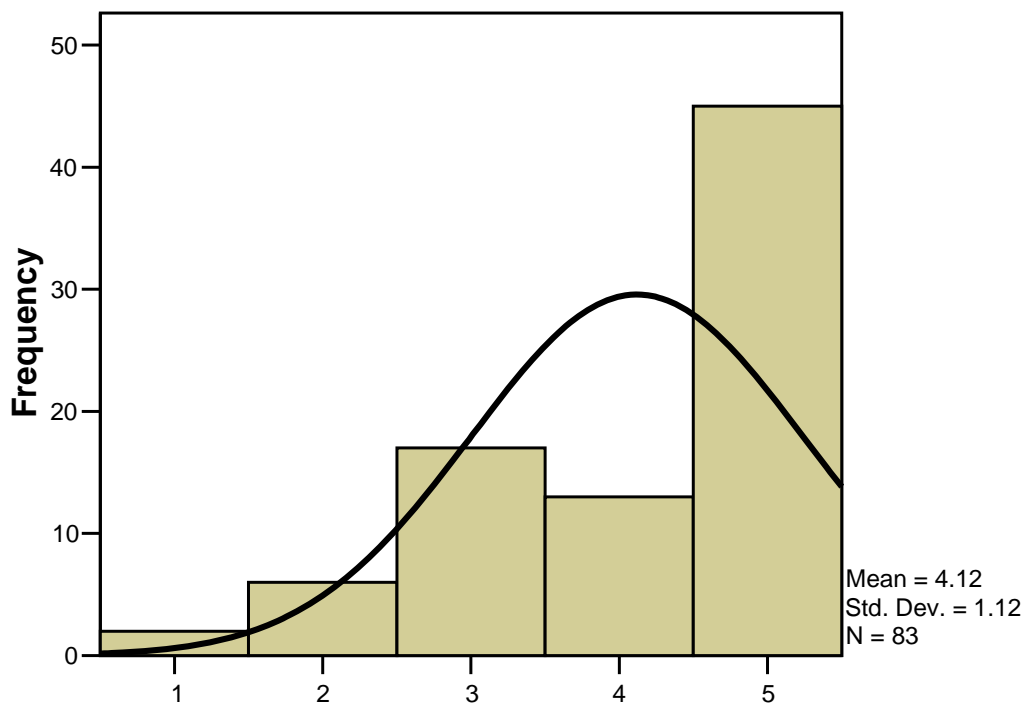


1 = Unsatisfactory; 2 = Satisfactory; 3 = Good; 4 = Excellent; 5 = Exemplary

		Frequency	Percent	Valid Percent
Valid	Unsatisfactory	2	2.2	2.4
	Satisfactory	7	7.8	8.4
	Good	18	20.0	21.7
	Excellent	12	13.3	14.5
	Exemplary	44	48.9	53.0
	Total	83	92.2	100.0
Missing	System	7	7.8	
Total		90	100.0	

Establishes Need/Contribution/Value to the Field of Study

Frequency Distribution of Scores

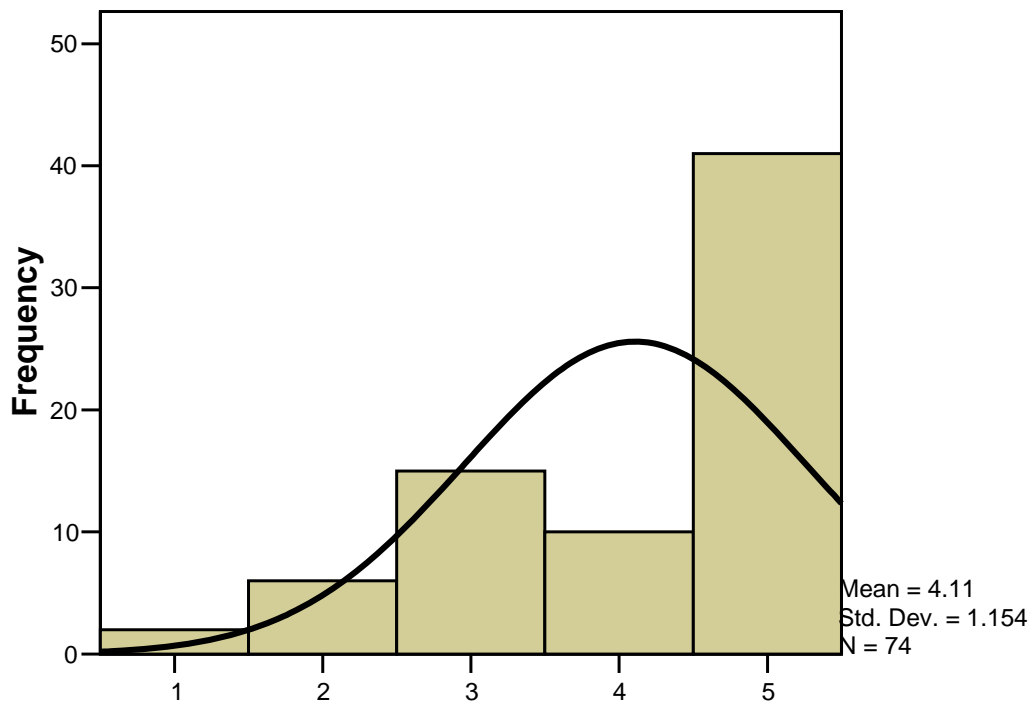


1 = Unsatisfactory; 2 = Satisfactory; 3 = Good; 4 = Excellent; 5 = Exemplary

		Frequency	Percent	Valid Percent
Valid	Unsatisfactory	2	2.2	2.4
	Satisfactory	6	6.7	7.2
	Good	17	18.9	20.5
	Excellent	13	14.4	15.7
	Exemplary	45	50.0	54.2
	Total	83	92.2	100.0
Missing	System	7	7.8	
Total		90	100.0	

Defines Unique Terminology

Frequency Distribution of Scores

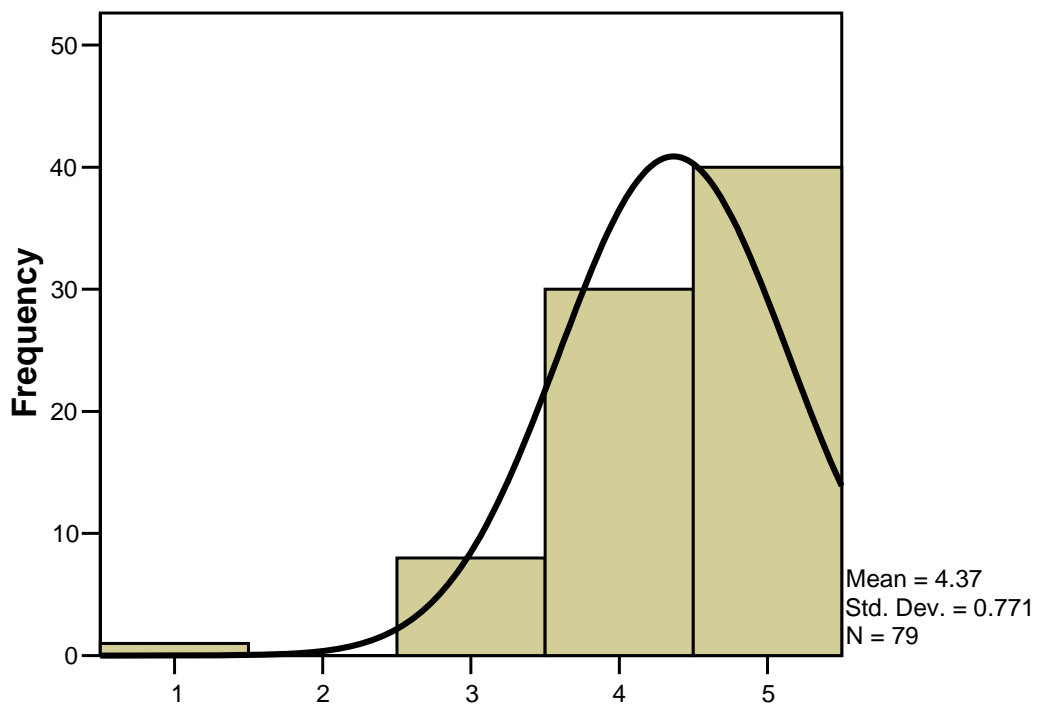


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		Frequency	Percent	Valid Percent
Valid	Unsatisfactory	2	2.2	2.7
	Satisfactory	6	6.7	8.1
	Good	15	16.7	20.3
	Excellent	10	11.1	13.5
	Exemplary	41	45.6	55.4
	Total	74	82.2	100.0
Missing	System	16	17.8	
Total		90	100.0	

A Minimum of 25 Scholarly Sources Utilized

Frequency Distribution of Scores

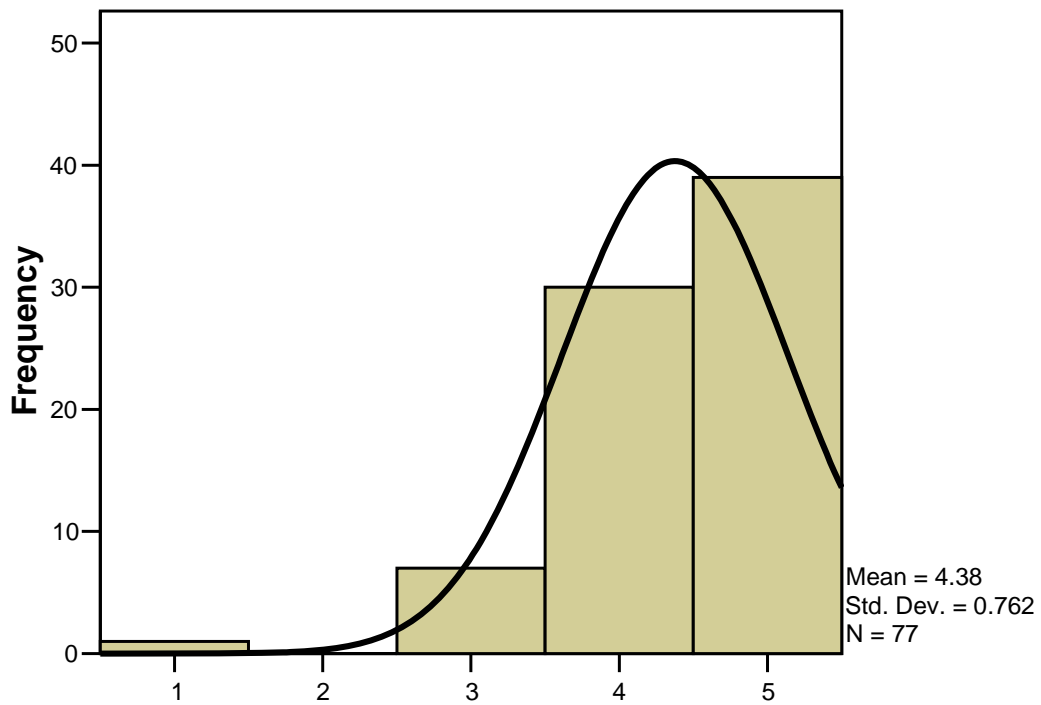


1 = Unsatisfactory; 2 = Satisfactory; 3 = Good; 4 = Excellent; 5 = Exemplary

		Frequency	Percent	Valid Percent
Valid	Unsatisfactory	1	1.1	1.3
	Good	8	8.9	10.1
	Excellent	30	33.3	38.0
	Exemplary	40	44.4	50.6
	Total	79	87.8	100.0
Missing	System	11	12.2	
Total		90	100.0	

Are Sufficient in Number to Create the Context for the Problem and to Demonstrate Understanding of the Problem/Issue

Frequency Distribution of Scores



1 = Unsatisfactory; 2 = Satisfactory; 3 = Good; 4 = Excellent; 5 = Exemplary

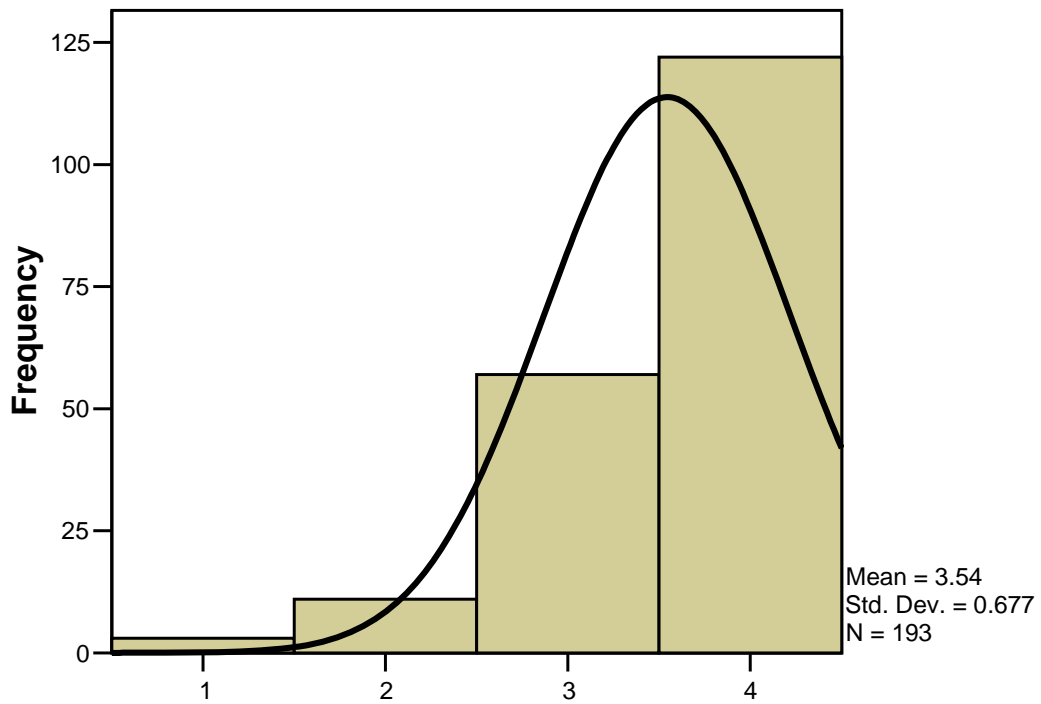
		Frequency	Percent	Valid Percent
Valid	Unsatisfactory	1	1.1	1.3
	Good	7	7.8	9.1
	Excellent	30	33.3	39.0
	Exemplary	39	43.3	50.6
	Total	77	85.6	100.0
Missing	System	13	14.4	
Total		90	100.0	

Supporting Measures

M.A. in Education Alumni Survey 2006 – 2007

Evaluate Current Research in the Field of Education

Frequency Distribution of Scores

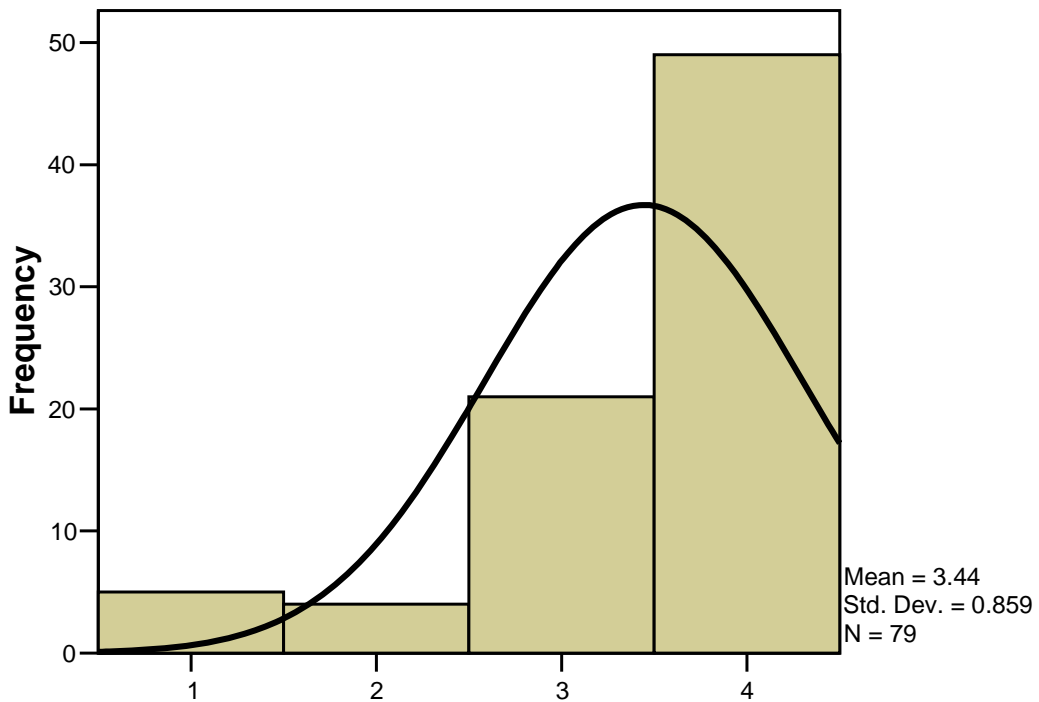


1 = No Improvement; 2 = Small Improvement; 3 = Moderate Improvement; 4 = Substantial Improvement

		Frequency	Percent	Valid Percent
Valid	No Improvement	3	1.5	1.6
	Small Improvement	11	5.5	5.7
	Moderate Improvement	57	28.6	29.5
	Substantial Improvement	122	61.3	63.2
	Total	193	97.0	100.0
Missing	System	6	3.0	
Total		199	100.0	

Evaluate Current Research in the Field of Education

Frequency Distribution of Scores



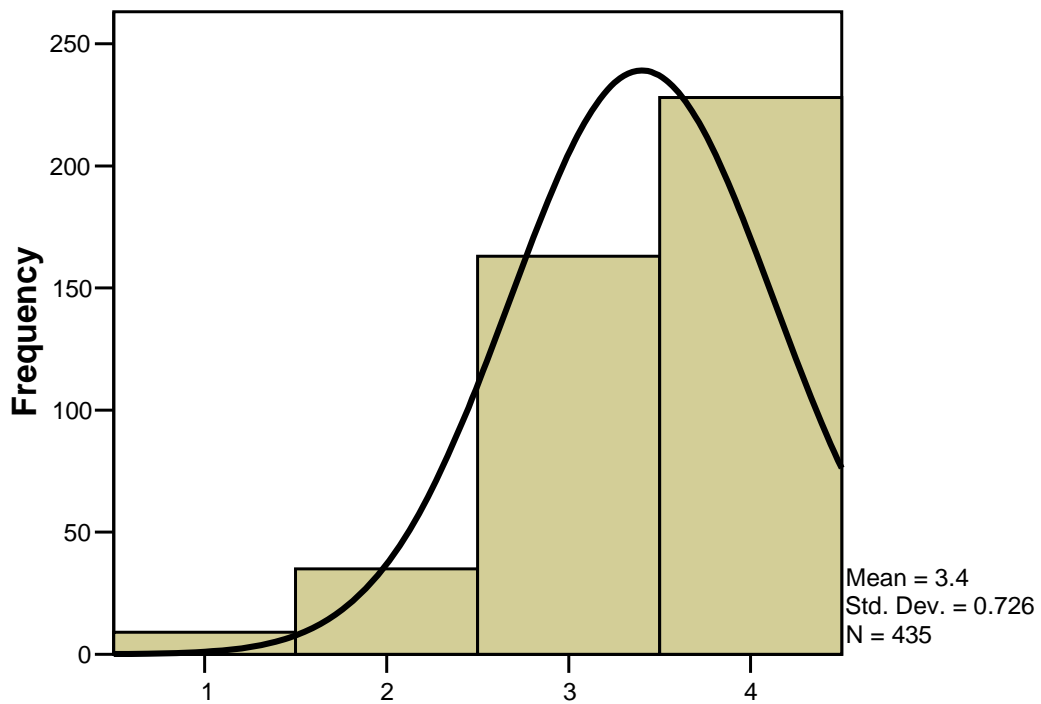
1 = No Improvement; 2 = Small Improvement; 3 = Moderate Improvement; 4 = Substantial Improvement

		Frequency	Percent	Valid Percent
Valid	No Improvement	5	6.2	6.3
	Small Improvement	4	4.9	5.1
	Moderate Improvement	21	25.9	26.6
	Substantial Improvement	49	60.5	62.0
	Total	79	97.5	100.0
Missing	System	2	2.5	
Total		81	100.0	

MA in Education Alumni Survey 2004 - 2005

Evaluate Current Research in the Field of Education

Frequency Distribution of Scores



1 = No Improvement; 2 = Small Improvement; 3 = Moderate Improvement; 4 = Great Improvement

		Frequency	Percent	Valid Percent
Valid	No Improvement	9	2.0	2.1
	Small Improvement	35	7.8	8.0
	Moderate Improvement	163	36.5	37.5
	Great Improvement	228	51.1	52.4
	Total	435	97.5	100.0
Missing	System	11	2.5	
Total		446	100.0	

Program Outcome 3

Conduct applied research: Formulate a researchable question or identify an organizational problem, design and conduct a study using appropriate methodologies, analyze data and draw reasonable conclusions, offer sound recommendations based on those conclusions.

Direct Measures

- Sets out Problem and Purpose of the Research – Capstone Scoring Rubric
- Describes Limitations to the Study – Capstone Scoring Rubric
- Sets out a Context for the Research – Capstone Scoring Rubric
- Evolves in an Organized Process – Capstone Scoring Rubric
- Utilizes and Synthesizes Current, Relevant and Credible Sources – Capstone Scoring Rubric
- Supports the Purpose and Direction of the Research Project – Capstone Scoring Rubric
- Complements the Problem/Purpose – Capstone Scoring Rubric
- Details Methods of Collecting and Analyzing Data – Capstone Scoring Rubric
- Legitimizes Measuring/Survey Instruments to be Used – Capstone Scoring Rubric
- Identifies Sample and Selection Procedures – Capstone Scoring Rubric
- For a Product, Includes the Plan for Monitoring and Evaluation – Capstone Scoring Rubric
- For a Product, Explains Process for Design and Development Specifications, Including Monitoring and Evaluation of the Product – Capstone Scoring Rubric
- Addresses and Explains All the Data Presented and/or Materials – Capstone Scoring Rubric
- Provides Narrative to Explain Tables/Figures and All Items are Referenced in the Product – Capstone Scoring Rubric

- Product Suited the Needs of the Intended Target Population (if a product) – Capstone Scoring Rubric
- Makes Interpretations and Recommendations Based on the Data Provided – Capstone Scoring Rubric
- Integrates Findings of the Literature with Findings of the Study that Relate to the Research Objectives – Capstone Scoring Rubric
- Builds a Sequence of Ideas that Convey a Reasonable Argument – Capstone Scoring Rubric

Program Outcome 3

Conduct applied research: Formulate a researchable question or identify an organizational problem, design and conduct a study using appropriate methodologies, analyze data and draw reasonable conclusions, offer sound recommendations based on those conclusions.

Supporting Measures

- Design and Conduct a Study of an Issue or Problem in the Field of Education –
Alumni Survey 2006-07
- Design and Conduct a Study of an Issue or Problem in the Field of Education –
Current Student Survey 2005-06
- Design and Conduct a Study of an Issue or Problem in the Field of Education –
Alumni Survey 2004-05
- Interpret and Apply Findings of the Study to the Problem or Issue – Alumni Survey 2006-07
- Interpret and Apply Findings of the Study to the Problem or Issue – Current Student
Survey 2005-06
- Interpret and Apply Findings of the Study to the Problem or Issue – Alumni Survey 2004-05

Triangulation of Multiple Measures of Student Learning in Program Outcomes

Program Outcome 3: Conduct applied research: Formulate a researchable question or identify an organizational problem, design and conduct a study using appropriate methodologies, analyze data and draw reasonable conclusions, offer sound recommendations based on those conclusions.

1. Opinion of Measures and Data

Program Outcome 3 is currently measured by:

- Eighteen direct measures obtained from the Capstone Rubric.
- Six supporting measures obtained from the 2006-07 Alumni Survey, 2005-06 Current Student Survey and 2004-05 Alumni Survey.

The data obtained from those measures appear to be consistent among fourteen of the direct measures, resulting in nearly three-fifths of the students receiving “Excellent” or “Exemplary” scores. Four of the measures ranked lower, with one-fifth to one-quarter of the students receiving “Excellent” or “Exemplary” scores. With regard to the supporting measures, nearly nine-tenths (88.4%, 89.0%) of alumni from the 2006-07 survey and more than four-fifths (85.9%, 85.6%) from the 2004-05 survey and current student survey responses (82.8%, 82.7%), indicated “Substantial Improvement” or “Moderate Improvement” with regard to the statements regarding this program outcome.

The M.A. in Education faculty may wish to review the four direct measures that ranked lower in students scores, to determine adequacy of student learning, or of the measure itself. (The “System Missing” category indicates that nearly one-half to over one-half of the faculty did not respond to these measures.)

There are a sufficient number of measures that lend support to a finding by M.A. in Education faculty that student learning in Program Outcome 3 is very satisfactory.

Jamie B. Slater, Ed.D.
Director of Organizational Research & Assessment
CMU Off-Campus Programs

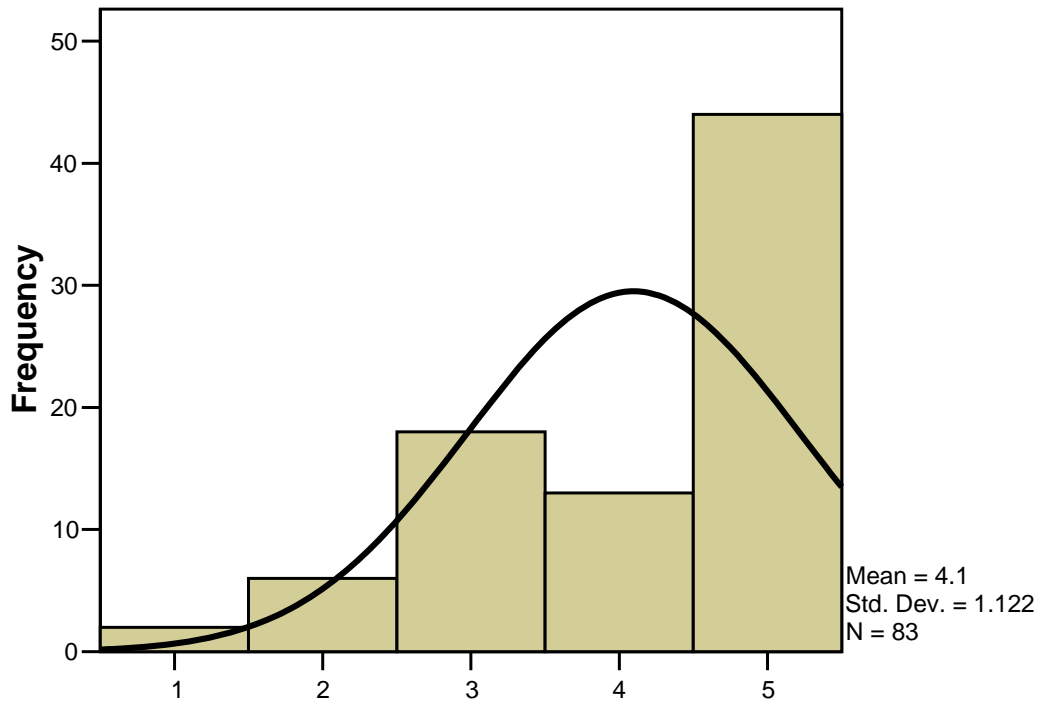
Katherine H. Clendening, M.A.
Research Associate, Organizational Research & Assessment
CMU Off-Campus Programs

2. Opinion of Faculty and Academic Leadership

Direct Measures

Sets Out Problem and Purpose of the Research

Frequency Distribution of Scores

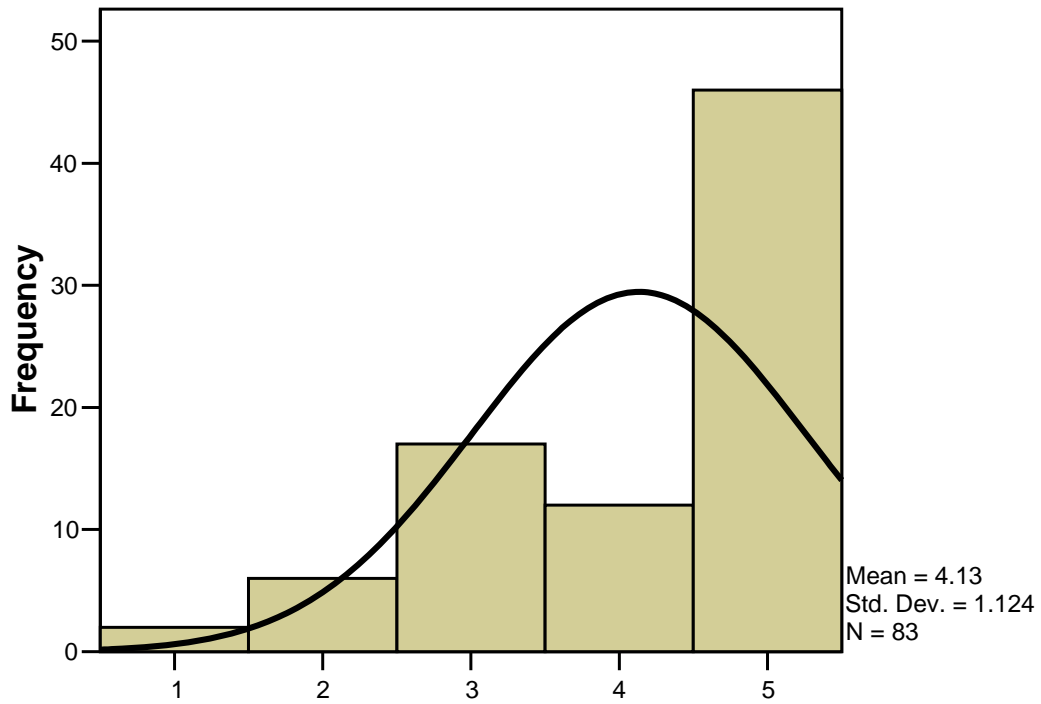


1 = Unsatisfactory; 2 = Satisfactory; 3 = Good; 4 = Excellent; 5 = Exemplary

		Frequency	Percent	Valid Percent
Valid	Unsatisfactory	2	2.2	2.4
	Satisfactory	6	6.7	7.2
	Good	18	20.0	21.7
	Excellent	13	14.4	15.7
	Exemplary	44	48.9	53.0
	Total	83	92.2	100.0
Missing	System	7	7.8	
Total		90	100.0	

Describes Limitations to the Study

Frequency Distribution of Scores

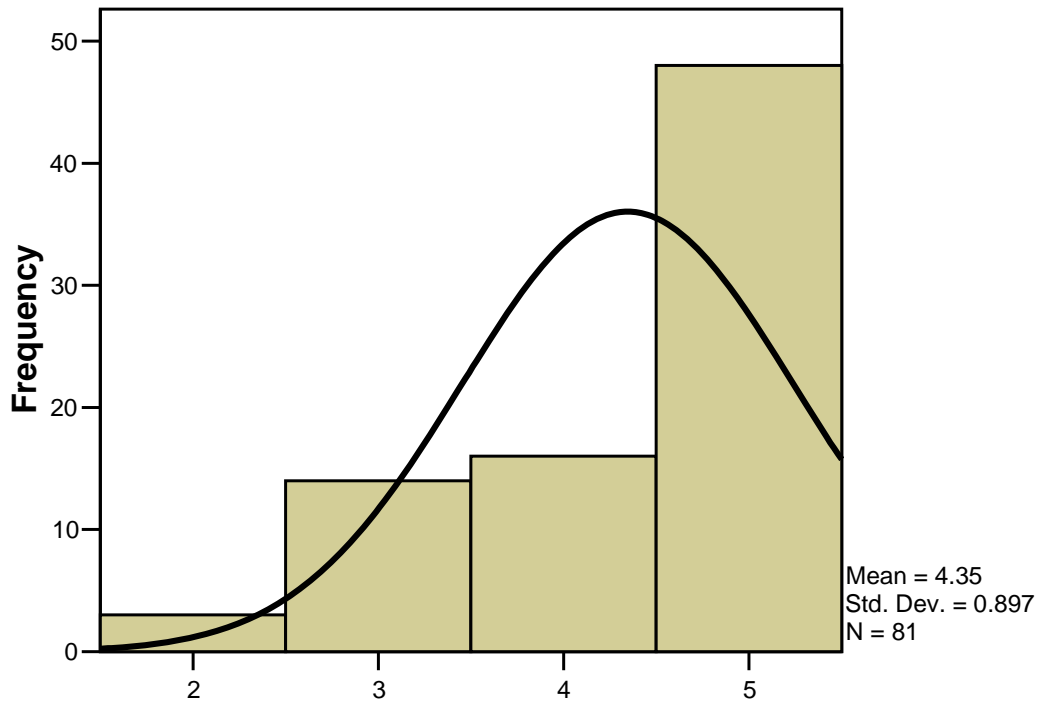


1 = Unsatisfactory; 2 = Satisfactory; 3 = Good; 4 = Excellent; 5 = Exemplary

		Frequency	Percent	Valid Percent
Valid	Unsatisfactory	2	2.2	2.4
	Satisfactory	6	6.7	7.2
	Good	17	18.9	20.5
	Excellent	12	13.3	14.5
	Exemplary	46	51.1	55.4
	Total	83	92.2	100.0
Missing	System	7	7.8	
Total		90	100.0	

Sets out a Context for the Research

Frequency Distribution of Scores

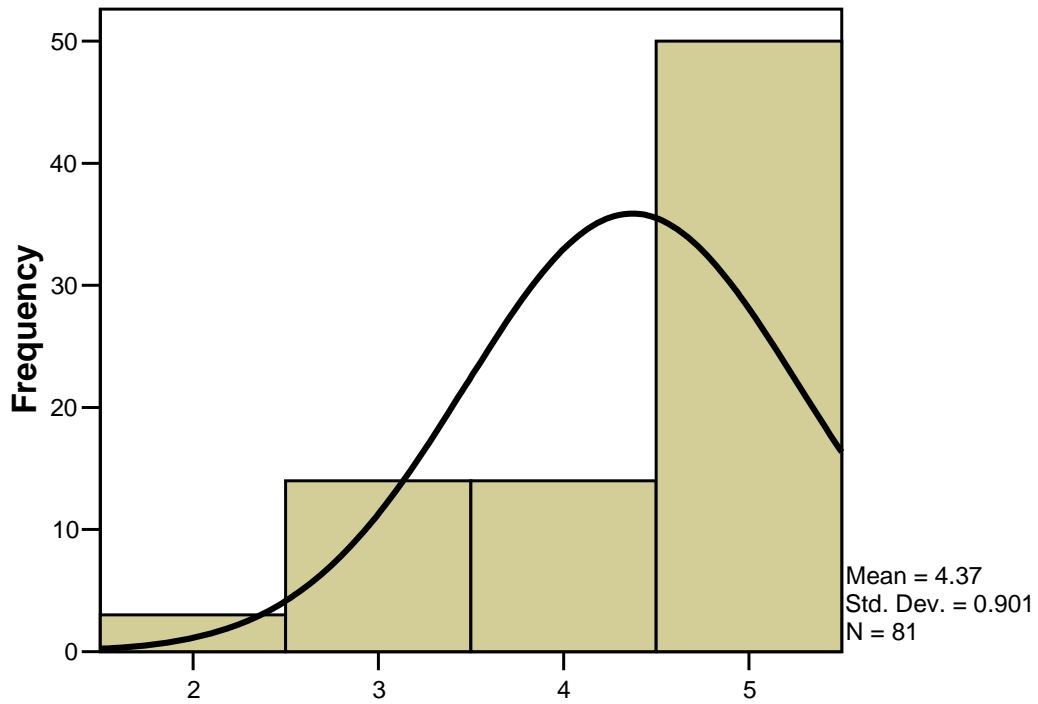


1 = Unsatisfactory; 2 = Satisfactory; 3 = Good; 4 = Excellent; 5 = Exemplary

		Frequency	Percent	Valid Percent
Valid	Satisfactory	3	3.3	3.7
	Good	14	15.6	17.3
	Excellent	16	17.8	19.8
	Exemplary	48	53.3	59.3
	Total	81	90.0	100.0
Missing	System	9	10.0	
Total		90	100.0	

Evolves in an Organized Process

Frequency Distribution of Scores

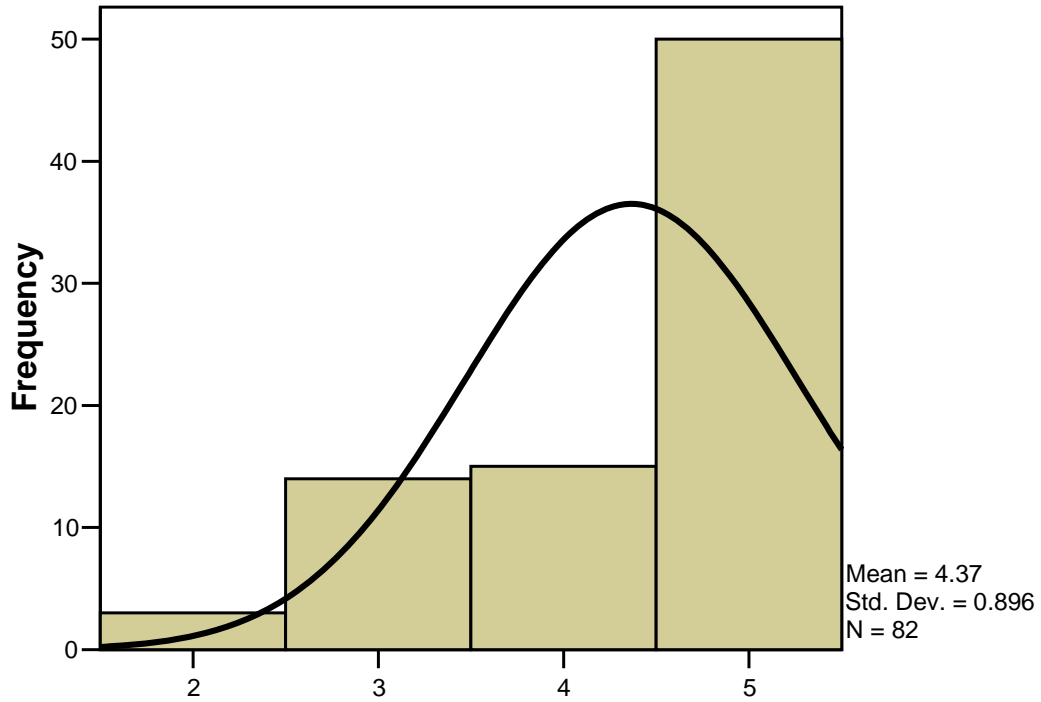


1 = Unsatisfactory; 2 = Satisfactory; 3 = Good; 4 = Excellent; 5 = Exemplary

		Frequency	Percent	Valid Percent
Valid	Satisfactory	3	3.3	3.7
	Good	14	15.6	17.3
	Excellent	14	15.6	17.3
	Exemplary	50	55.6	61.7
	Total	81	90.0	100.0
Missing	System	9	10.0	
Total		90	100.0	

Utilizes and Synthesizes Current, Relevant and Credible Sources

Frequency Distribution of Scores

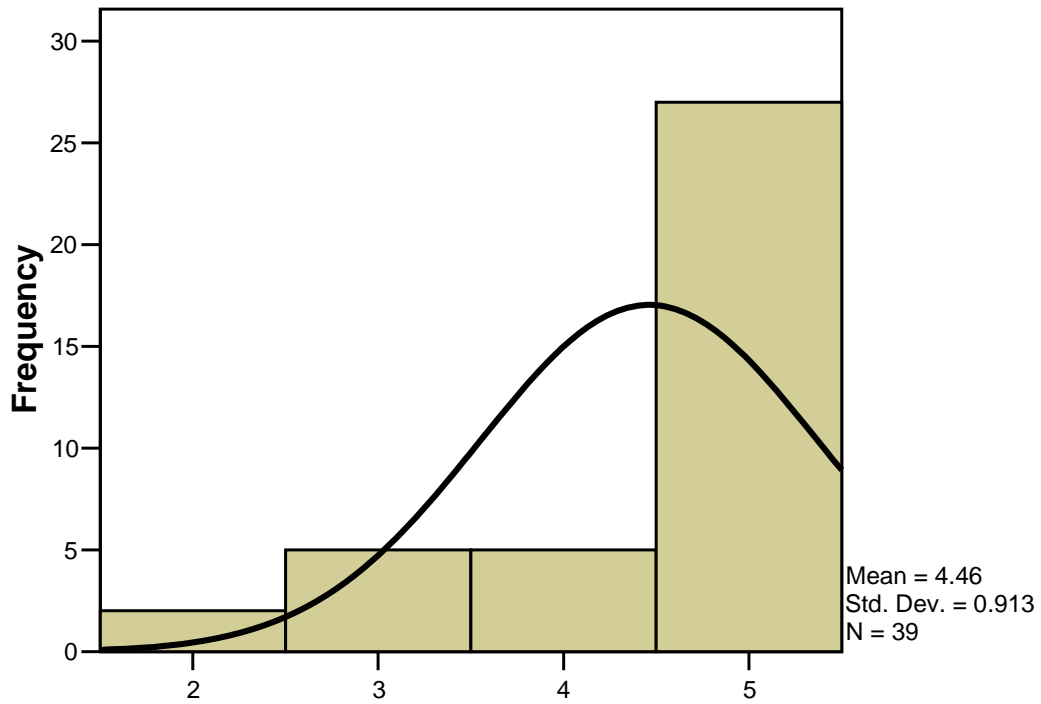


1 = Unsatisfactory; 2 = Satisfactory; 3 = Good; 4 = Excellent; 5 = Exemplary

		Frequency	Percent	Valid Percent
Valid	Satisfactory	3	3.3	3.7
	Good	14	15.6	17.1
	Excellent	15	16.7	18.3
	Exemplary	50	55.6	61.0
	Total	82	91.1	100.0
Missing	System	8	8.9	
Total		90	100.0	

Supports the Purpose and Direction of the Research Project

Frequency Distribution of Scores

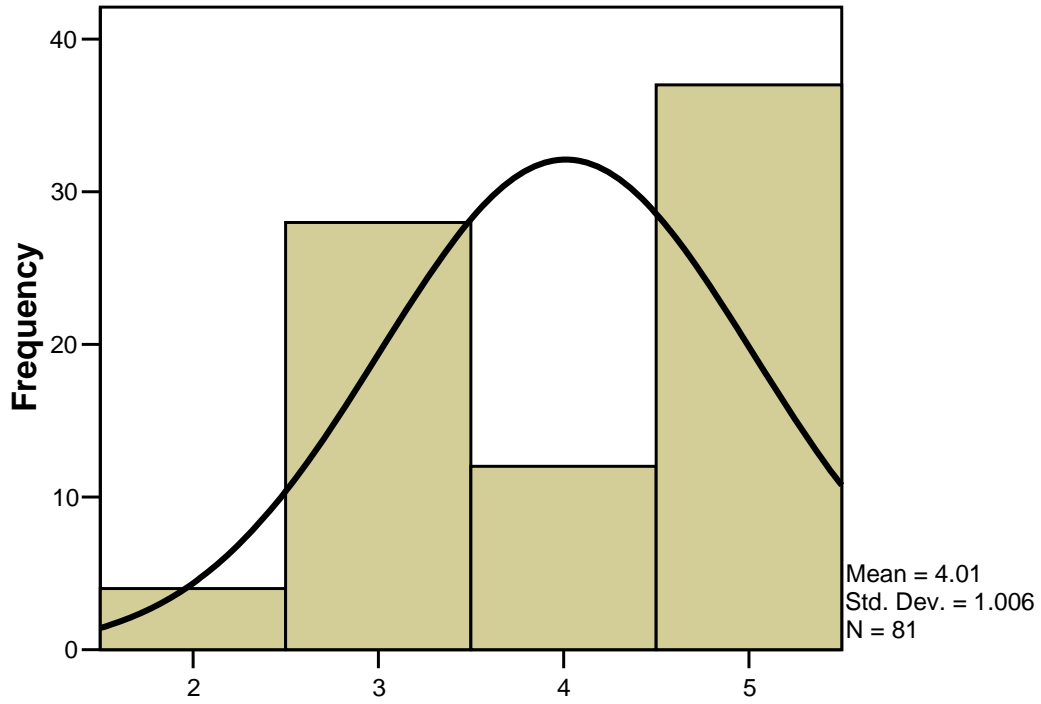


1 = Unsatisfactory; 2 = Satisfactory; 3 = Good; 4 = Excellent; 5 = Exemplary

		Frequency	Percent	Valid Percent
Valid	Satisfactory	2	2.2	5.1
	Good	5	5.6	12.8
	Excellent	5	5.6	12.8
	Exemplary	27	30.0	69.2
	Total	39	43.3	100.0
Missing	System	51	56.7	
Total		90	100.0	

Complements the Problem/Purpose

Frequency Distribution of Scores

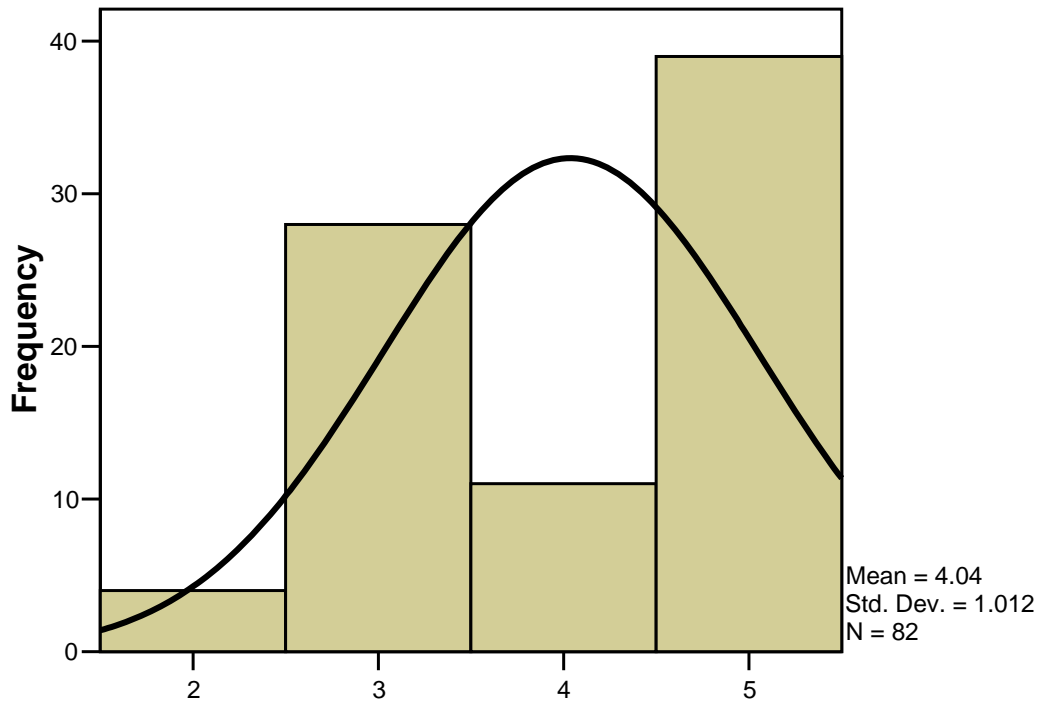


1 = Unsatisfactory; 2 = Satisfactory; 3 = Good; 4 = Excellent; 5 = Exemplary

		Frequency	Percent	Valid Percent
Valid	Satisfactory	4	4.4	4.9
	Good	28	31.1	34.6
	Excellent	12	13.3	14.8
	Exemplary	37	41.1	45.7
	Total	81	90.0	100.0
Missing	System	9	10.0	
Total		90	100.0	

Details Methods of Collecting and Analyzing Data

Frequency Distribution of Scores

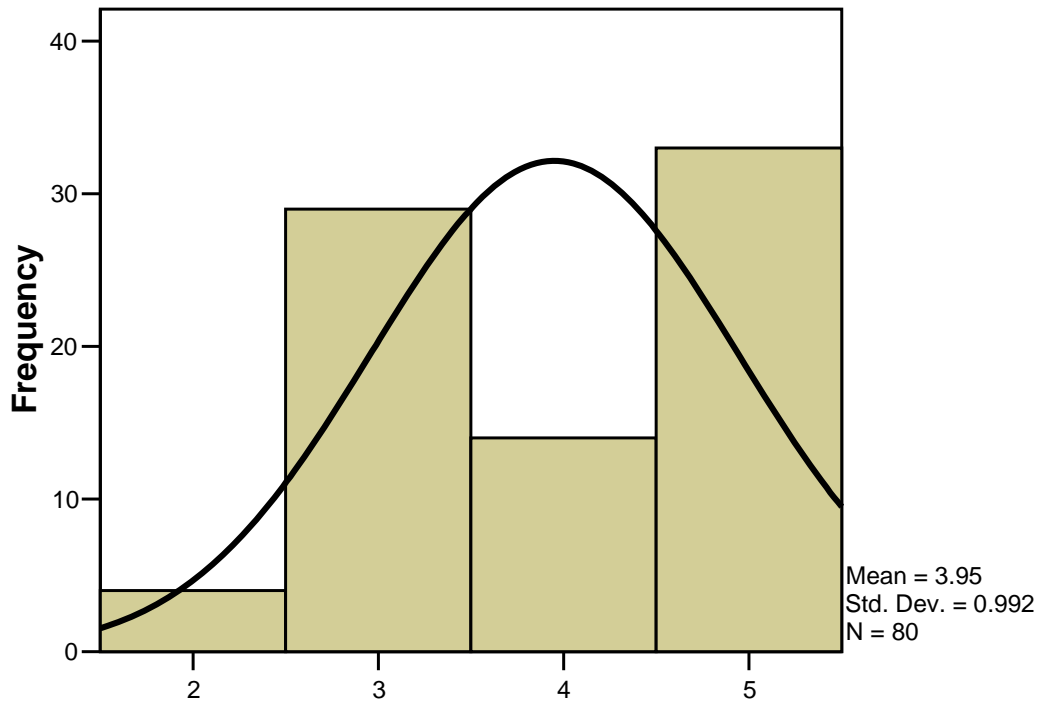


1 = Unsatisfactory; 2 = Satisfactory; 3 = Good; 4 = Excellent; 5 = Exemplary

		Frequency	Percent	Valid Percent
Valid	Satisfactory	4	4.4	4.9
	Good	28	31.1	34.1
	Excellent	11	12.2	13.4
	Exemplary	39	43.3	47.6
	Total	82	91.1	100.0
Missing	System	8	8.9	
Total		90	100.0	

Legitimizes Measuring/Survey Instruments to be Used

Frequency Distribution of Scores

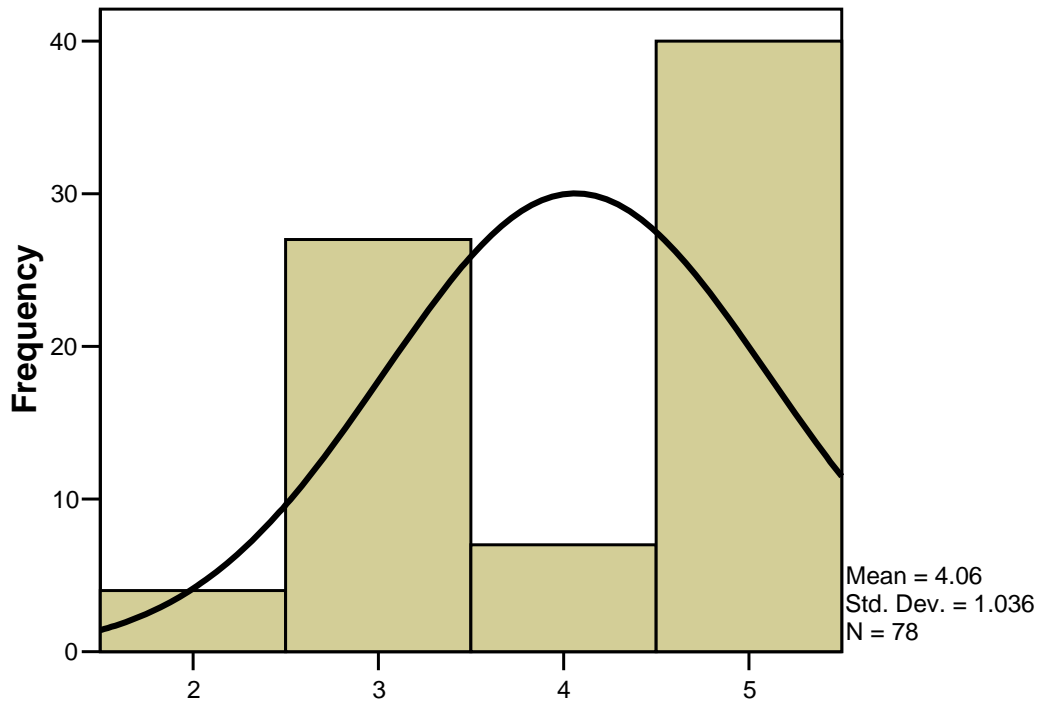


1 = Unsatisfactory; 2 = Satisfactory; 3 = Good; 4 = Excellent; 5 = Exemplary

		Frequency	Percent	Valid Percent
Valid	Satisfactory	4	4.4	5.0
	Good	29	32.2	36.3
	Excellent	14	15.6	17.5
	Exemplary	33	36.7	41.3
	Total	80	88.9	100.0
Missing	System	10	11.1	
Total		90	100.0	

Identifies Sample and Selection Procedures

Frequency Distribution of Scores

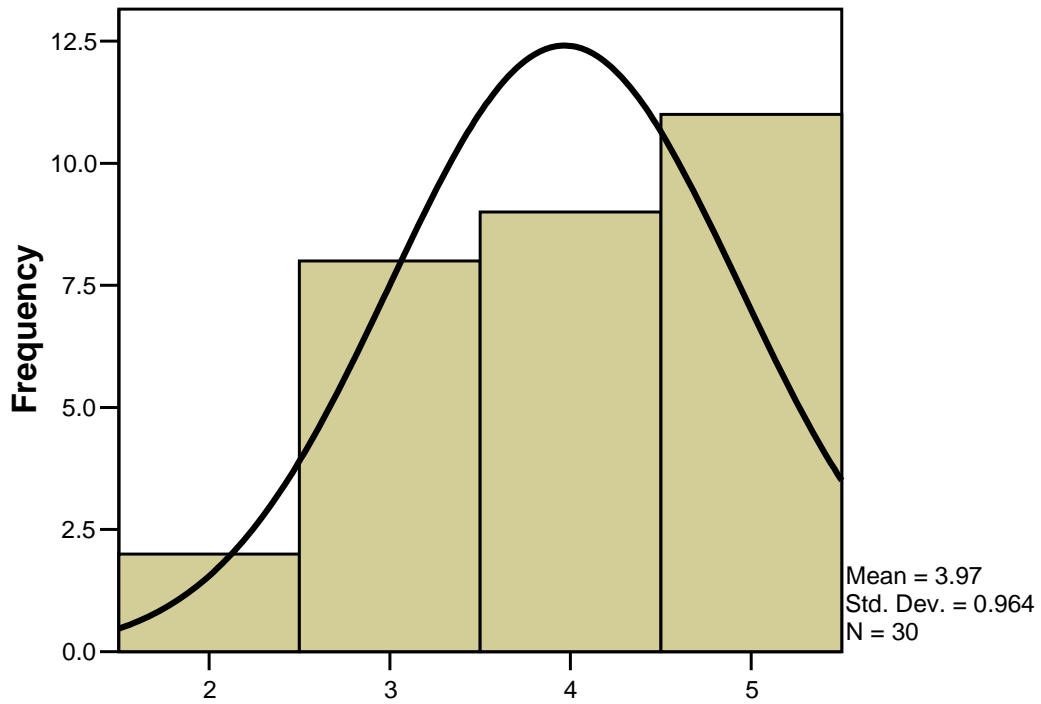


1 = Unsatisfactory; 2 = Satisfactory; 3 = Good; 4 = Excellent; 5 = Exemplary

		Frequency	Percent	Valid Percent
Valid	Satisfactory	4	4.4	5.1
	Good	27	30.0	34.6
	Excellent	7	7.8	9.0
	Exemplary	40	44.4	51.3
	Total	78	86.7	100.0
Missing	System	12	13.3	
Total		90	100.0	

For a Product, Includes the Plan for Monitoring and Evaluation

Frequency Distribution of Scores

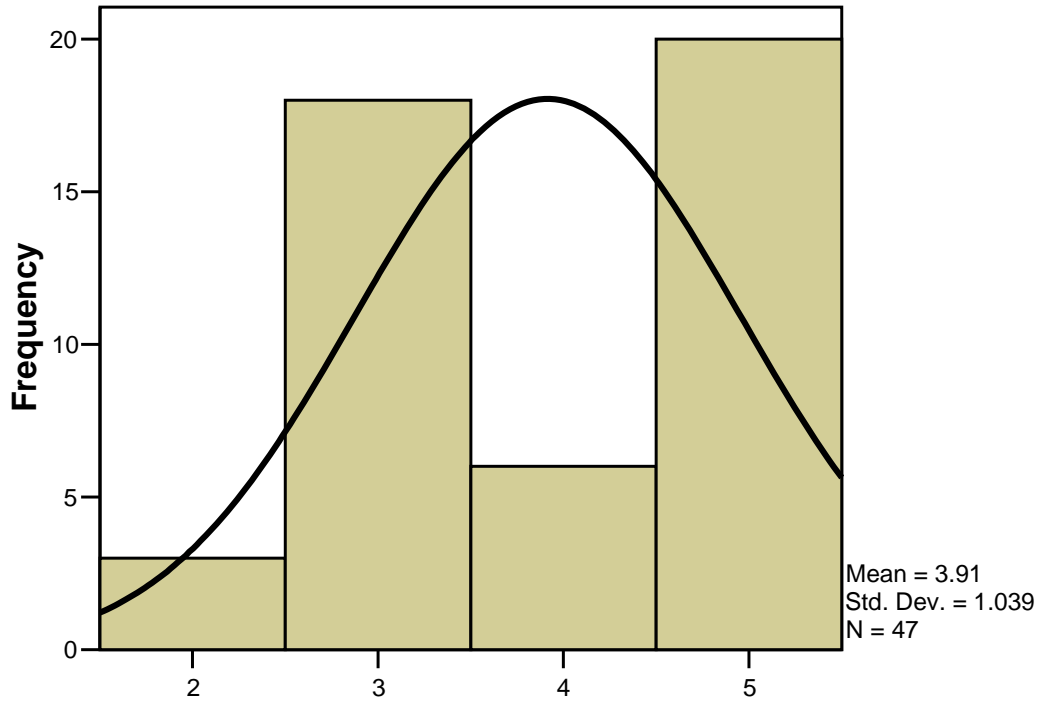


1 = Unsatisfactory; 2 = Satisfactory; 3 = Good; 4 = Excellent; 5 = Exemplary

		Frequency	Percent	Valid Percent
Valid	Satisfactory	2	2.2	6.7
	Good	8	8.9	26.7
	Excellent	9	10.0	30.0
	Exemplary	11	12.2	36.7
	Total	30	33.3	100.0
Missing	System	60	66.7	
Total		90	100.0	

For a Product, Explains Process for Design and Development Specifications, Including Monitoring and Evaluation of the Product

Frequency Distribution of Scores

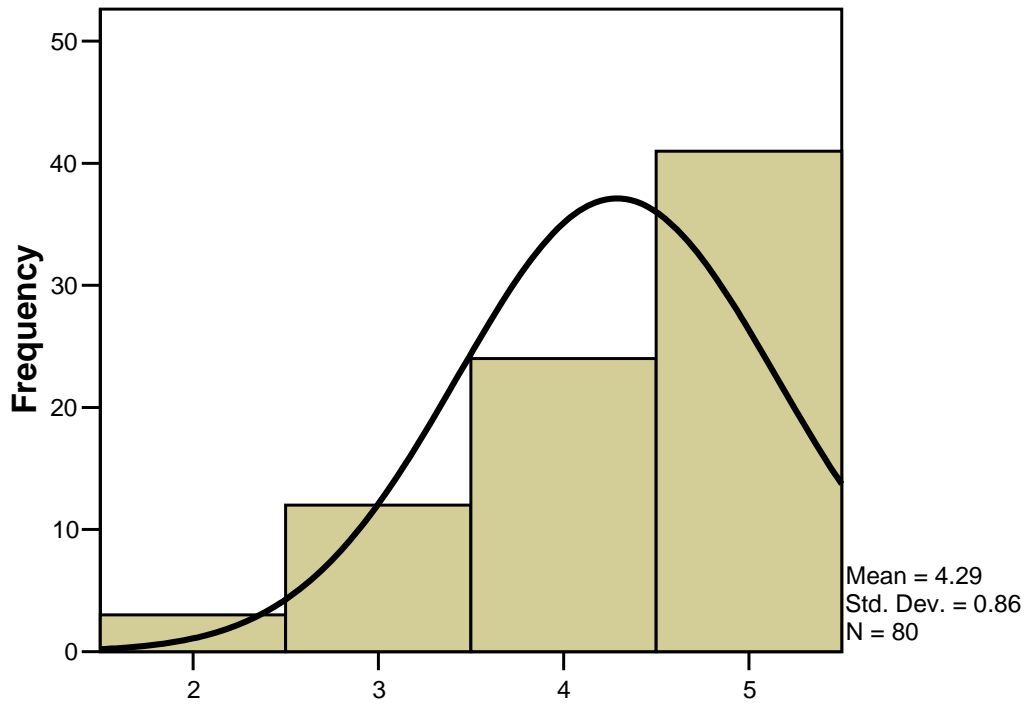


1 = Unsatisfactory; 2 = Satisfactory; 3 = Good; 4 = Excellent; 5 = Exemplary

		Frequency	Percent	Valid Percent
Valid	Satisfactory	3	3.3	6.4
	Good	18	20.0	38.3
	Excellent	6	6.7	12.8
	Exemplary	20	22.2	42.6
	Total	47	52.2	100.0
Missing	System	43	47.8	
Total		90	100.0	

Addresses and Explains All the Data Presented and/or Materials

Frequency Distribution of Scores

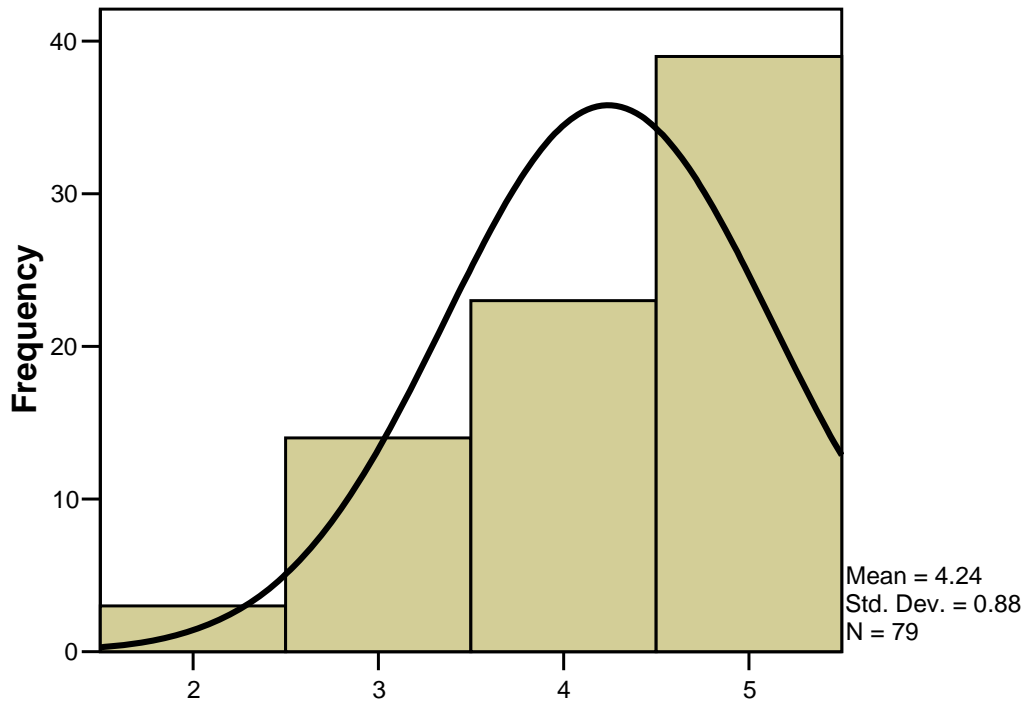


1 = Unsatisfactory; 2 = Satisfactory; 3 = Good; 4 = Excellent; 5 = Exemplary

		Frequency	Percent	Valid Percent
Valid	Satisfactory	3	3.3	3.8
	Good	12	13.3	15.0
	Excellent	24	26.7	30.0
	Exemplary	41	45.6	51.3
	Total	80	88.9	100.0
Missing	System	10	11.1	
Total		90	100.0	

Provides Narrative to Explain Tables/Figures and All Items are Referenced in the Product

Frequency Distribution of Scores

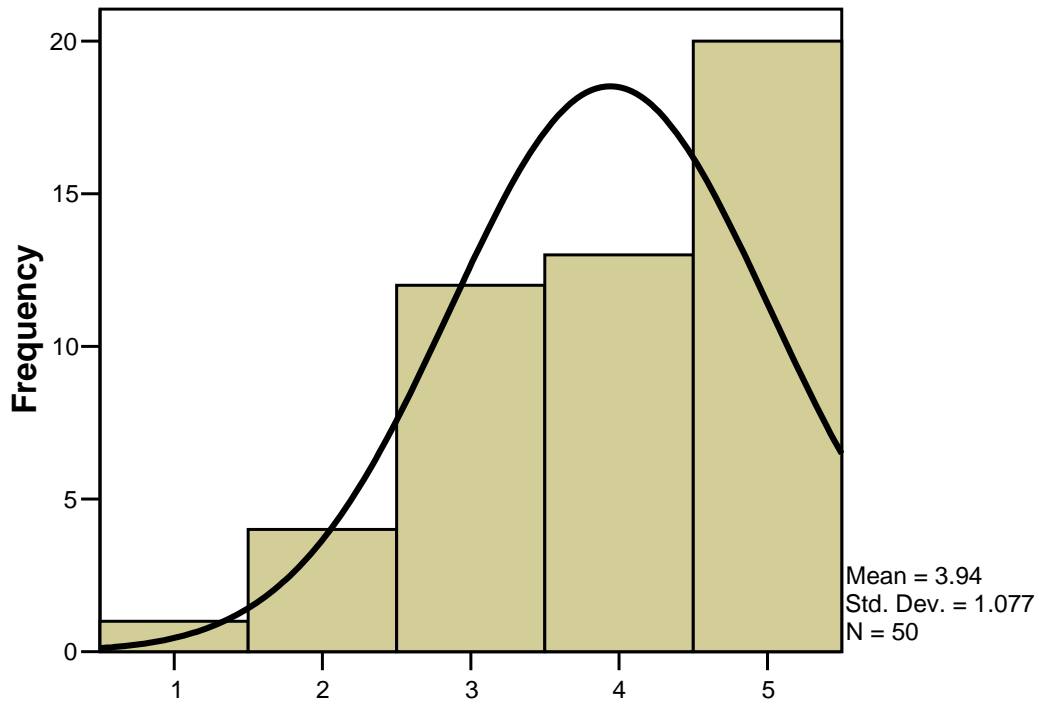


1 = Unsatisfactory; 2 = Satisfactory; 3 = Good; 4 = Excellent; 5 = Exemplary

		Frequency	Percent	Valid Percent
Valid	Satisfactory	3	3.3	3.8
	Good	14	15.6	17.7
	Excellent	23	25.6	29.1
	Exemplary	39	43.3	49.4
	Total	79	87.8	100.0
Missing	System	11	12.2	
Total		90	100.0	

Product Suited the Needs of the Intended Target Population (if a product)

Frequency Distribution of Scores

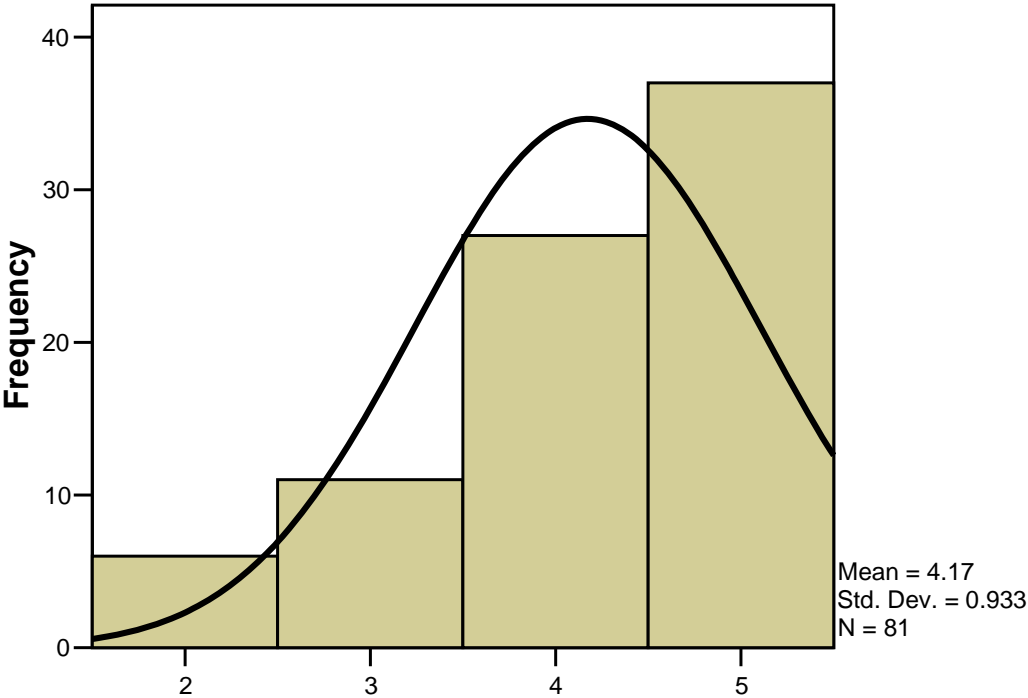


1 = Unsatisfactory; 2 = Satisfactory; 3 = Good; 4 = Excellent; 5 = Exemplary

		Frequency	Percent	Valid Percent
Valid	Unsatisfactory	1	1.1	2.0
	Satisfactory	4	4.4	8.0
	Good	12	13.3	24.0
	Excellent	13	14.4	26.0
	Exemplary	20	22.2	40.0
	Total	50	55.6	100.0
Missing	System	40	44.4	
Total		90	100.0	

Makes Interpretations and Recommendations Based on the Data Provided

Frequency Distribution of Scores

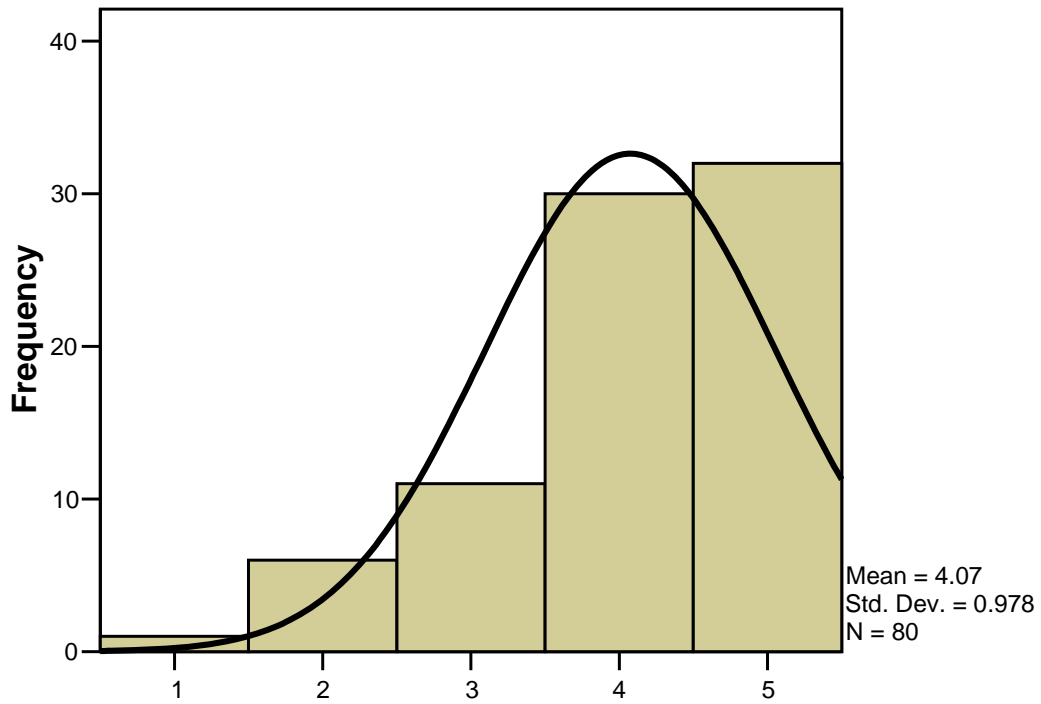


1 = Unsatisfactory; 2 = Satisfactory; 3 = Good; 4 = Excellent; 5 = Exemplary

		Frequency	Percent	Valid Percent
Valid	Satisfactory	6	6.7	7.4
	Good	11	12.2	13.6
	Excellent	27	30.0	33.3
	Exemplary	37	41.1	45.7
	Total	81	90.0	100.0
Missing	System	9	10.0	
Total		90	100.0	

Integrates Findings of the Literature with Findings of the Study that Relate to the Research Objectives

Frequency Distribution of Scores

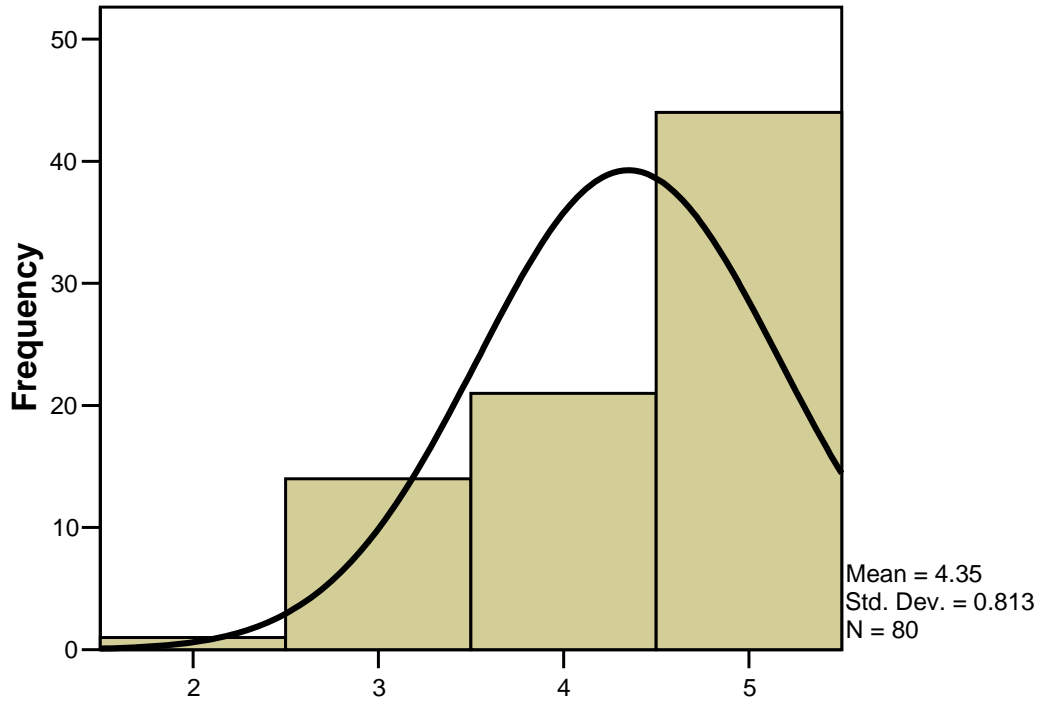


1 = Unsatisfactory; 2 = Satisfactory; 3 = Good; 4 = Excellent; 5 = Exemplary

		Frequency	Percent	Valid Percent
Valid	Unsatisfactory	1	1.1	1.3
	Satisfactory	6	6.7	7.5
	Good	11	12.2	13.8
	Excellent	30	33.3	37.5
	Exemplary	32	35.6	40.0
	Total	80	88.9	100.0
Missing	System	10	11.1	
Total		90	100.0	

Builds a Sequence of Ideas that Convey a Reasonable Argument

Frequency Distribution of Scores



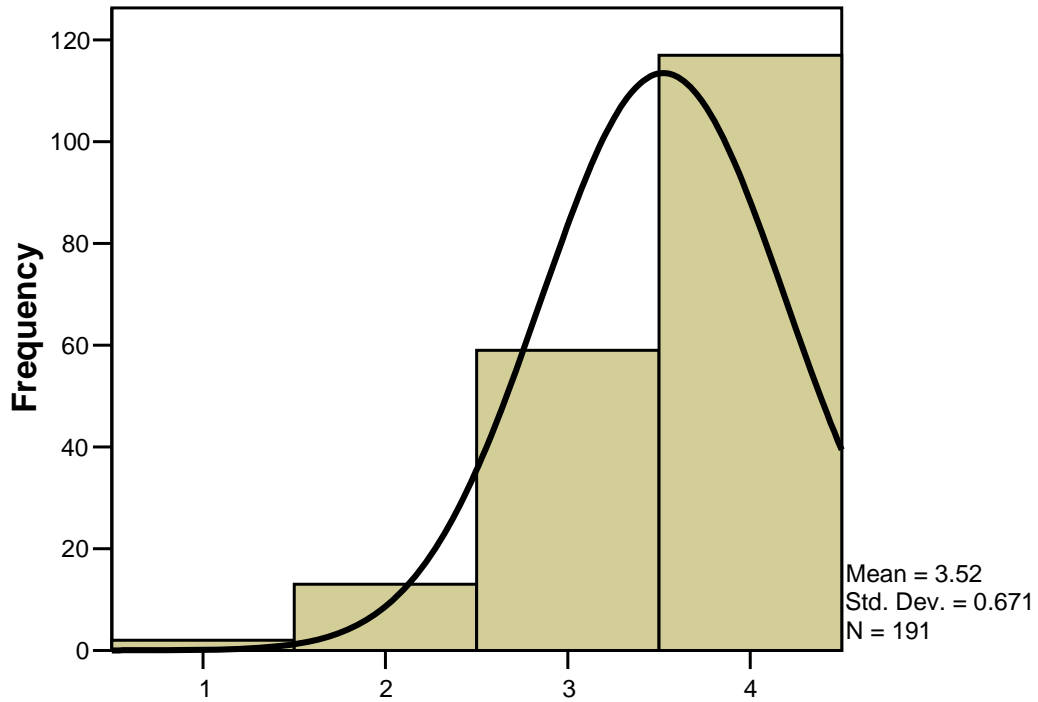
1 = Unsatisfactory; 2 = Satisfactory; 3 = Good; 4 = Excellent; 5 = Exemplary

		Frequency	Percent	Valid Percent
Valid	Satisfactory	1	1.1	1.3
	Good	14	15.6	17.5
	Excellent	21	23.3	26.3
	Exemplary	44	48.9	55.0
	Total	80	88.9	100.0
Missing	System	10	11.1	
Total		90	100.0	

Supporting Measures

Design and Conduct a Study of an Issue or Problem in the Field of Education

Frequency Distribution of Scores

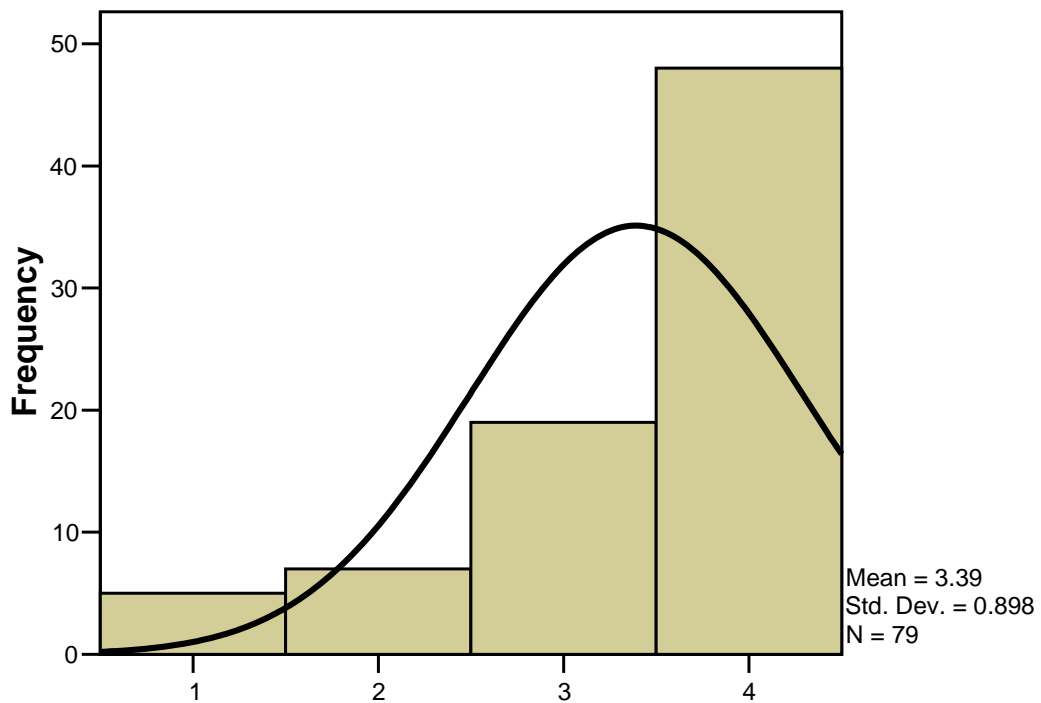


1 = No Improvement; 2 = Small Improvement; 3 = Moderate Improvement; 4 = Substantial Improvement

		Frequency	Percent	Valid Percent
Valid	No Improvement	2	1.0	1.0
	Small Improvement	13	6.5	6.8
	Moderate Improvement	59	29.6	30.9
	Substantial Improvement	117	58.8	61.3
	Total	191	96.0	100.0
Missing	System	8	4.0	
Total		199	100.0	

Design and Conduct a Study of an Issue or Problem in the Field of Education

Frequency Distribution of Scores

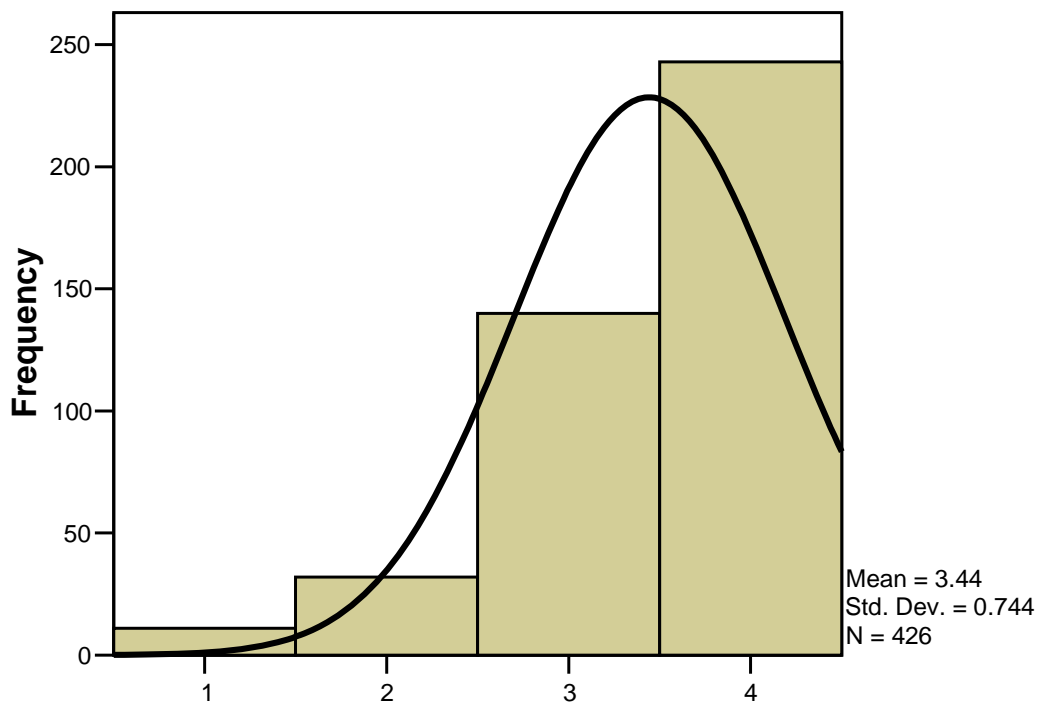


1 = No Improvement; 2 = Small Improvement; 3 = Moderate Improvement; 4 = Substantial Improvement

		Frequency	Percent	Valid Percent
Valid	No Improvement	5	6.2	6.3
	Small Improvement	7	8.6	8.9
	Moderate Improvement	19	23.5	24.1
	Substantial Improvement	48	59.3	60.8
	Total	79	97.5	100.0
Missing	System	2	2.5	
Total		81	100.0	

Design and Conduct a Study of an Issue or Problem in the Field of Education

Frequency Distribution of Scores

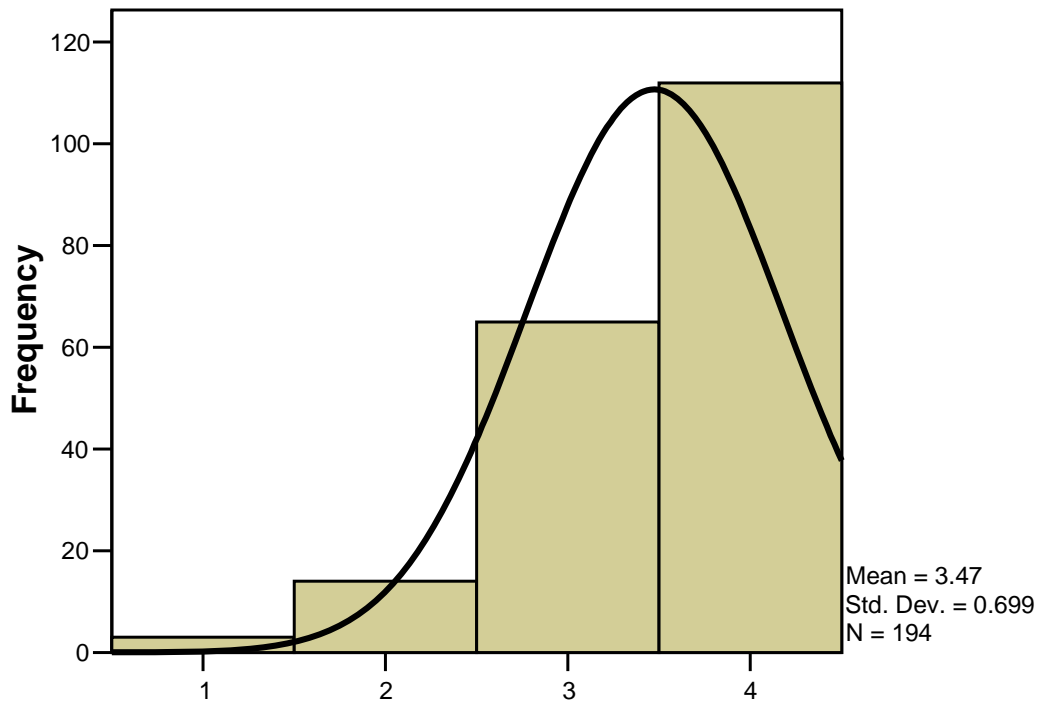


1 = No Improvement; 2 = Small Improvement; 3 = Moderate Improvement; 4 = Great Improvement

		Frequency	Percent	Valid Percent
Valid	No Improvement	11	2.5	2.6
	Small Improvement	32	7.2	7.5
	Moderate Improvement	140	31.4	32.9
	Great Improvement	243	54.5	57.0
	Total	426	95.5	100.0
Missing	System	20	4.5	
Total		446	100.0	

Interpret and Apply Findings of the Study to the Problem in the Field of Education

Frequency Distribution of Scores

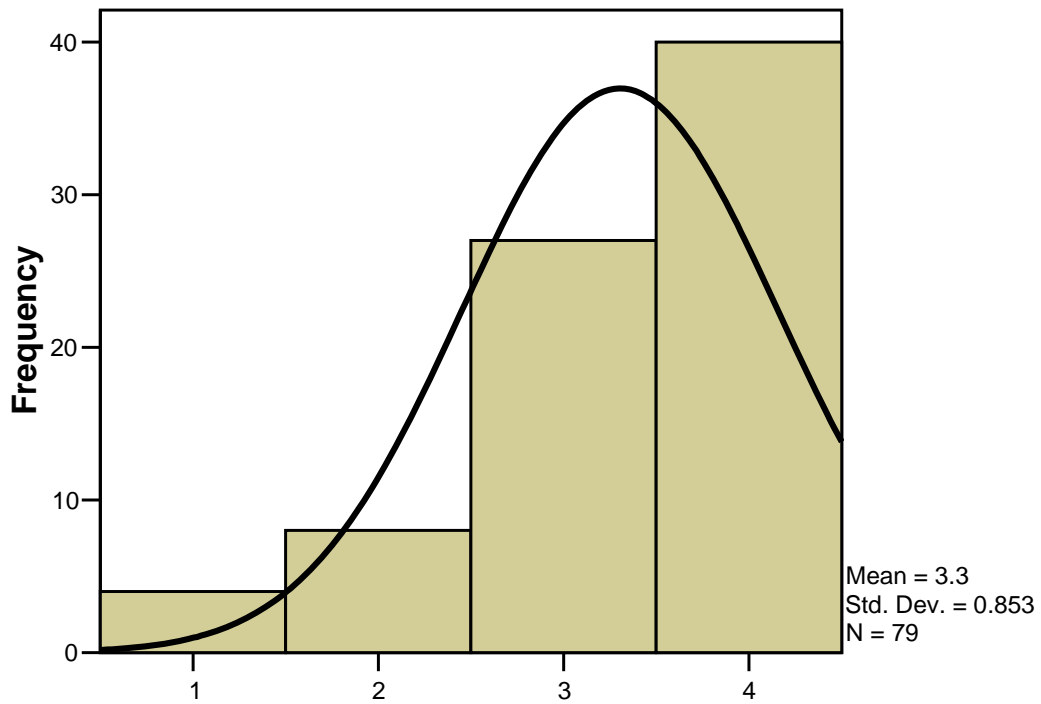


1 = No Improvement; 2 = Small Improvement; 3 = Moderate Improvement; 4 = Substantial Improvement

		Frequency	Percent	Valid Percent
Valid	No Improvement	3	1.5	1.5
	Small Improvement	14	7.0	7.2
	Moderate Improvement	65	32.7	33.5
	Substantial Improvement	112	56.3	57.7
	Total	194	97.5	100.0
Missing	System	5	2.5	
Total		199	100.0	

Interpret and Apply Findings of the Study to the Problem or Issue

Frequency Distribution of Scores



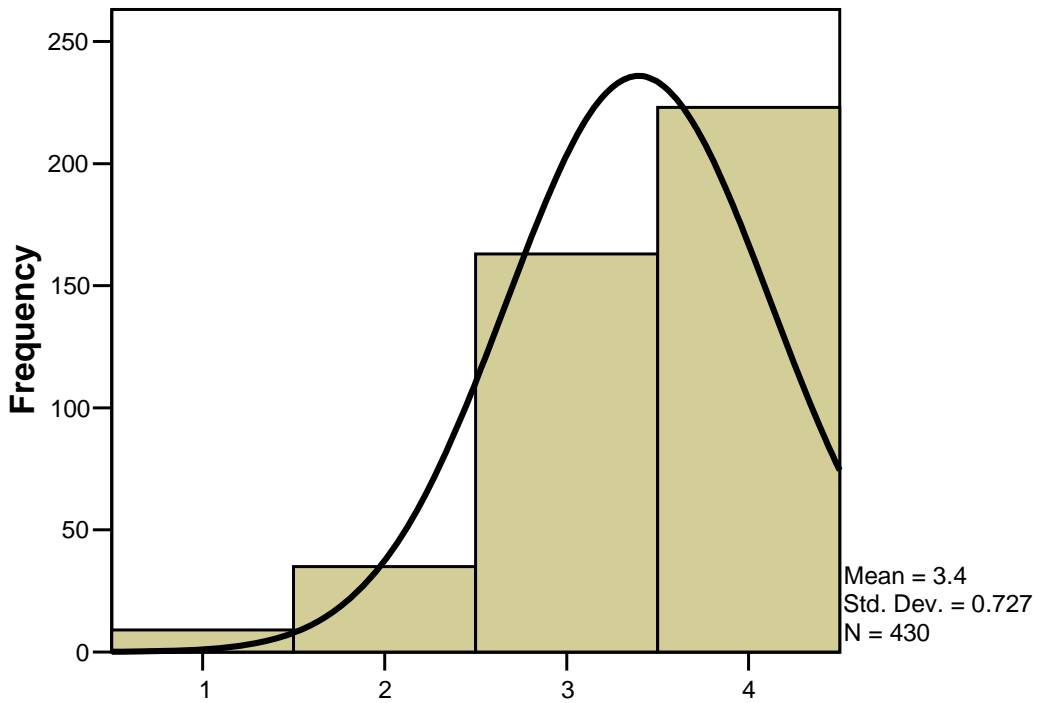
1 = No Improvement; 2 = Small Improvement; 3 = Moderate Improvement; 4 = Substantial Improvement

		Frequency	Percent	Valid Percent
Valid	No Improvement	4	4.9	5.1
	Small Improvement	8	9.9	10.1
	Moderate Improvement	27	33.3	34.2
	Substantial Improvement	40	49.4	50.6
	Total	79	97.5	100.0
Missing	System	2	2.5	
Total		81	100.0	

MA in Education Alumni Survey 2004 - 2005

Interpret and Apply Findings of the Study to the Problem or Issue

Frequency Distribution of Scores



1 = No Improvement; 2 = Small Improvement; 3 = Moderate Improvement; 4 = Great Improvement

		Frequency	Percent	Valid Percent
Valid	No Improvement	9	2.0	2.1
	Small Improvement	35	7.8	8.1
	Moderate Improvement	163	36.5	37.9
	Great Improvement	223	50.0	51.9
	Total	430	96.4	100.0
Missing	System	16	3.6	
Total		446	100.0	

Program Outcome 4

Design appropriate and effective curricula and instructional strategies that are informed by current theories of learning and pedagogy, including meeting the needs of diverse learners.

Direct Measures

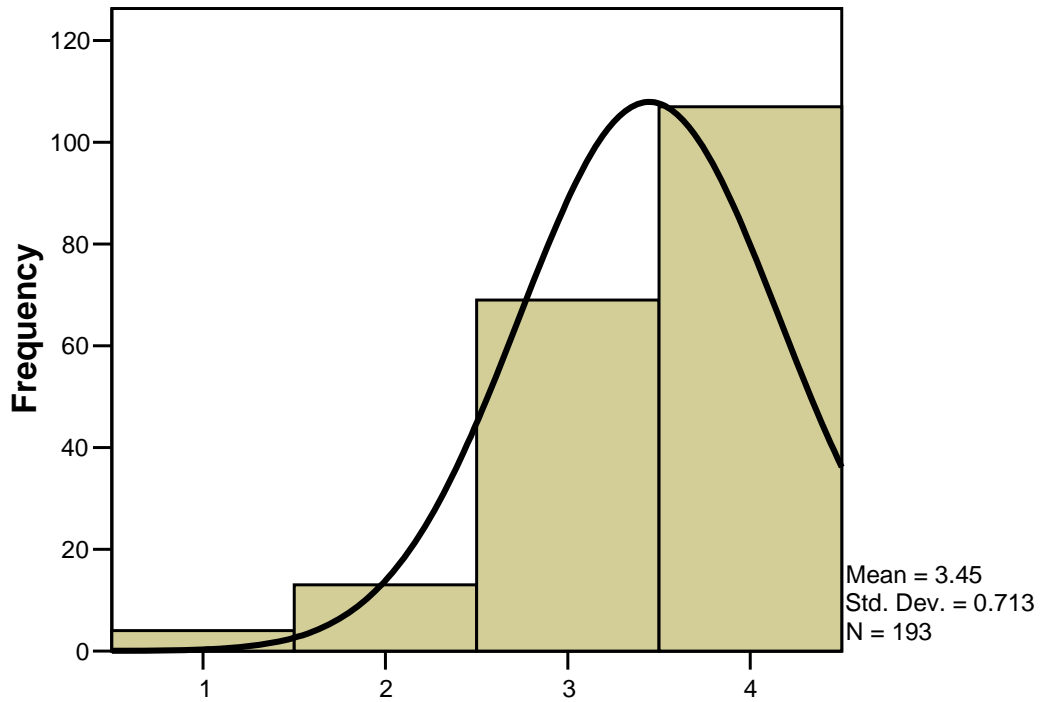
Supporting Measures

- Design Curriculum that Reflects Accepted Teaching and Learning Theory – Alumni Survey 2006-07
- Design Curriculum that Reflects Accepted Teaching and Learning Theory – Current Student Survey 2005-06
- Design Curriculum that Reflects Accepted Teaching and Learning Theory – Alumni Survey 2004-05
- Design Learning Strategies that Reflect Accepted Teaching and Learning Theory – Alumni Survey 2006-07
- Design Learning Strategies that Reflect Accepted Teaching and Learning Theory – Current Student Survey 2005-06
- Design Learning Strategies that Reflect Accepted Teaching and Learning Theory – Alumni Survey 2004-05

Supporting Measures

Design Curriculum that Reflects Accepted Teaching and Learning Theory

Frequency Distribution of Scores

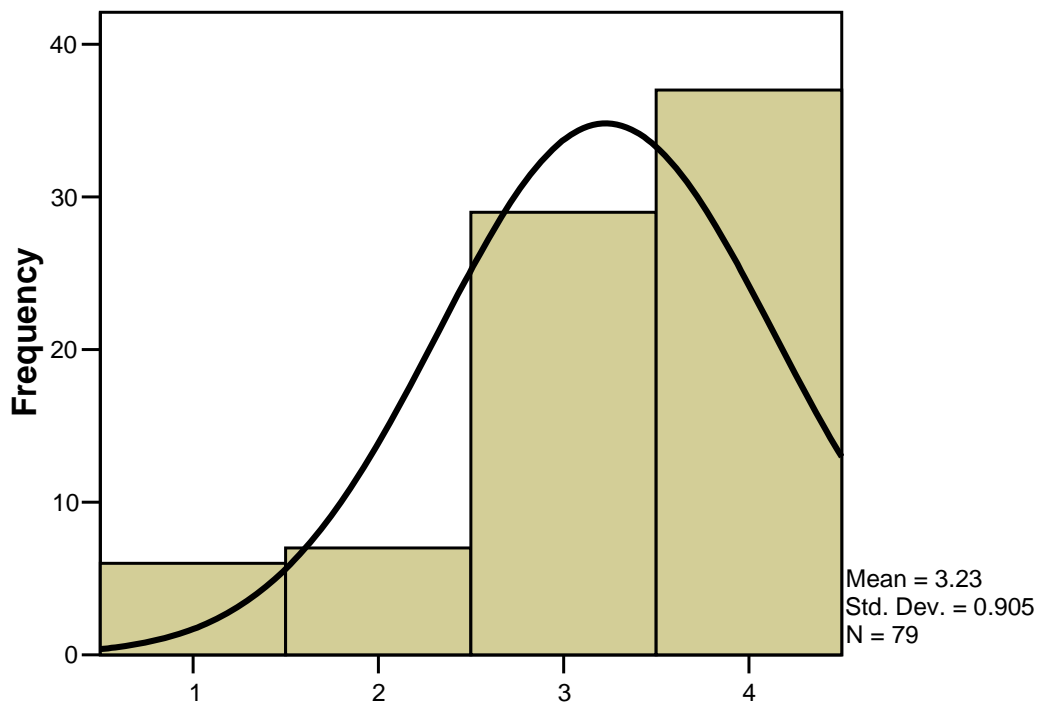


1 = No Improvement; 2 = Small Improvement; 3 = Moderate Improvement; 4 = Substantial Improvement

		Frequency	Percent	Valid Percent
Valid	No Improvement	4	2.0	2.1
	Small Improvement	13	6.5	6.7
	Moderate Improvement	69	34.7	35.8
	Substantial Improvement	107	53.8	55.4
	Total	193	97.0	100.0
Missing	System	6	3.0	
Total		199	100.0	

Design Curriculum that Reflects Accepted Teaching and Learning Theory

Frequency Distribution of Scores

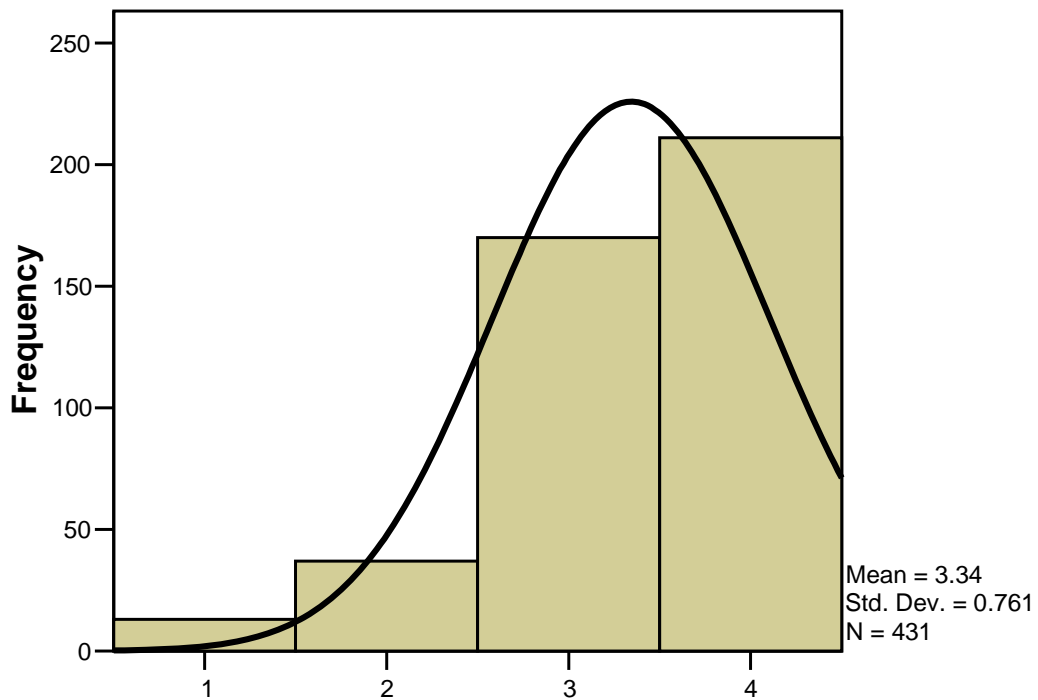


1 = No Improvement; 2 = Small Improvement; 3 = Moderate Improvement; 4 = Substantial Improvement

		Frequency	Percent	Valid Percent
Valid	No Improvement	6	7.4	7.6
	Small Improvement	7	8.6	8.9
	Moderate Improvement	29	35.8	36.7
	Substantial Improvement	37	45.7	46.8
	Total	79	97.5	100.0
Missing	System	2	2.5	
Total		81	100.0	

Design Curriculum that Reflects Accepted Teaching and Learning Theory

Frequency Distribution of Scores

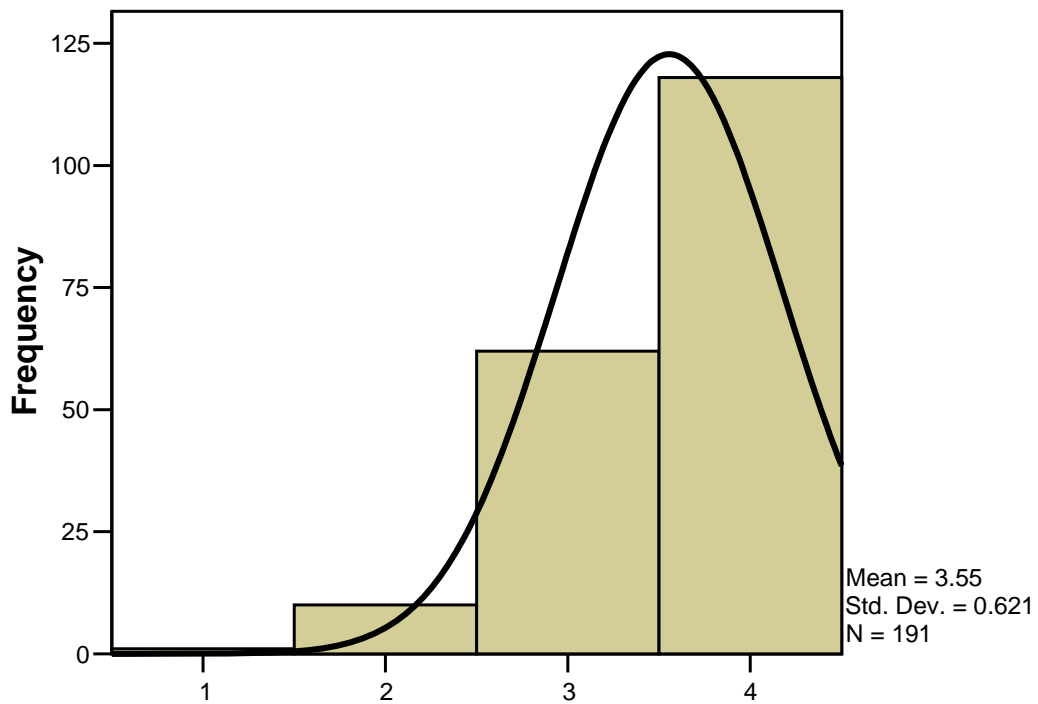


1 = No Improvement; 2 = Small Improvement; 3 = Moderate Improvement; 4 = Great Improvement

		Frequency	Percent	Valid Percent
Valid	No Improvement	13	2.9	3.0
	Small Improvement	37	8.3	8.6
	Moderate Improvement	170	38.1	39.4
	Great Improvement	211	47.3	49.0
	Total	431	96.6	100.0
Missing	System	15	3.4	
Total		446	100.0	

Design Learning Strategies that Reflect Accepted Teaching and Learning Theory

Frequency Distribution of Scores

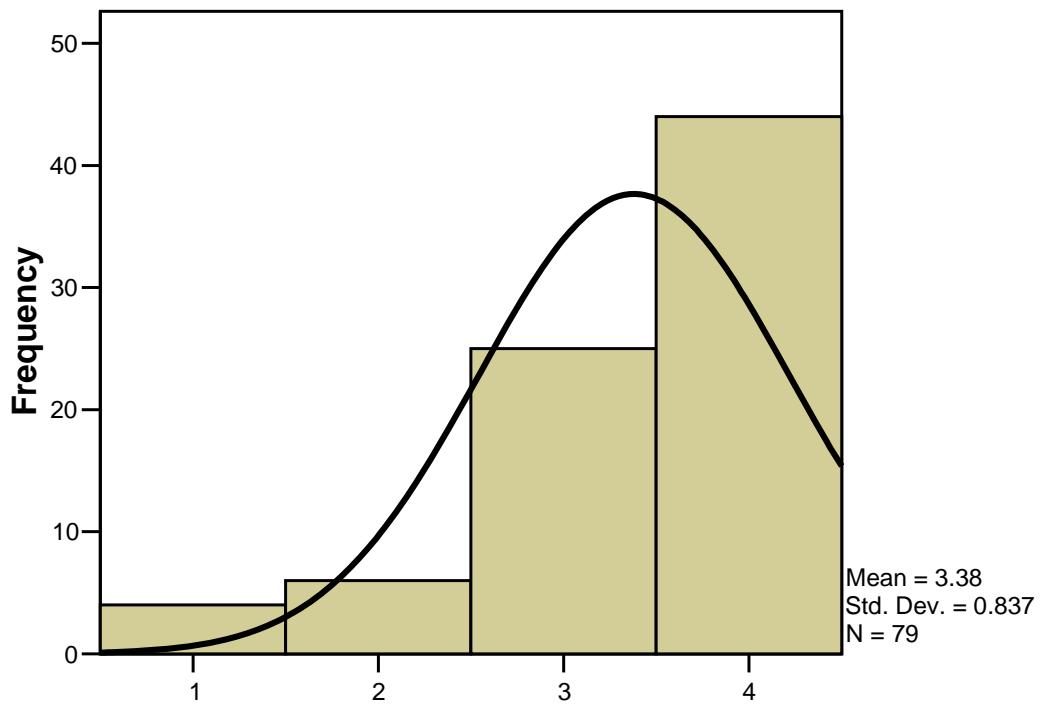


1 = No Improvement; 2 = Small Improvement; 3 = Moderate Improvement; 4 = Substantial Improvement

		Frequency	Percent	Valid Percent
Valid	No Improvement	1	.5	.5
	Small Improvement	10	5.0	5.2
	Moderate Improvement	62	31.2	32.5
	Substantial Improvement	118	59.3	61.8
	Total	191	96.0	100.0
Missing	System	8	4.0	
Total		199	100.0	

Design Learning Strategies that Reflect Accepted Teaching and Learning Theory

Frequency Distribution of Scores

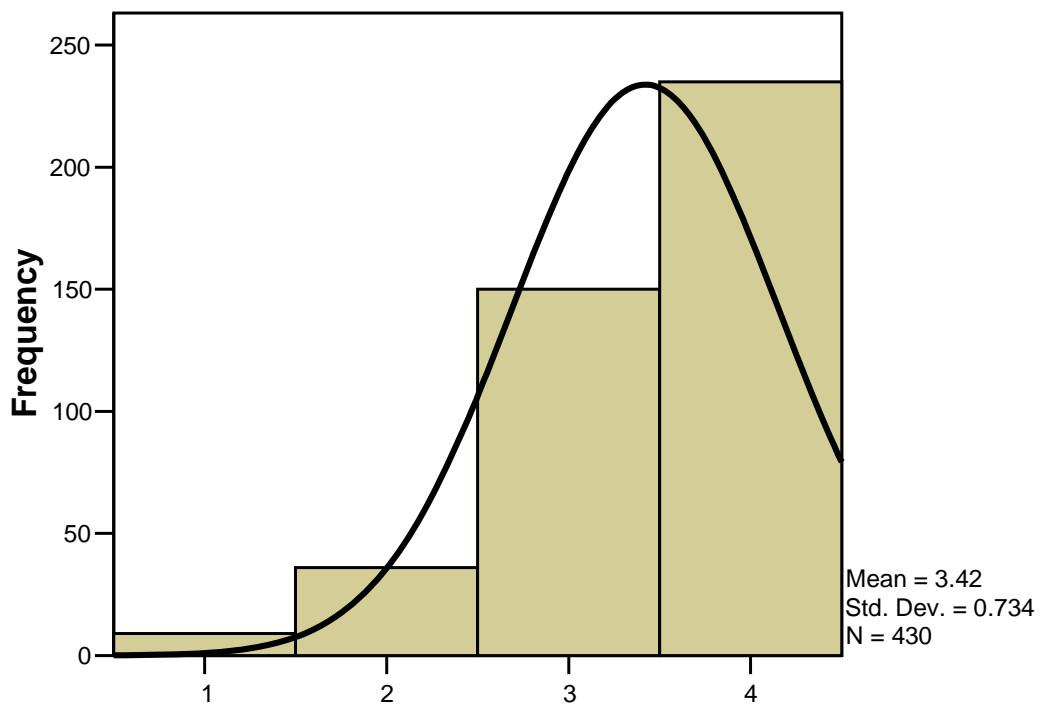


1 = No Improvement; 2 = Small Improvement; 3 = Moderate Improvement; 4 = Substantial Improvement

		Frequency	Percent	Valid Percent
Valid	No Improvement	4	4.9	5.1
	Small Improvement	6	7.4	7.6
	Moderate Improvement	25	30.9	31.6
	Substantial Improvement	44	54.3	55.7
	Total	79	97.5	100.0
Missing	System	2	2.5	
Total		81	100.0	

Design Learning Strategies that Reflect Accepted Teaching and Learning Theory

Frequency Distribution of Scores



1 = No Improvement; 2 = Small Improvement; 3 = Moderate Improvement; 4 = Great Improvement

		Frequency	Percent	Valid Percent
Valid	No Improvement	9	2.0	2.1
	Small Improvement	36	8.1	8.4
	Moderate Improvement	150	33.6	34.9
	Great Improvement	235	52.7	54.7
	Total	430	96.4	100.0
Missing	System	16	3.6	
Total		446	100.0	

Program Outcome 5

Select and effectively utilize technologies for professional development and for enhancing student learning.

Direct Measures

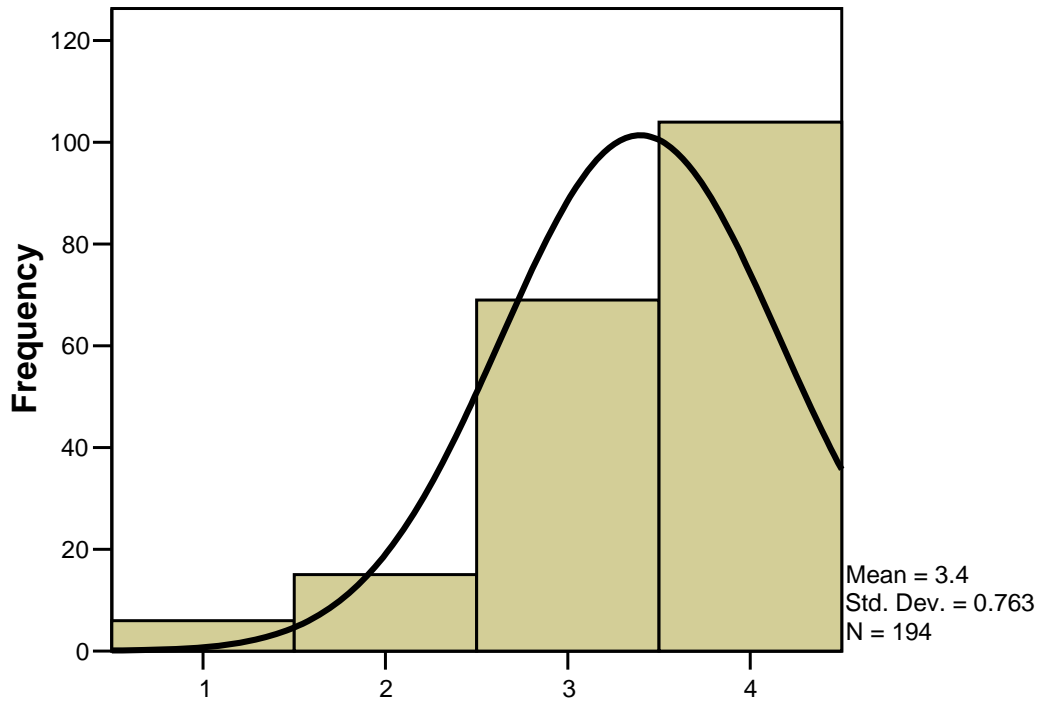
Supporting Measures

- Utilize Educational Technologies that Enhance Student Learning – Alumni Survey 2006-07
- Utilize Educational Technologies that Enhance Student Learning – Current Student Survey 2005-06
- Utilize Educational Technologies that Enhance Student Learning – Alumni Survey 2004-05

Supporting Measures

Utilize Educational Technologies that Enhance Student Learning

Frequency Distribution of Scores

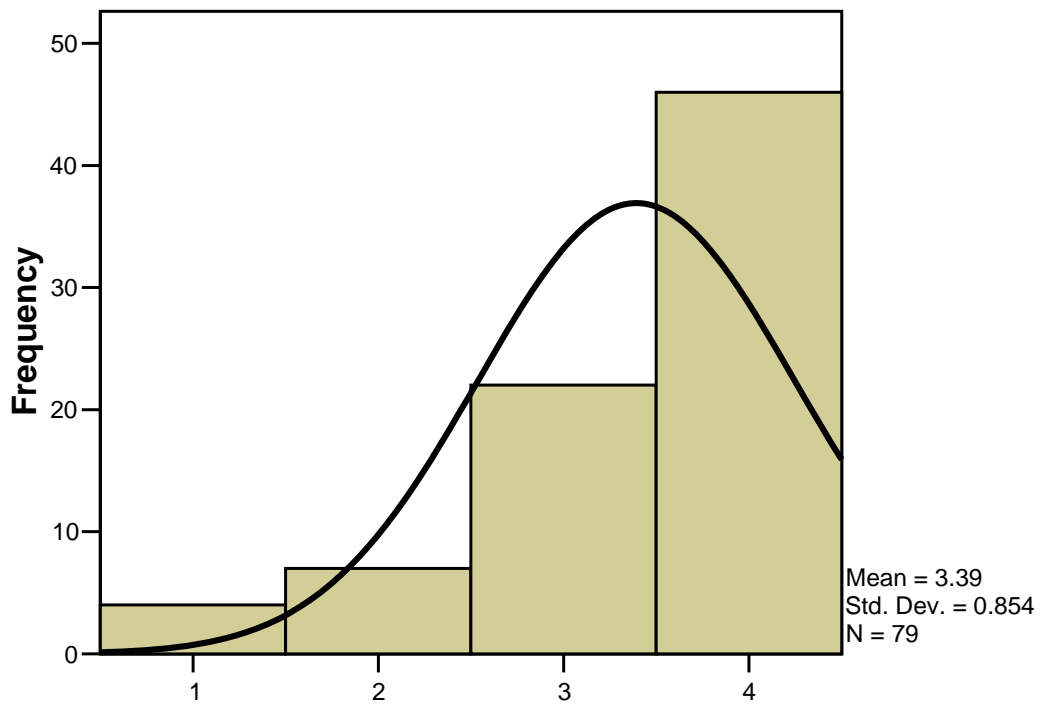


1 = No Improvement; 2 = Small Improvement; 3 = Moderate Improvement; 4 = Substantial Improvement

		Frequency	Percent	Valid Percent
Valid	No Improvement	6	3.0	3.1
	Small Improvement	15	7.5	7.7
	Moderate Improvement	69	34.7	35.6
	Substantial Improvement	104	52.3	53.6
	Total	194	97.5	100.0
Missing	System	5	2.5	
Total		199	100.0	

Utilize Educational Technologies that Enhance Student Learning

Frequency Distribution of Scores

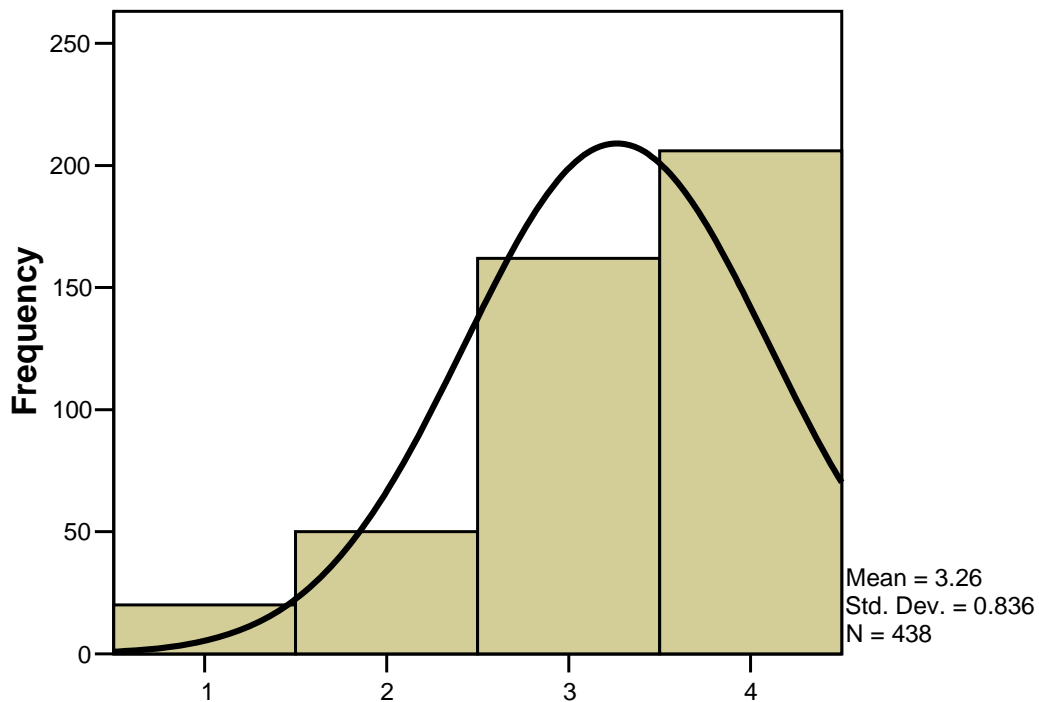


1 = No Improvement; 2 = Small Improvement; 3 = Moderate Improvement; 4 = Substantial Improvement

		Frequency	Percent	Valid Percent
Valid	No Improvement	4	4.9	5.1
	Small Improvement	7	8.6	8.9
	Moderate Improvement	22	27.2	27.8
	Substantial Improvement	46	56.8	58.2
	Total	79	97.5	100.0
Missing	System	2	2.5	
Total		81	100.0	

Utilize Educational Technologies that Enhance Student Learning

Frequency Distribution of Scores



1 = No Improvement; 2 = Small Improvement; 3 = Moderate Improvement; 4 = Great Improvement

		Frequency	Percent	Valid Percent
Valid	No Improvement	20	4.5	4.6
	Small Improvement	50	11.2	11.4
	Moderate Improvement	162	36.3	37.0
	Great Improvement	206	46.2	47.0
	Total	438	98.2	100.0
Missing	System	8	1.8	
Total		446	100.0	

Program Outcome 6

Write and speak clearly and coherently using correct grammar and sentence structure; communicate ideas and articulate arguments/positions in ways appropriate to reach the intended audience.

Direct Measures

- Appropriate APA Format for Citations was Used – Capstone Scoring Rubric
- Are Cited in the Text and Listed at the End of the Capstone – Capstone Scoring Rubric
- Demonstrates Control of Syntax, Grammar, Coherence; Paragraphs are Focused and Connected with Transitions – Capstone Scoring Rubric
- Proofread for Spelling, Typing, Punctuation – Capstone Scoring Rubric
- The Plan B Paper Included the Preliminary and Supplementary Pages Required by the College of Graduate Studies, College of Extended Learning, Capstone Project Guide: Title Page, Appendix, List of References – Capstone Scoring Rubric
- Reflects APA Style: References are Cited in Text and Listed in the End Reference List According to the Latest Edition of the APA Style Manual. Tables and Figures are Labeled and Numbered According to the Latest Edition of the APA Style. . . – Capstone Scoring Rubric

Supporting Measures

- Communicate Effectively in Writing to the Intended Target Audience – Alumni Survey 2006-07
- Communicate Effectively in Writing to the Intended Target Audience – Current Student Survey 2005-06
- Communicate Effectively in Writing to the Intended Target Audience – Alumni Survey 2004-05

Triangulation of Multiple Measures of Student Learning in Program Outcomes

Program Outcome 6: Write and speak clearly and coherently using correct grammar and sentence structure; communicate ideas and articulate arguments/positions in ways appropriate to reach the intended audience.

Program Outcome 6 is currently measured by:

- Six direct measures obtained from the Capstone Rubric
- Three supporting measures obtained from the 2006-07 Alumni Survey, 2005-06 Current Student Survey, and 2004-05 Alumni Survey.

The data obtained from those measures appear to be consistent among measures. More than 70.0% of the students obtained a score of “Exemplary” or “Excellent” on four of the direct measures and more than two-thirds obtained a score of “Exemplary” or “Excellent” for two of the direct measures. In addition, the supporting measures show that nine out of ten alumni (90.4%) from the 2006-07 survey, and more than four-fifths of the alumni (84.7%) from the 2004-05 survey, and current student survey (80.2%) responses indicated either “Substantial Improvement” or “Moderate Improvement” with regard to this program outcome.

The M.A. in Education faculty can determine the adequacy of the six direct measures of this program outcome for measuring learning. Three other supporting measures are indicated in the Assessment Plan. ORA will be happy to work with the Program Director to implement these measures, if desired.

The data obtained thus far from the direct and supporting measures would lend support to a finding by M.A. in Education faculty that student learning in Program Outcome 6 is satisfactory.

Jamie B. Slater, Ed.D.
Director of Organizational Research & Assessment
CMU Off-Campus Programs

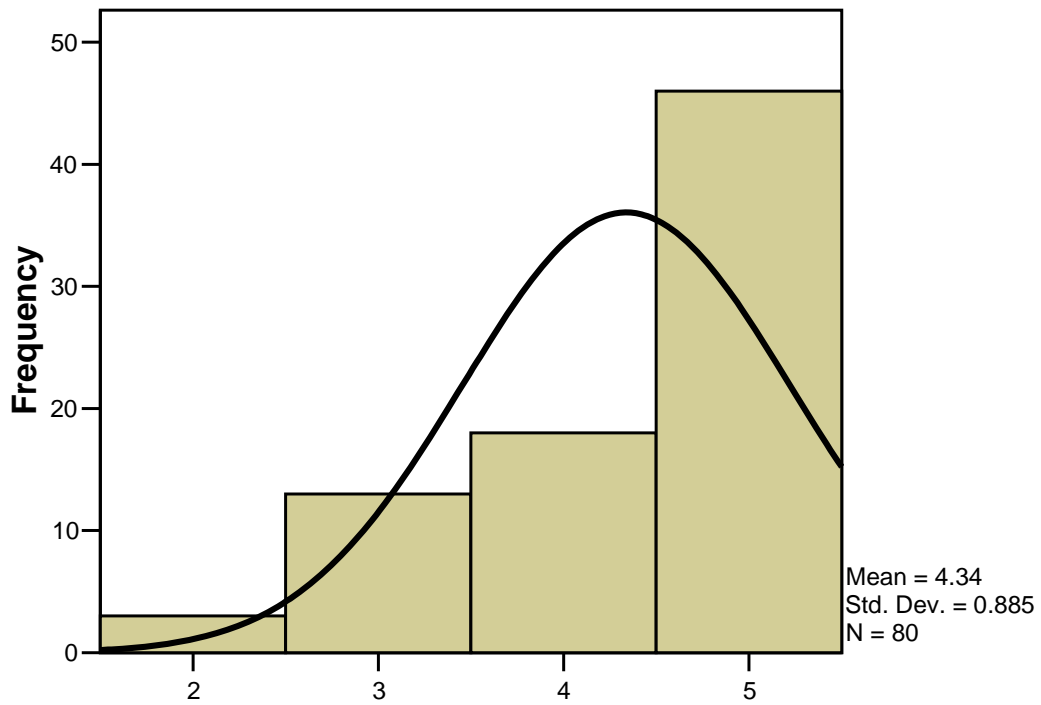
Katherine H. Clendening, M.A.
Research Associate, Organizational Research & Assessment
CMU Off-Campus Programs

2. Opinion of Faculty and Academic Leadership

Direct Measures

Appropriate APA Format for Citations was Used

Frequency Distribution of Scores

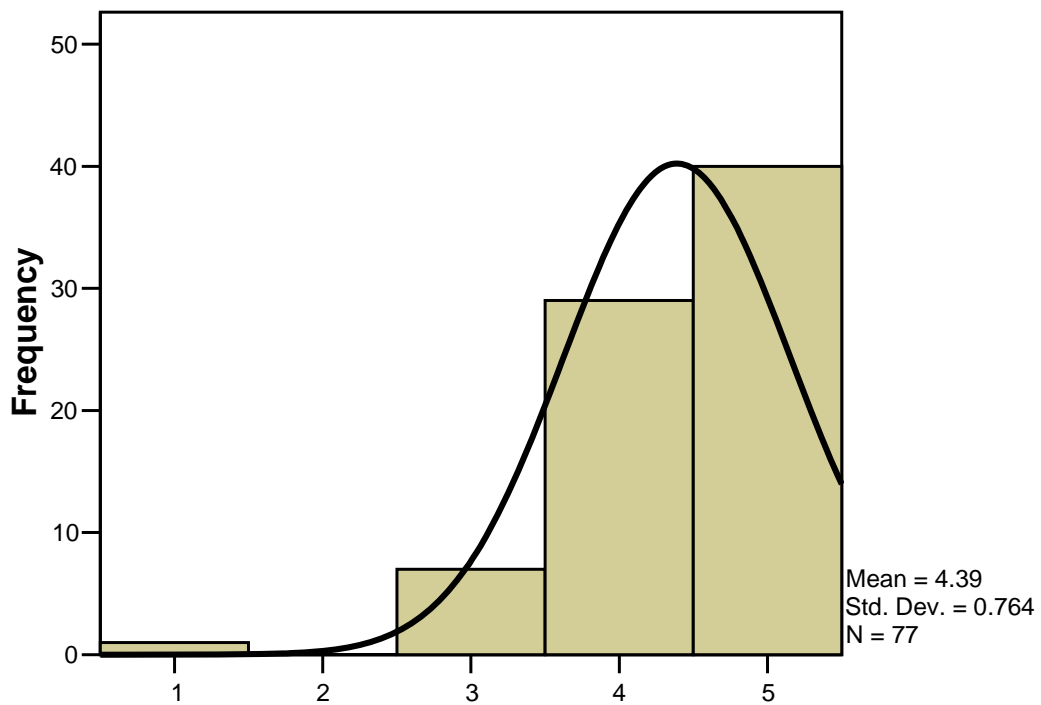


1 = Unsatisfactory; 2 = Satisfactory; 3 = Good; 4 = Excellent; 5 = Exemplary

		Frequency	Percent	Valid Percent
Valid	Satisfactory	3	3.3	3.8
	Good	13	14.4	16.3
	Excellent	18	20.0	22.5
	Exemplary	46	51.1	57.5
	Total	80	88.9	100.0
Missing	System	10	11.1	
Total		90	100.0	

Are Cited in the Text and Listed at the End of the Capstone

Frequency Distribution of Scores

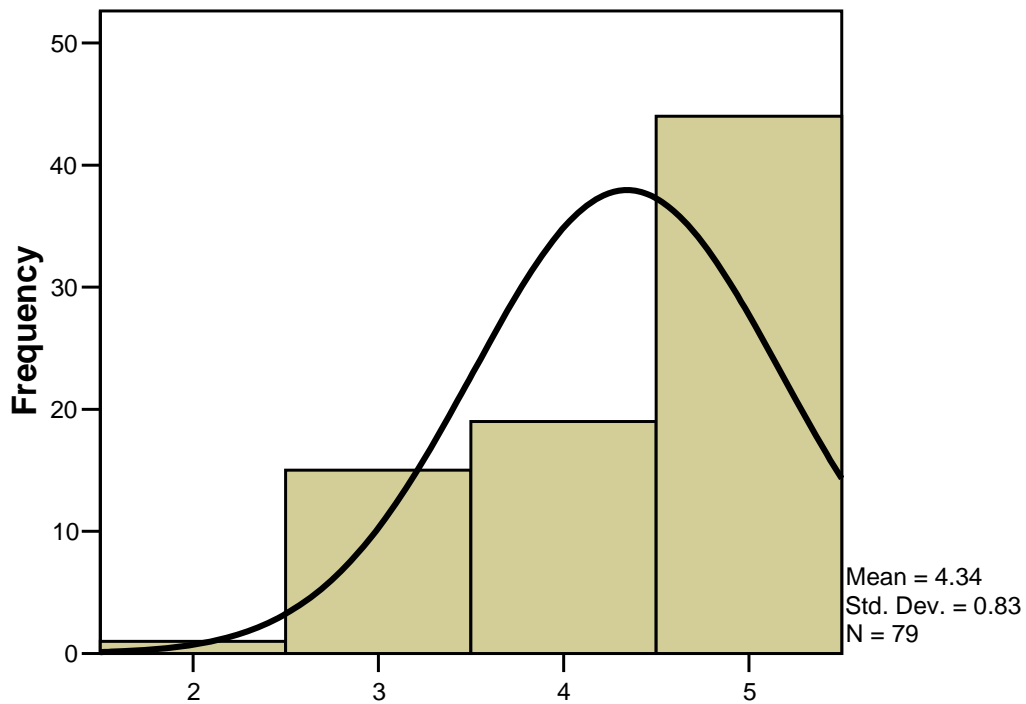


1 = Unsatisfactory; 2 = Satisfactory; 3 = Good; 4 = Excellent; 5 = Exemplary

		Frequency	Percent	Valid Percent
Valid	Unsatisfactory	1	1.1	1.3
	Good	7	7.8	9.1
	Excellent	29	32.2	37.7
	Exemplary	40	44.4	51.9
	Total	77	85.6	100.0
Missing	System	13	14.4	
Total		90	100.0	

**Demonstrates Control of Syntax, Grammar, Coherence;
Paragraphs are Focused and Connected with Transitions**

Frequency Distribution of Scores

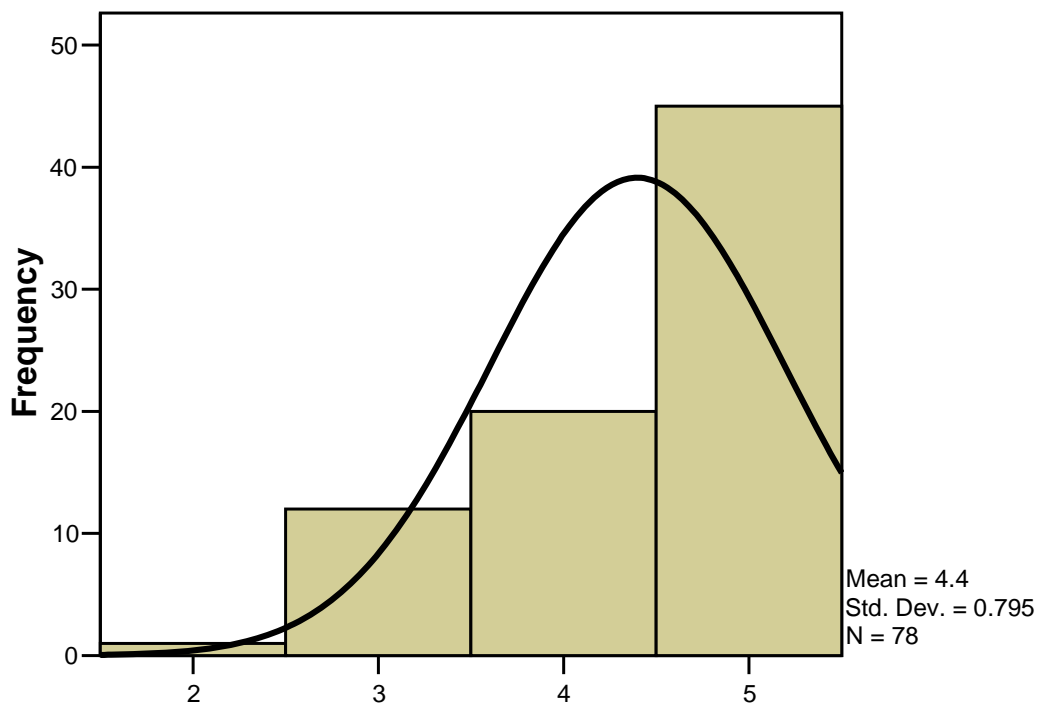


1 = Unsatisfactory; 2 = Satisfactory; 3 = Good; 4 = Excellent; 5 = Exemplary

		Frequency	Percent	Valid Percent
Valid	Satisfactory	1	1.1	1.3
	Good	15	16.7	19.0
	Excellent	19	21.1	24.1
	Exemplary	44	48.9	55.7
Total		79	87.8	100.0
Missing	System	11	12.2	
Total		90	100.0	

Proofread for Spelling, Typing, Punctuation

Frequency Distribution of Scores

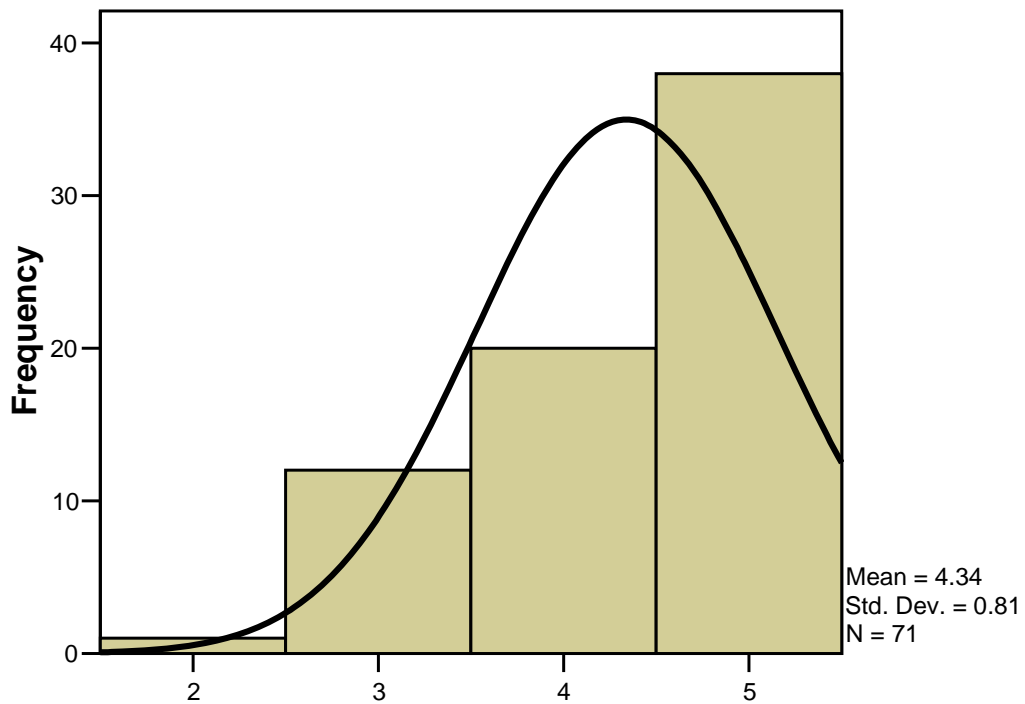


1 = Unsatisfactory; 2 = Satisfactory; 3 = Good; 4 = Excellent; 5 = Exemplary

		Frequency	Percent	Valid Percent
Valid	Satisfactory	1	1.1	1.3
	Good	12	13.3	15.4
	Excellent	20	22.2	25.6
	Exemplary	45	50.0	57.7
	Total	78	86.7	100.0
Missing	System	12	13.3	
Total		90	100.0	

The Plan B Paper Included the Preliminary and Supplementary Pages Required by the College of Graduate Studies, College of Extended Learning Capstone Project Guide: Title Page, Appendix, List of References

Frequency Distribution of Scores

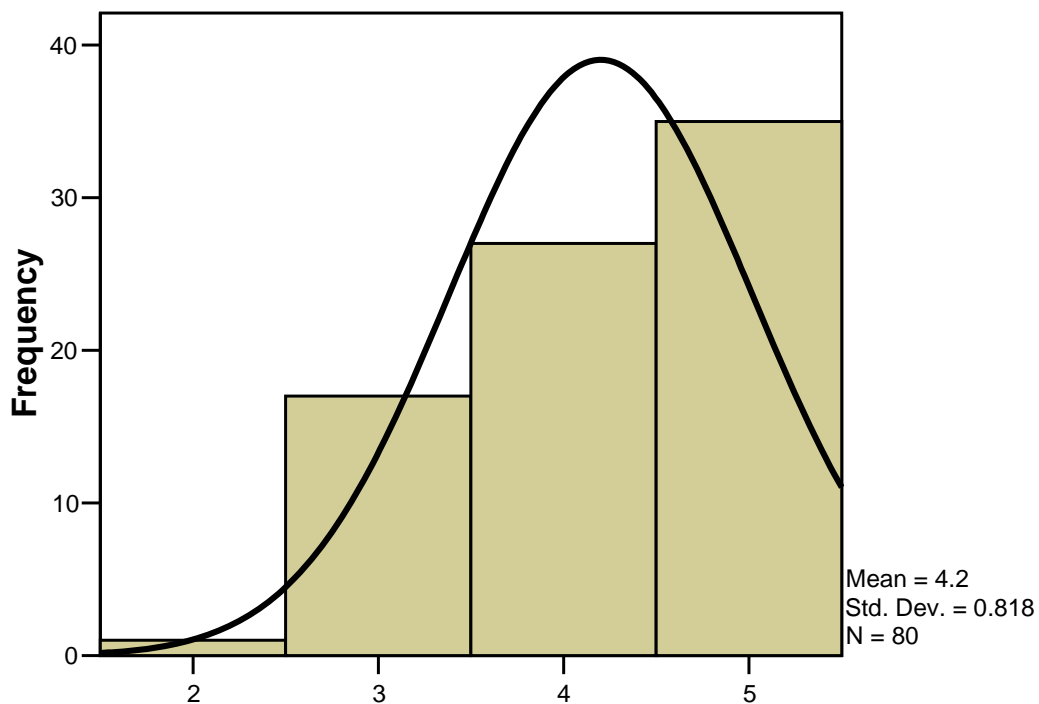


1 = Unsatisfactory; 2 = Satisfactory; 3 = Good; 4 = Excellent; 5 = Exemplary

		Frequency	Percent	Valid Percent
Valid	Satisfactory	1	1.1	1.4
	Good	12	13.3	16.9
	Excellent	20	22.2	28.2
	Exemplary	38	42.2	53.5
	Total	71	78.9	100.0
Missing	System	19	21.1	
Total		90	100.0	

Reflects APA Style: References are Cited in Text and Listed in the End Reference List According to the Latest Edition of the APA Style Manual. Tables and Figures are Labeled and Numbered According to the Latest Edition of the APA Style ...

Frequency Distribution of Scores



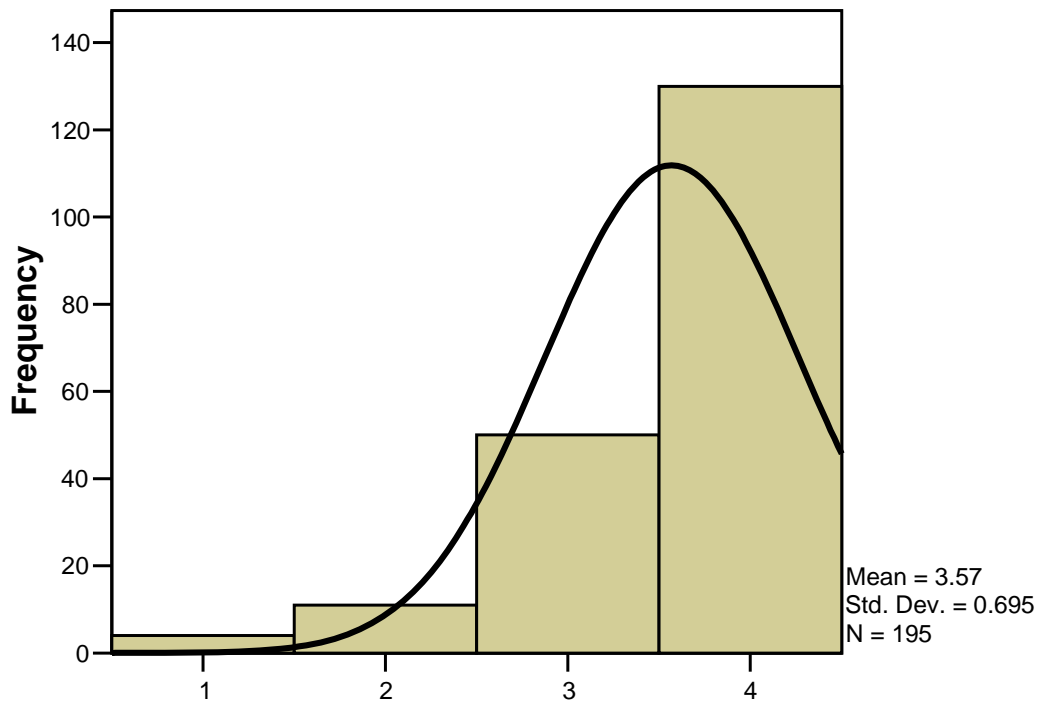
1 = Unsatisfactory; 2 = Satisfactory; 3 = Good; 4 = Excellent; 5 = Exemplary

		Frequency	Percent	Valid Percent
Valid	Satisfactory	1	1.1	1.3
	Good	17	18.9	21.3
	Excellent	27	30.0	33.8
	Exemplary	35	38.9	43.8
	Total	80	88.9	100.0
Missing	System	10	11.1	
Total		90	100.0	

Supporting Measures

Communicate Effectively in Writing to the Intended Target Audience

Frequency Distribution of Scores

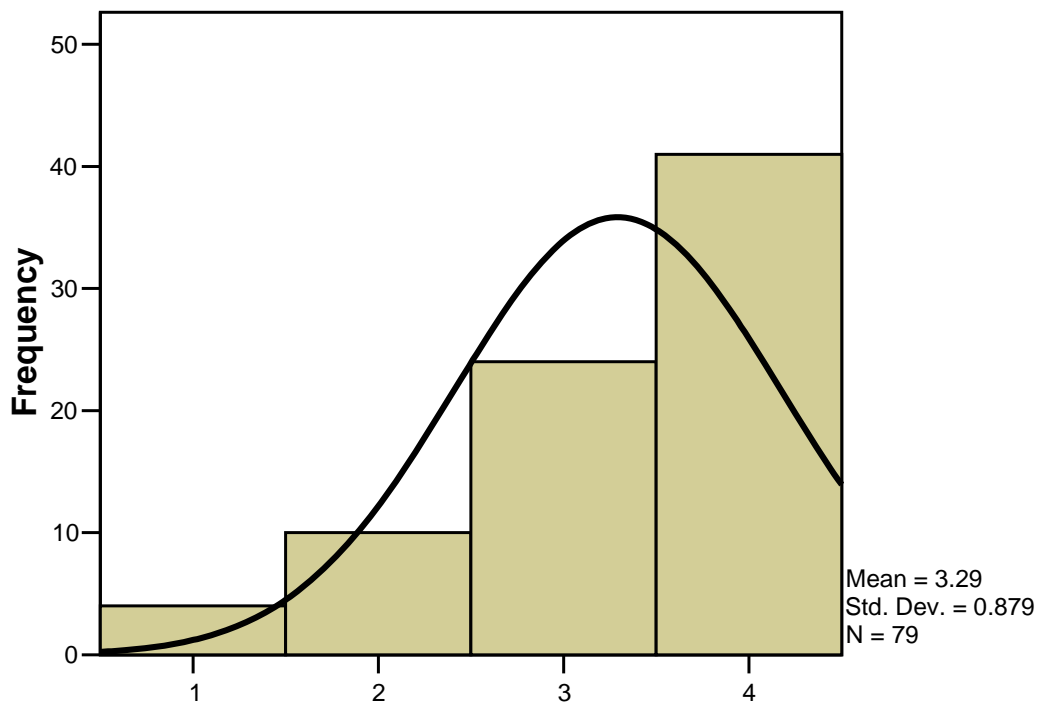


1 = No Improvement; 2 = Small Improvement; 3 = Moderate Improvement; 4 = Substantial Improvement

		Frequency	Percent	Valid Percent
Valid	No Improvement	4	2.0	2.1
	Small Improvement	11	5.5	5.6
	Moderate Improvement	50	25.1	25.6
	Substantial Improvement	130	65.3	66.7
	Total	195	98.0	100.0
Missing	System	4	2.0	
Total		199	100.0	

Communicate Effectively in Writing to the Intended Target Audience

Frequency Distribution of Scores

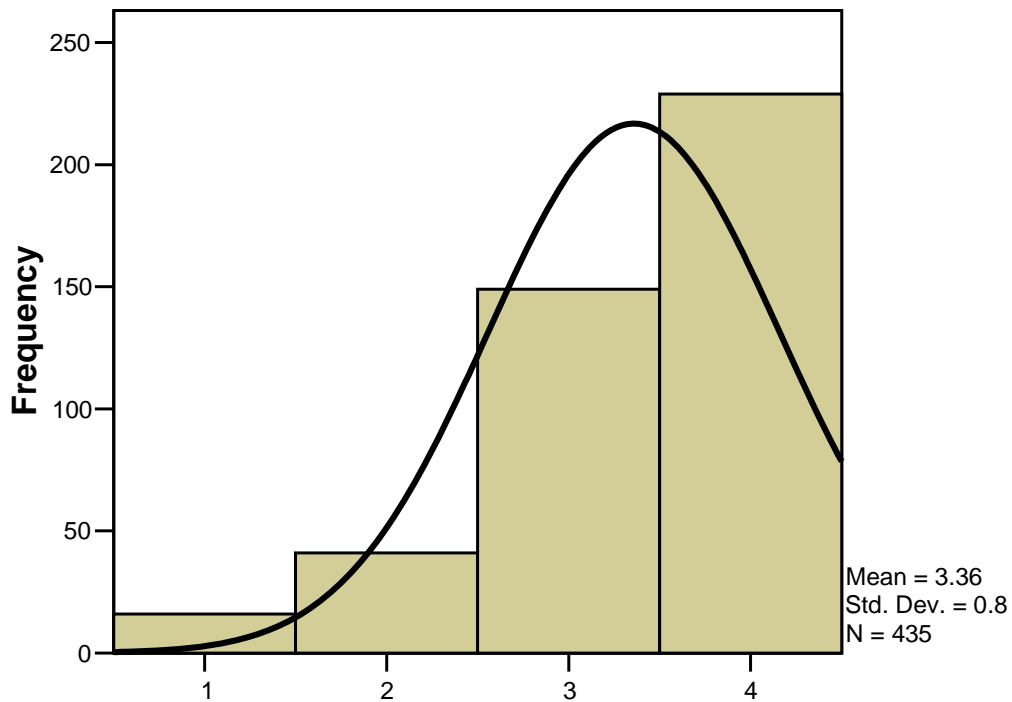


1 = No Improvement; 2 = Small Improvement; 3 = Moderate Improvement; 4 = Substantial Improvement

		Frequency	Percent	Valid Percent
Valid	No Improvement	4	4.9	5.1
	Small Improvement	10	12.3	12.7
	Moderate Improvement	24	29.6	30.4
	Substantial Improvement	41	50.6	51.9
	Total	79	97.5	100.0
Missing	System	2	2.5	
Total		81	100.0	

Communicate Effectively in Writing to the Intended Target Audience

Frequency Distribution of Scores



1 = No Improvement; 2 = Small Improvement; 3 = Moderate Improvement; 4 = Great Improvement

		Frequency	Percent	Valid Percent
Valid	No Improvement	16	3.6	3.7
	Small Improvement	41	9.2	9.4
	Moderate Improvement	149	33.4	34.3
	Great Improvement	229	51.3	52.6
	Total	435	97.5	100.0
Missing	System	11	2.5	
Total		446	100.0	

Program Outcome 7

Establish effective professional relationships with a wide range of individuals in their workplace and/or associated with their work.

Direct Measures

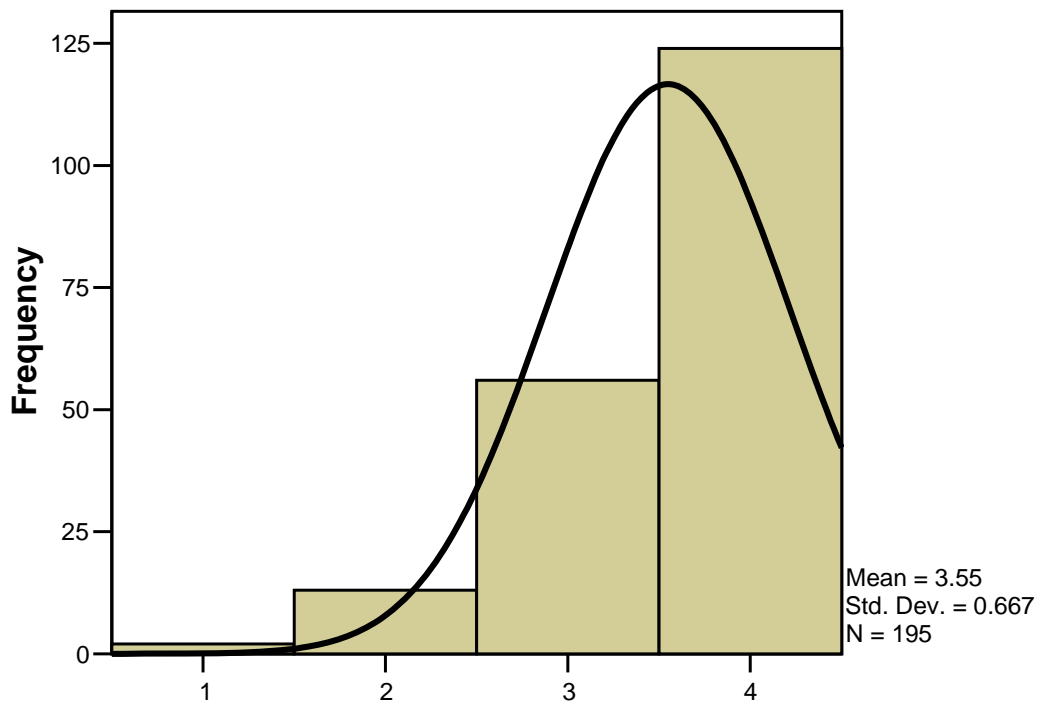
Supporting Measures

- Communicate Verbally in an Effective Way to Diverse Audiences – Alumni Survey 2006-07
- Communicate Verbally in an Effective Way to Diverse Audiences – Current Student Survey 2005-06
- Communicate Verbally in an Effective Way to Diverse Audiences – Alumni Survey 2004-05

Supporting Measures

Communicate Verbally in an Effective Way to Diverse Audiences

Frequency Distribution of Scores

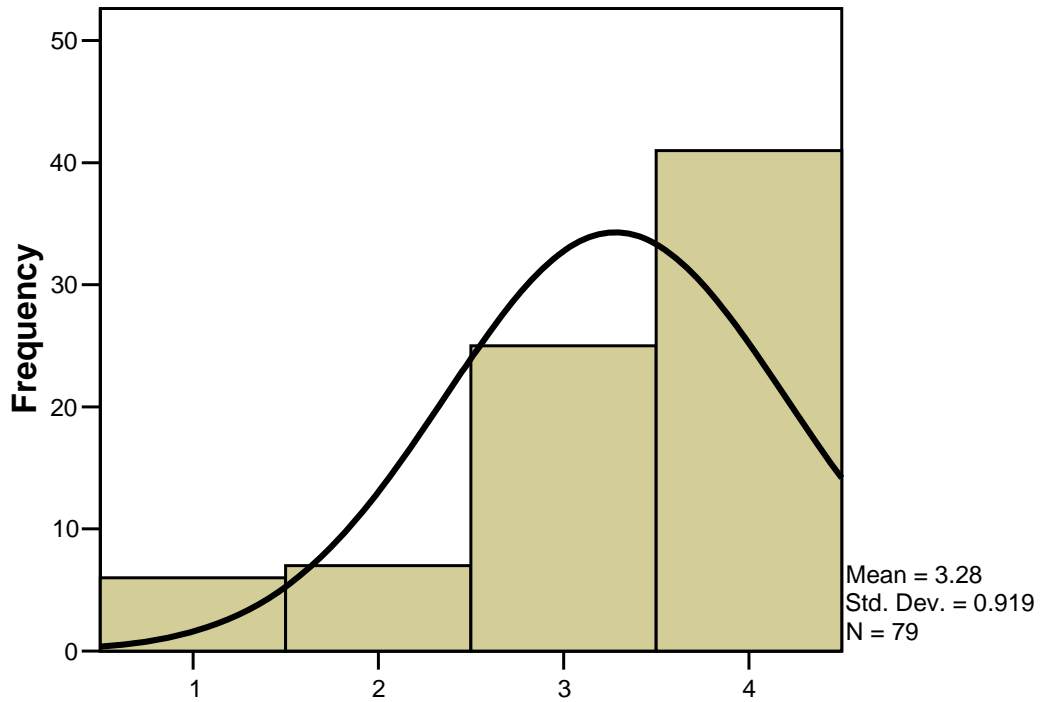


1 = No Improvement; 2 = Small Improvement; 3 = Moderate Improvement; 4 = Substantial Improvement

		Frequency	Percent	Valid Percent
Valid	No Improvement	2	1.0	1.0
	Small Improvement	13	6.5	6.7
	Moderate Improvement	56	28.1	28.7
	Substantial Improvement	124	62.3	63.6
	Total	195	98.0	100.0
Missing	System	4	2.0	
Total		199	100.0	

Communicate Verbally in an Effective Way to Diverse Audiences

Frequency Distribution of Scores

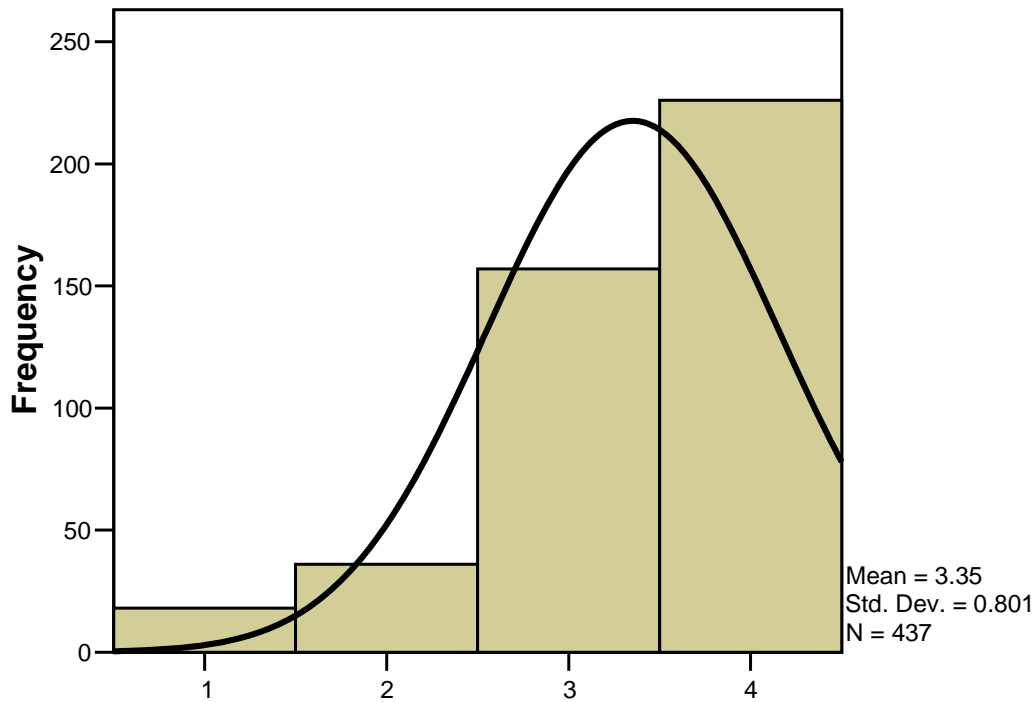


1 = No Improvement; 2 = Small Improvement; 3 = Moderate Improvement; 4 = Substantial Improvement

		Frequency	Percent	Valid Percent
Valid	No Improvement	6	7.4	7.6
	Small Improvement	7	8.6	8.9
	Moderate Improvement	25	30.9	31.6
	Substantial Improvement	41	50.6	51.9
	Total	79	97.5	100.0
Missing	System	2	2.5	
Total		81	100.0	

Communicate Verbally in an Effective Way to Diverse Audiences

Frequency Distribution of Scores



1 = No Improvement; 2 = Small Improvement; 3 = Moderate Improvement; 4 = Great Improvement

		Frequency	Percent	Valid Percent
Valid	No Improvement	18	4.0	4.1
	Small Improvement	36	8.1	8.2
	Moderate Improvement	157	35.2	35.9
	Great Improvement	226	50.7	51.7
	Total	437	98.0	100.0
Missing	System	9	2.0	
Total		446	100.0	