

CLUSTER MEETING MINUTES

Thursday, March 24, 2016

1:35 pm – 3:20 pm

Lake Worth Campus

Chemistry Cluster

ITEM 1. How can your cluster support textbook affordability? Please provide your top three recommendations. Also, list initiatives underway such as open source textbooks, out of copyright materials, textbook rentals, etc.

Discussion: Chemistry Cluster discussed ways in which we support textbook affordability including, but not limited to:

1. Creating our own laboratory manual, which costs a fraction of the cost of the currently available versions on the market.
2. Adopting similar textbooks for sequence courses so that students don't have to buy multiple books.
3. Choosing to re-adopt the current text so that students have the option of purchasing used and recent edition versions.

ITEM 2. Embedded Assessment for General Education – Presentation by Professor Karen Pain

Discussion: *Professor Pain has met with faculty on the various campuses and brought up some thoughtful questions regarding the use and analysis of the General Education Embedded Assessments. She is speaking with each cluster today to discuss the following topics:*

- 1. Application and administration of assessment*
- 2. Using the results*
- 3. Adjuncts*
- 4. Future considerations*

***“Instructions: As a cluster, please discuss the data provided to your chair and answer the questions below. Your cluster discussion should be included in the minutes if you are able to answer the questions today. If sub-committees are formed for follow-up, please enter that information in the minutes and submit any decisions made after today to IRE by April 29, 2016 (send email to Karen Pain at paink@palmbeachstate.edu).*”**

Professor Pain has asked that each cluster consider the following information by April 29, 2016.

- 1. How do your current cycle results indicate*
 - a. Your assessment instrument is measuring your selected outcomes?*
 - b. You have selected a reasonable benchmark?*

2. *In reflecting on this process and results, what changes might be necessary to move forward in a meaningful way? Answers should be related to revisions of the outcome, instrument, or benchmarks you've previously selected.*

- a. *Note: Revisions of outcomes must go through curriculum.*

- b. *Note: Revisions (or plans to revise) the common assessment instrument or benchmark should be communicated to IRE or recorded in the minutes; contact IRE for assistance if needed. Reviewed changes can be implemented in the Fall 2016 semester.*

Required items above may be modified slightly. Optional items may be added to the agenda but anything extra will also be included in the survey on March 24th so that faculty can respond individually if there is not time for cluster discussion."

Cluster members discussed ways in which the embedded assessments are delivered in each course and how these delivery methods may affect the ability to compare the results across sections. Discussions were held regarding agreeing on a consistent time and format for the assessment. The Cluster members felt that it may be best to embed the assessment as part of the final exam for each course to ensure consistency in administration of the questions. The suggestion was raised to have the questions be placed toward the beginning of the final exam to ensure students answer the questions to avoid any possible time constraint issues.

Additionally, discussion was held regarding whether we wanted to review and update the questions prior to the next assessment cycle. We discussed the possibility of keeping the current questions for one more testing cycle then revising the assessments. Karen Pain cleared up some questions the Cluster had regarding how long the assessments will be adopted for, which is for 3 testing cycles [regardless of whether that is 3 semesters or 3 years].

Action:

Questions to answer in cluster or follow-up work by April 29, 2016

1. How do your current cycle results indicate your assessment instrument is measuring your selected outcome **and** that you have selected a reasonable benchmark?

| Course | Benchmark | 2014 Results | 2015 Results | 2014-2015 Average | Achieved & Reasonable? |
|-----------------|---------------------------------------------|----------------------|----------------------|-------------------|------------------------|
| CHM 1025 | 60% of students will achieve a score of 3/5 | 62.5% achieved a 3/5 | 72.0% achieved a 3/5 | 67.25% | Yes |
| CHM 1032 | 80% of students will achieve a score of 3/5 | 81.9% achieved a 3/5 | 84.9% achieved a 3/5 | 83.40% | Yes |
| CHM 1045 | 50% of students will achieve a score of 3/5 | 57.4% achieved a 3/5 | 61.7% achieved a 3/5 | 59.55% | Yes |
| CHM 1046 | 70% of students will achieve a score of 3/5 | 77.9% achieved a 3/5 | 60.0% achieved a 3/5 | 68.95% | Yes |

The Cluster discussed the outcomes of the assessments and when we would like to revise the questions. The Cluster feels that the data is capturing the student learning as the assessments stand. One issue we determined was that the number of instructors entering scores varied sometimes greatly semester-to-semester, which impacts the final reporting of assessment results. The Cluster had worked on these questions together and feel that the questions are reasonable but there is always room for improvement. The Cluster has agreed to keep the current assessments for the immediate future but would like to revise the questions in the future.

Discussion was held regarding correlating the benchmark assessment to something else concrete of the course, such as the college's aggregate course pass rate. For example, if we expect 80% of students to receive a final course grade of A or B, then we would then state the benchmark would concomitantly need to state that 80% of students would receive 3 or better out of 5 on the embedded assessment.

For this past academic year the course success rates were as follows:

| Course | Final Course Grade of A\B\C |
|----------|-----------------------------|
| CHM 1025 | 78.7% |
| CHM 1032 | 78.2% |
| CHM 1045 | 80.3% |
| CHM 1046 | 77.5% |

2. In reflecting on this process and results, what changes might be necessary to the outcomes, instruments, implementation, or benchmarks for any of your courses, in order to move forward in a meaningful way?
 - Cluster discussed the effect of keeping consistency on timing of assessment delivery to ensure assessments are conducted properly by all faculty (including adjuncts) and also to ensure students are being assessed after a similar amount of course time. By delivering the assessment at the end of the term that would alleviate any variability in when the material was delivered during the term.
 - Cluster discussed reviewing the questions to ensure they are adequate and appropriate for each course.
 - Cluster also discussed with Karen Pain that another factor affecting the reported results is that the number of instructors reporting scores varies greatly for some courses from semester-to-semester.
 - To ensure that adjunct faculty enter their scores the idea of having the process be part of the adjunct end-of-semester check-out process. That would help with increasing the number of faculty reporting scores.
 - **The final consensus for the Cluster is to keep the current embedded assessment questions and raise the benchmarks for all 4 classes to be “At least 80% of students will achieve a score of 3 out of 5 on the assessment.”**

Data/data source:

1. Karen Pain: paink@palmbeachstate.edu or 868-3325 (13325).
2. <http://www.palmbeachstate.edu/learningoutcomes/assessment-resources.aspx>
3. Document included at the end of these minutes: *Appendix C: PBSC Embedded Assessment for General Education Questions to Consider Going Forward & Learning Outcomes 2014-2015*

ITEM 3. Textbook Adoptions for Fall 2016 for CHM 1045 & 1046 Lecture Course Sequence

Discussion: Cluster discussed upcoming textbook adoption reviews. Some discussion was had regarding currently used textbooks and what, if any, course textbooks will be up for review in the upcoming term.

Action: In the March Cluster meeting in the Spring 2016 term we will evaluate the current textbook selections and determine if we will be changing those textbook adoptions for the Fall 2016 term. Adoptions will need to be put into effect prior to bookstore ordering deadlines. Faculty reviewed potential textbooks in the interim and made the final vote on new textbook adoptions.

Cluster voted on the textbook adoptions that are due for Fall 2016, which are as follows:

- CHM 1025 lecture: the Cluster voted to go back to Tro. "Introduction to Chemistry Essentials" 5th Edition. Nivaldo J. Tro. Publisher: Pearson. ISBN: 978-0-321-91905-2.
- CHM 1045/46 lecture sequence: the Cluster voted to keep the same textbook for CHM 1045/46 but to go with the new 11th edition of General Chemistry (NO OWL) by Ebbing and Gammon. Publisher Cengage. Student Copy ISBN: 978-1-305-58034-3

Data/data source: Two documents included at the end of these minutes:

Appendix A: Chemistry Textbook Adoption Information Table

Appendix B: Chemistry Cluster Textbook Selection Criteria Form

ITEM 4. Review and Proposal for Possible Use of Chemical Software in Classroom Operations

Discussion: Discussion was held regarding the use of technology in the classroom and the Cluster felt that for dry labs the supplementary available technology apps can be useful. This would be an ancillary addition and not meant to replace hands-on wet laboratory experiment.

ITEM 5. Selection of New Chemistry Cluster Chair and Scribe for Fall 2016-Spring 2017 academic year

Discussion: Currently Dr. Shreve serves as Chemistry Cluster Chair and Dr. Gorgevska serves as Chemistry Cluster Scribe.

Action: Cluster voted to keep the current Chemistry Cluster Chair and Scribe for the 2016-2017 academic year. The next election cycle will resume in Spring 2017.

Attendance:

| | | |
|--------------|---------------------|-------------------|
| Emma Chow | Alexandra Gorgevska | |
| John Gaul | Richard Shreve | Sapna Gupta |
| Marina Rines | Nelson Daniel | Trineshia Sellars |

Absences: Cynthia Judd**Ex Officio:** GNSC Chair and Associate Dean Carlos Ramos, PBSC, Lake Worth Campus

Submitted by:

Alexandra Gorgevska, Ph.D.

Scribe for Chemistry Cluster – 24 March 2016

cc. Minutes Distribution List

Appendix A:**Chemistry Textbook Adoption Information**

| Course # | Course Title | Text Book | Author | Ed. | Publisher | ISBN | Latest Adoption | Due for Change |
|-----------------|-----------------------------|---------------------------------------------------------------------------------------|-----------------------------|------|---------------|-----------------------------------|-----------------|----------------|
| CHM 1025 | Introductory Chemistry | Introduction to Chemistry Essentials | Nivaldo J. Tro | 5th | Pearson | 978-0-321-91905-2 | Fall 2016 | Fall 2019 |
| CHM1032 | Principles of Chemistry | An Introduction to General, Organic and Biological Chemistry (NO Mastering Chemistry) | Timberlake | 12th | Pearson | 9780321908445 | Fall 2015 | Fall 2018 |
| CHM1032 | Principles of Chemistry | w/ Mastering Chemistry | Timberlake | 12th | Pearson | with MC new design: 9780321938398 | | |
| CHM1032 | Principles of Chemistry | Study Guide | | 12th | Pearson | 9780321933461 | Recommended | |
| CHM 1032L | Principles of Chemistry Lab | Laboratory Manual for General, Organic and Biological Chemistry | Chow and Sellars | 2nd | Hayden-McNeil | 9780738069111 | Fall 2016 | Fall 2019 |
| CHM 1045/1046 | General Chemistry 1 and 2 | General Chemistry (NO OWL) | Ebbing and Gammon | 11th | Cengage | 978-1-305-58034-3 | Fall 2016 | Fall 2019 |
| CHM 1045L | General Chemistry Lab 1 | Laboratory Manual for General Chemistry 1 | Chemistry Dept. | 2nd | Hayden-McNeil | 9780738061559 | Fall 2016 | Fall 2019 |
| CHM 1046L | General Chemistry Lab 2 | Laboratory Manual for General Chemistry 2 | Chemistry Dept. | 2nd | Hayden-McNeil | 9780738061542 | Fall 2016 | Fall 2019 |
| CHM 2210/2211 | Organic Chemistry 1 & 2 | Organic Chemistry | Klein | 2nd | Wiley | 9781118452288 | Fall 2014 | Fall 2017 |
| CHM 2210 | Organic Chemistry 1 | Organic Chemistry as a 2nd Language | Klein | 3rd | Wiley | 9781118010402 | Recommended | |
| CHM2211 | Organic Chemistry 2 | Organic Chemistry as a 2nd Language | Klein | 3rd | Wiley | 9781118144343 | Recommended | |
| CHM 2210L/2211L | Organic Chemistry Lab 1 & 2 | PBSC Organic Lab Manual | Pavia, Lampman, Kriz, Engel | 3rd | Cengage | 9781133444602 | Fall 2014 | Fall 2017 |
| CHM 2210L/2211L | Organic Chemistry Lab 1 & 2 | Organic Chemistry Lab Notebook | | | Hayden-McNeil | 9781930882744 | | |
| | For All chemistry courses | Sapling Code | | | | 9780983385950 | | |

Appendix B:

Palm Beach State College(Chemistry Cluster)

| | |
|-------------------------------|------------------|
| <u>SUMMARY</u> | <u>%</u> |
| READABILITY | 40 |
| REINFORCEMENT | 10 |
| ORGANIZATION | 10 |
| STUDENT MOTIVATION | 20 |
| SUPPLIMENTAL MATERIALS | <u>20</u> |
| | 100 |

TEXTBOOK SELECTION CRITERIA

| | | | | | | | | | | |
|------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|-------|
| INDIVIDUAL TEXTBOOKS | | | | | | | | | | Total |
| READABILITY | | | | | | | | | | 40 |
| The vocabulary & readability level is appropriate for PBSC | | | | | | | | | | |
| The text uses practical examples for abstract ideas | | | | | | | | | | |
| New concepts introduced one at a time | | | | | | | | | | |
| Definitions understandable & at lower abstraction level than concepts. | | | | | | | | | | |
| Sentence complexity is appropriate for PBSC students | | | | | | | | | | |
| Objectives for each section and chapter are clearly stated. | | | | | | | | | | |
| Text avoids irrelevant details | | | | | | | | | | |
| Chapters are divided into manageable sections | | | | | | | | | | |
| Illustrations are appealing and thought provoking | | | | | | | | | | |
| Teachers manual provides list of additional resources | | | | | | | | | | |
| Calculation details are explained. | | | | | | | | | | |
| | | | | | | | | | | |
| REINFORCEMENT | | | | | | | | | | 10 |
| Adequate # of practice problems | | | | | | | | | | |
| Internet resource information | | | | | | | | | | |
| Appropriate graphs, tables and illustrations etc. | | | | | | | | | | |
| Suggested activities that provide for a broad range of ability levels. | | | | | | | | | | |
| Questions encourage PBSC students to draw inferences | | | | | | | | | | |
| Discussion questions encourage creative thinking | | | | | | | | | | |
| Questions clearly worded and at an appropriate level. | | | | | | | | | | |
| | | | | | | | | | | |
| ORGANIZATION | | | | | | | | | | 10 |

| | | | | | | | | | | |
|----------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|----|
| Introduction for each chapter? | | | | | | | | | | |
| Clear and simple organization pattern chapter to chapter. | | | | | | | | | | |
| Chapter organization clear, simple and explicit? | | | | | | | | | | |
| Extensive glossary? | | | | | | | | | | |
| Does the appendix have all the necessary reference tables etc.? | | | | | | | | | | |
| Do resource materials interrelate well with the textbook? | | | | | | | | | | |
| MOTIVATION OF STUDENTS | | | | | | | | | | 20 |
| Does the teacher's manual suggest activities for student motivation? | | | | | | | | | | |
| Is the writing style appealing to PBSC students? | | | | | | | | | | |
| Suggested practical applications of presented information? | | | | | | | | | | |
| Are the print size, layout and illustrations appealing? | | | | | | | | | | |
| | | | | | | | | | | |
| SUPPLIMENTAL MATERIALS | | | | | | | | | | 20 |
| Associated lab manual either hardcopy or electronic? | | | | | | | | | | |
| Student Study guide with solved questions in hardcopy or electronic? | | | | | | | | | | |
| Test bank quality and ease of test generation? | | | | | | | | | | |
| Instructors Guide | | | | | | | | | | |
| Learning Information System and its ease of use? | | | | | | | | | | |
| Online homework linked to text? | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

Appendix C:

Palm Beach State College Embedded Assessment for General Education Questions to Consider Going Forward

Application and administration of assessment

- Did we all administer the assessment the same way?
- What is the best application – homework? As a test in and of itself? As an in-class assignment? Counts toward grade as much as other assignments?
- Were there any changes to how you implemented this year (perhaps based on conversations last spring)?

Using the results

- Comparing the data to last year, what can we glean from the results?
- How do the results help or hinder our conclusions about student learning?
- Do the results mirror student performance on other assignments in the course?
- How does the assessment help us measure the outcome we selected?
- Did we set a reasonable benchmark?
- What changes in outcomes, assessment instruments, or benchmarks might be necessary for us to move forward in a meaningful way?
- Do we believe students are performing as well as our results might suggest?
- Do these results mirror student performance on other assignments in the course?
- What are our expectations of students going forward? Do we reflect those expectations in this assessment?

Adjuncts

- There is still an issue communicating this initiative to adjuncts - how can we ensure better consistency among adjuncts in all of these areas?
- What, if anything, can we do differently to communicate assessment requirements to our adjuncts?
- What was done this cycle to encourage adjuncts to participate?
- What, if anything, can we do to as faculty to support our adjuncts?

Future Considerations

- What are the benefits of collecting data from all sections of each course when using common assessments as a General Education measure?
- What are the benefits of collecting data in only a sample of sections of each course when using common assessments as a General Education measure?
- What are the benefits of using common assessments only one semester per year?
- What are the benefits of using common assessments in fall and spring?

Palm Beach State College Embedded Assessment for General Education Development Day Cluster Agenda Item

Tentative Item:

Required by April 29th (Cluster Chairs should submit on behalf of cluster):

1. How do your current cycle results indicate
 - a. your assessment instrument is measuring your selected outcome?
 - b. you have selected a reasonable benchmark?
2. In reflecting on this process and results, what changes might be necessary to move forward in a meaningful way? Answers should be related to revisions of the outcome, instrument, or benchmarks you've previously selected.
 - a. *Note: Revisions of outcomes must go through curriculum.*
 - b. *Note: Revisions (or plans to revise) the common assessment instrument or benchmark should be communicated to IRE or recorded in the minutes; contact IRE for assistance if needed. Reviewed changes can be implemented in the Fall 2016 semester.*

Required items above may be modified slightly.

Optional items may be added to the agenda but anything extra will also be included in the survey on March 24th so that faculty can respond individually if there is not time for cluster discussion.

NATURAL SCIENCE GENERAL EDUCATION LEARNING OUTCOME:

Demonstrate comprehension of fundamental concepts, principles, or processes about the natural world.

CHM1025 COURSE LEARNING OUTCOME ASSESSED:

Evaluate the mathematical relationships within balanced chemical equations.

COMMON ASSESSMENT: Five multiple-choice questions

BENCHMARK: At least 60% of students will achieve a score of 3 out of 5 on the assessment.

2014

| CHM1025 | | | |
|----------------------------------------------------|----------|----------|---------------------|
| Instructors That Entered Scores = 8 | | | |
| Score Range = 0-5; Average Score = 2.893 | | | |
| Sections Offered = 9; Sections Entered = 8; | | | |
| Enrollment = 200; Scores Entered = 112 | | | |
| Score | n | % | Cumulative % |
| 5 | 19 | 17.0% | 17.0% |
| 4 | 19 | 17.0% | 33.9% |
| 3 | 32 | 28.6% | 62.5% |
| 2 | 19 | 17.0% | 79.5% |
| 1 | 19 | 17.0% | 96.4% |
| 0 | 4 | 3.6% | 100.0% |

2015

| CHM1025 | | | |
|----------------------------------------------------|----------|----------|---------------------|
| Instructors That Entered Scores = 3 | | | |
| Score Range = 0-5; Average Score = 3.344 | | | |
| Sections Offered = 7; Sections Entered = 4; | | | |
| Enrollment = 179; Scores Entered = 93 | | | |
| Score | n | % | Cumulative % |
| 5 | 16 | 17.2% | 17.2% |
| 4 | 31 | 33.3% | 50.5% |
| 3 | 20 | 21.5% | 72.0% |
| 2 | 22 | 23.7% | 95.7% |
| 1 | 3 | 3.2% | 98.9% |
| 0 | 1 | 1.1% | 100.0% |

NATURAL SCIENCE GENERAL EDUCATION LEARNING OUTCOME:

Demonstrate comprehension of fundamental concepts, principles, or processes about the natural world.

CHM1032 COURSE LEARNING OUTCOME ASSESSED: Recognize organic families and classes of compounds.

COMMON ASSESSMENT: Five multiple-choice questions

BENCHMARK: At least 80% of students will achieve a score of 3 out of 5 on the assessment.

2014

| CHM1032 Instructors That Entered Scores = 8 Score Range = 0-5; Average Score = 3.603 Sections Offered = 19; Sections Entered = 15; Enrollment = 575; Scores Entered = 370 | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-------|--------------|
| Score | n | % | Cumulative % |
| 5 | 85 | 23.0% | 23.0% |
| 4 | 135 | 36.5% | 59.5% |
| 3 | 83 | 22.4% | 81.9% |
| 2 | 56 | 15.1% | 97.0% |
| 1 | 7 | 1.9% | 98.9% |
| 0 | 4 | 1.1% | 100.0% |

2015

| CHM1032 Instructors That Entered Scores = 8 Score Range = 0-5; Average Score = 3.640 Sections Offered = 19; Sections Entered = 15; Enrollment = 564; Scores Entered = 364 | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-------|--------------|
| Score | n | % | Cumulative % |
| 5 | 96 | 26.4% | 26.4% |
| 4 | 123 | 33.8% | 60.2% |
| 3 | 90 | 24.7% | 84.9% |
| 2 | 32 | 8.8% | 93.7% |
| 1 | 19 | 5.2% | 98.9% |
| 0 | 4 | 1.1% | 100.0% |

NATURAL SCIENCE GENERAL EDUCATION LEARNING OUTCOME:

Demonstrate comprehension of fundamental concepts, principles, or processes about the natural world.

CHM1045 COURSE LEARNING OUTCOME ASSESSED: Identify the quantitative relationships in formulas and chemical.

COMMON ASSESSMENT: Five multiple-choice questions

BENCHMARK: At least 50% of students will achieve a score of 3 out of 5 on the assessment.

2014

| CHM1045 | | | |
|-----------------------------------------------|----|-------|--------------|
| Instructors That Entered Scores = 8 | | | |
| Score Range = 0-5; Average Score = 2.894 | | | |
| Sections Offered = 17; Sections Entered = 16; | | | |
| Enrollment = 527; Scores Entered = 340 | | | |
| Score | n | % | Cumulative % |
| 5 | 72 | 21.2% | 21.2% |
| 4 | 59 | 17.4% | 38.5% |
| 3 | 64 | 18.8% | 57.4% |
| 2 | 74 | 21.8% | 79.1% |
| 1 | 48 | 14.1% | 93.2% |
| 0 | 23 | 6.8% | 100.0% |

2015

| CHM1045 | | | |
|-----------------------------------------------|----|-------|--------------|
| Instructors That Entered Scores = 8 | | | |
| Score Range = 0-5; Average Score = 2.930 | | | |
| Sections Offered = 18; Sections Entered = 14; | | | |
| Enrollment = 589; Scores Entered = 316 | | | |
| Score | n | % | Cumulative % |
| 5 | 62 | 19.6% | 19.6% |
| 4 | 57 | 18.0% | 37.7% |
| 3 | 76 | 24.1% | 61.7% |
| 2 | 55 | 17.4% | 79.1% |
| 1 | 50 | 15.8% | 94.9% |
| 0 | 16 | 5.1% | 100.0% |

NATURAL SCIENCE GENERAL EDUCATION LEARNING OUTCOME:

Demonstrate comprehension of fundamental concepts, principles, or processes about the natural world.

CHM1046 COURSE LEARNING OUTCOME ASSESSED: Explain acids, bases, and pH.

COMMON ASSESSMENT: Five multiple-choice questions

BENCHMARK: At least 70% of students will achieve a score of 3 out of 5 on the assessment.

2014

| CHM1046 Instructors That Entered Scores = 5 Score Range = 0-5; Average Score = 3.695 Sections Offered = 6; Sections Entered = 5; Enrollment = 198; Scores Entered = 131 | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-------|--------------|
| Score | n | % | Cumulative % |
| 5 | 54 | 41.2% | 41.2% |
| 4 | 27 | 20.6% | 61.8% |
| 3 | 21 | 16.0% | 77.9% |
| 2 | 16 | 12.2% | 90.1% |
| 1 | 11 | 8.4% | 98.5% |
| 0 | 2 | 1.5% | 100.0% |

2015

| CHM1046 Instructors That Entered Scores = 3 Score Range = 0-5; Average Score = 2.893 Sections Offered = 6; Sections Entered = 3; Enrollment = 192; Scores Entered = 75 | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-------|--------------|
| Score | n | % | Cumulative % |
| 5 | 17 | 22.7% | 22.7% |
| 4 | 8 | 10.7% | 33.3% |
| 3 | 20 | 26.7% | 60.0% |
| 2 | 12 | 16.0% | 76.0% |
| 1 | 16 | 21.3% | 97.3% |
| 0 | 2 | 2.7% | 100.0% |