# ASSESSMENT OF STUDENT ACADEMIC ACHIEVEMENT 

## A Report on the 2008-2009 Assessment Cycle

## Submitted to the <br> Northland Pioneer College Instructional Council

by the<br>Assessment of Student Knowledge (ASK) Sub-committee:

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## DEPARTMENTAL REPORTS

Biology
Chemistry
Community Education
Computer Information Systems
Cosmetology
ECD
Education
EMT
English
Fire Science
General Education
Geology
Humanities
Industrial Maintenance and Operations
Math
Nursing
Real Estate
Social \& Behavioral Science
TLC
WACH (formerly WLD, ATO, BOC, \& HQO)

## OVERVIEW of the 2008 - 2009 ASSESSMENT CYCLE

During the 2008-2009 academic year, NPC began to implement several minor changes to the assessment process were implemented. The impetus for these changes derives, in part, from NPC's participation in the Higher Learning Commission's Assessment Academy and from recent modifications of the college's shared governance procedure. The Assessment of Student Knowledge (ASK) subcommittee of the Instructional Council (IC) was formally established in May 2008 (Appendix 1). The subcommittee met thirteen times during the year, developed an assessment website, twice completed required revisions of its Assessment Academy project, and spearheaded several activities designed to improve the assessment of student knowledge throughout the college.

The subcommittee's proposed student learning outcomes (SLO) for the General Education (GE) program were adopted by IC in December 2008 (appendix 2). ASK has revised its plan for assessing the six learning outcome components of general education and has had initial conversations with departments concerning incorporation of these outcomes into departmental assessments at some point in the future.

The Faculty Handbook for the Assessment of Student Academic Achievement (1999) outlines the basic assessment process at Northland Pioneer College. NPC followed a two year assessment cycle model until the 2008-2009 Academic Year when it shifted to a oneyear cycle. This change was recommended by the ASK subcommittee in an effort enhance the use of data for the timely improvement of student learning by facilitating a "closing of the loop" (apply knowledge learned through assessment to improved strategies to improve student learning). In addition, the subcommittee reasoned that a yearly involvement in all phases of the assessment cycle would assist in promoting greater faculty recognition of, and attention to, assessment issues.

During the 2008-2009, the subcommittee also introduced a "Planning Day" activity into the assessment cycle. Planning has the dual purpose of orienting faculty to the assessment process near the beginning of the academic year and providing subcommittee support for departmental planning efforts.

The assessment process at NPC begins with the development of assessment tools. Assessment instruments are collected during the spring and fall. Departmental members evaluate the student work collected during following spring semester. Most of the evaluation takes place on "Reading Day," when departmental members collectively read and discuss student work. This is followed by "Dialog Day" when representatives from across departments gather to discuss the results derived from the individual departments and to share ideas about revising assessment tools and implementing curricular changes.

Figure 1 displays the general model for assessment along with the 2008-2009 dates for Reading Day and Dialog Day. This information was distributed to faculty attending the Fall 2008 Planning Day activity. Notes on Planning Day are reproduced in Appendix 3.

[^0]of the report were made available to those attending Dialog Day. The assessment report includes a cover sheet that indicates the "activity level" of the department's assessment efforts, ${ }^{1}$ a brief summary and analysis of the assessment data collected, and (ideally) recommendations for improvements in teaching strategies and data collection. Table 2 summarizes the activity level by department. Table 3 summarizes the sampling, method of assessment, and comments for each departmental report.

Thirty-four people participated in the Dialog Day, including 27 faculty members (about onethird of the full-time faculty) representing 20 departments and programs. Participants also included President Swarthout, the Vice President for Learning and Student Services, three deans, an academic advisor, and the coordinator of Business and Industry Training (Table 4). The Dialog Day agenda and a report on the Dialog Day conversations are included in Appendix 4.

In the judgment of the ASK subcommittee, Northland Pioneer College has generally made progress in assessment over the past year. Assessment procedures have been more widely disseminated. The departmental reports are generally focused and substantive, providing a baseline for developing strategies to improve student learning. Several departments that have been marginally involved in assessment in the past, such as WACH and Cosmetology, submitted reports that provided evidence based plans for improvements and plans for future assessment. Two departments that have previously submitted assessment reports, did not submit reports this year but one of these (the Real Estate program) had been suspended. A few departments submitted reports that were relatively weak. ASK subcommittee members plan to work with these departments in the 2009-2010 academic year.

The ASK subcommittee concluded the academic year with a meeting on April $28^{\text {th }}$ to set the calendar for assessment activities for the next academic year. The assessment cycle will continue according to the following schedule:

Planning Day
Reading Day
Departmental Assessment Reports Due Dialog Day

September 18, 2009
February 12, 2010
March 19, 2010
April 9, 2010.

The ASK subcommittee expects the next academic year to build on the progress made in the past year.

[^1]FIGURE 1: NPC's GENERAL ASSESSMENT MODEL


TABLE 1: ASK ASSESSMENT REPORT READERS
Spring 2009

| Committee members: |  | S Newman | B Hockabout | P Canary | E Bishop | D Jolly | E Henderson |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Department reports: |  |  |  |  |  |  |  |  |
| AIS/ BUŞ | No report |  |  | X |  |  | X |  |
| BIO |  | X |  |  |  | X |  |  |
| Chemistry |  |  |  | X |  | X | X |  |
| CIS |  |  | X | X |  |  |  |  |
| Community Education |  |  | X |  | X |  |  |  |
| Cosmetology |  | X |  | X |  |  |  |  |
| ECD |  |  | X |  | X |  |  |  |
| EDU |  | X |  |  |  |  | X |  |
| EMT |  |  | X |  |  | X |  |  |
| ENL |  | X |  | X |  | X |  |  |
| FRS |  |  | X |  |  |  | X |  |
| General Education | Read by All |  |  |  |  |  |  |  |
| Geology |  |  | X | X |  |  |  |  |
| Humanities |  |  |  |  | X | X |  |  |
| IMO /[ITP] |  |  |  |  | X |  | X |  |
| MAT |  | X |  |  | X |  |  |  |
| Med Assistant |  |  |  | X | X |  | X |  |
| NUR |  | X |  | X |  |  |  |  |
| Real Estate | No report |  |  |  |  |  |  |  |
| Social/Behavioral Science |  | X |  |  |  | X |  |  |
| Therapeutic Massage | No report |  |  | X |  |  | X |  |
| TLC |  |  |  |  | X | X |  |  |
| WACH <br> (WLD ATO BOC, HQO) |  |  | X | X |  |  |  |  |

TABLE 2: Assessment of Student Learning Summary - Department by Level 2006, 2008, 2009

| Department | Level <br> $\mathbf{2 0 0 6}$ | Level <br> $\mathbf{2 0 0 8}$ | Level <br> $\mathbf{2 0 0 9}$ |
| :--- | :--- | :--- | :--- |
| Administrative Information Services | V | $\mathbf{0}$ | No report |
| Biology | V | V | IV |
| Chemistry | V | I | II |
| Community Education | No report | II | 0 |
| Computer Information Systems | No report | I | IV |
| Cosmetology | No report | I | III |
| Early Childhood Development | V | V | V |
| Education | III | V | V |
| Emergency Medical Technology | III | III | III |
| English | V | V | V |
| Fire Science | II | III | III |
| General Education | No report | No report | III |
| Geology | V | No report | V |
| Humanities | III | V | V |
| Industrial Maintenance \& Operations | $?$ | III | III |
| Mathematics | IV | II | IV |
| Nursing | V | V | V |
| Real Estate | II | No report | No report |
| Social and Behavioral Sciences | V | V | V |
| The Learning Cornerstone | V | V | III |
| WACH [combines WLD,ATO,BOC,HQO] | No report | III | III |
|  |  |  |  |

TABLE 3: Summary of Assessment of Student Academic Achievement Reports: April 2009

|  | Level | Division | Type of Assessment | Unit of analysis | NOTES |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Department |  |  |  |  |  |
| AIS | No report | CTE |  |  |  |
| BIO | IV | A\&S | Evolution surveys; Item scores on final exam by chapter | BIO181 students (all; n varies by semester) | Plan for next year presented |
| BUS | No report | CTE |  |  |  |
| Chemistry | II | A\&S | Item scores on final exam by chapter | CHM130 students ( $\mathrm{n}=37$ ) | Repeat study in Fall 2009 |
| Community Education | -- | WD | Marketing |  | A marketing related report rather than an assessment of student learning outcomes |
| CIS | IV | CTE |  | CIS100 students ( $\mathrm{n}=49$ ) |  |
| Cosmetology | III | CTE | Comparison of state license exam subsection scores with state averages | $\mathrm{N}=31$ Exams on the "Set Up and Client Protection" section | Implemented additional procedures to |
| ECD | V | A\&S | Evaluation of Student Essays | ECD 175 Students ( $\mathrm{n}=30$ ) |  |
| EDU | V | A\&S | Embedded coursework and final grades | Students in EDU 200 | Need more detail on components rather than simply the final grades. Link assessment of specific assignments (examples attached) to overall performance? |
| EMS | III | WD | Comparison of student with prep class in Spring to those without in fall \& pass rates on National Registry of EMT (NREMT) examination | EMT 130 \& 132 students ( $\mathrm{n}=79$ ) | 54 students took NREMT exam |
| ENL | V | A\&S | Evaluation of Student essays on the "final analysis question" (prompt) using departmental rubric | $30 \%$ sample of Student completers of ENL101 $(\mathrm{n}=70)$ \& ENL $102(\mathrm{n}=32)$ | expand the assessment process to include the ENL101 research paper along with the final. ... will work on a grading criteria and rubric to measure these results. |
| FRS | III | WD | Student grade averages on chapter exams | FRS104 students ( $\mathrm{n}=$ ? ${ }^{\text {) }}$ | Comparison of hands-on with text based chapters |
| General Education | III | --- | Correlation of student term paper rubric scores for critical inquiry in SBS classes with student's previous general education coursework | ~300 students in 10 SBS courses taught by 11 faculty | Need to add Humanities and sciences components; Need to assess "effective communication" in 2009-2010 |
| Geology | V | A\&S | Analysis of lab reports and final exam scores over time | GLG students | Needs further clarifications of sample and clearer presentation of results |
| Humanities | V | A\&S | Evaluation (using holistic scoring rubric) of student critiques in 14 Humanities general education courses | Sample of HUM students ( $\mathrm{n}=77$ ) | Humanities includes Performing Arts, Fine Arts, Philosophy and English (only English submits a separate report - for composition courses) |
| IMO | III | WD | Comparison of study guide scores and CBT (computer based training) scores | ITP 210 sample of students ( $\mathrm{n}=10$ ) |  |


| MAT | III | A\&S | Final Exam scores compared to course <br> grade by instructor use of in class or <br> take home chapter tests | Students in an <br> undesignated course or <br> courses (n=44) | Need to designate courses |
| :--- | :--- | :--- | :--- | :--- | :--- |
| NUR | V | NUR | Examination of student success <br> predicted by prerequisite grades and <br> national standardized exams <br> 1 year post-grad survey <br> Employer surveys | Students at various points <br> within the program | Comparisons are made with national and state <br> pass rates |
| Real Estate | No report | WD |  |  |  |
|  <br> Behavioral <br> Science | III | A\&S | Correlation of student term paper rubric <br> scores with previous coursework <br> completed | 298 students in 10 <br> courses taught by 11 <br> faculty in Fall 2008 | Program suspended |
| TLC | V | TLC | Comparison of GED pass rates of OTE <br> completers (2008) and prior (2007) <br> students without this opprtunity | 169 students taking TLC <br> 099: Opportunities <br> Through Education (OTE) |  |
| WACH (formerly <br>  | III | CTE | Voluntary personal safety evaluation <br> completed by students <br> HQO) | 174 students in 12 multi- <br> course labs in 3 <br> departments | Well articulated plan to assess five areas <br> over next 5 years |

Table 4: Dialog Day Attendees: 2006-2009

| Department | Division | Departmental Representatives for Dialog Day 2009 | Departmental Representatives for Dialog Day 2008 | Departmental Representatives for Dialog Day 2006 |
| :---: | :---: | :---: | :---: | :---: |
| AIS | CTE | McCabe |  |  |
| BIO | A\&S | Ott |  | Canary |
| BUS | CTE | Baum-Gordon |  |  |
| Chemistry | A\&S | Hutton | Maloney | Maloney |
| CIS | CTE | Chapin, Bishop | Seely, Bishop |  |
| Community Education | WFD | Aceves | Aceves |  |
| Cosmetology | CTE | --- |  |  |
| ECD | A\&S | Ball |  | Endfield |
| EDU | A\&S | Heimann | Heimann | Heimann |
| EMT | WFD | --- |  |  |
| ENL | A\&S | Witt, Goulet, Richins | Goulet | O'Hop |
| FRS | WFD | Fisher | Solomon | Burt |
| General Education | ASK | [ASK members] |  |  |
| Geology | A\&S | --- | Porch |  |
| Humanities | A\&S | Hockabout, Bohn, Holtan, Mathias | Hockabout, Solomonson, Mathias | Hockabout |
| IMO /[ITP] | WFD | Keith | Keith |  |
| Library | A\&S |  | French |  |
| MAT | A\&S | Graham | Graham | Graham |
| Med Asst. | NUR | Stewart |  |  |
| NUR | NUR | Jolly | Jolly | Hodgson |
| Real Estate ${ }^{1}$ | WFD | --- |  |  |
| Social/Behavioral Science | A\&S | Hassard | Hassard | Deaton |
| TLC | TLC | Jackson, Newman |  | Valichnac |
| WACH | CTE | Casey, Hoskins, Munde | Casey, Hoskins, Darst |  |
|  |  |  |  |  |
| BIT |  | Dickerson |  |  |
| Academic Advising |  | Thompson |  |  |
| Administrators |  | Swarthout, Vest, Henderson, Canary, Richie | Belknap, Canary, Nagle, McGinty, Fulcher | Belknap, Fairman, Swarthout, Fulcher, Henderson, Manthei |
| Faculty Total |  | 27 | 19 | 11 |
| Total: Other |  | 7 | 5 | 6 |

[^2]SIGN-IN SHEET - Dialog Day, April 3, 2009


## APPENDIX 1

## The Assessment of Student of Knowledge (ASK) Subcommittee

The Assessment of Student of Knowledge (ASK) Subcommittee shall review, monitor and recommend improvements in the assessment of student learning and student knowledge to the Instructional Council.

Meetings: The ASK Subcommittee shall meet at least twice a semester, electing its chair at the beginning of the fall academic term.

## Membership:

The Committee shall be comprised of

- the five members of NPC's Higher Learning Commission Assessment Academy Team, appointed by the President
- a faculty member from each division that is not represented on the academy team, appointed by the faculty association
- an academic advisor appointed by the Vice President for Student Services
- a student appointed by the Student Government Association


## Committee Service Length:

Members of the assessment academy team shall serve for four years (the duration of assessment academy). Other members shall serve two year terms.

## Responsibilities:

1. Review general education and other curricular outcomes;
2. Review the procedures and plans used to assess of student knowledge by all departments and programs in the college;
3. Coordinate and support the annual assessment of student knowledge by departments and programs;
4. Develop and implement assessments of student knowledge that involve multiple departments and programs, especially in the area of general education and the modality of instruction.
5. Undertake, as directed by the Instructional Council, other projects related to the assessment of student knowledge;
6. Report to the Instructional Council at least once every semester
7. Provide an annual report to the Instructional Council on recommendations and findings related to the assessment of student learning and knowledge.

## APPENDIX 2

General Education Student Learning Outcomes Assessment of Student Knowledge Subcommittee<br>December 4, 2008

## MISSION STATEMENT:

"The NPC general education program promotes skills in critical inquiry, communication and an understanding of diversity that supports a life-long intellectual engagement in cultures and the natural world."

NPC 1-Critical Thinking / Critical Inquiry: Students will develop the practice of disciplined, independent thinking that allows for the analysis and evaluation of information.
NPC 2 - Effective Communication: Students will develop thoughtful and precise verbal and written skills across a variety of social venues.
NPC 3 - Quantitative Reasoning: Students will develop skills in the interpretation, explanation, and manipulation of quantitative data.
NPC 4 - Scientific Inquiry: Students will develop the ability to formulate and assess hypotheses and analyze and evaluate theoretical frameworks.
NPC 5 - Information Literacy: Students will demonstrate skills in locating, assessing, and analyzing information effectively, including the use of digital resources and tools.
NPC 6 - Diversity: Students will develop knowledge of diverse cultural and natural environments.

Adopted by Instructional Council December 12, 2008

# APPENDIX 3 <br> PLANNING DAY: NOTES and AGENDA 

NOTES on ASSESSMENT PLANNING DAY FORUM
October 242008 @ SCC (LC101 -- Symposium); 12:30 to 3:00 p.m.
After welcome and the introduction of the 25 participants, the agenda and main talking points were displayed on the screen at the front of the room. Throughout the forum, the relevant points were displayed.
Barbara Hockabout spoke about the purpose of assessment. She noted that assessment is an activity that faculty engage continually in an informal way and that at this time, we have a chance to design our assessments of student learning in our ways. Eric Henderson provided a brief overview of the recent history of assessment practices and how Northland Pioneer College has historically approached assessment. He reiterated that instructors want to know that what students are learning and that fundamental curiosity, not the need for compliance, should drive our approach to assessment. He also briefly described NPC's assessment academy general education project and the committee's interest in looking at modalities of instruction. Shannon Newman focused on how faculty can develop questions that explore what faculty members are already curious about regarding how students are learning in various classes and noted that assessment projects do not need to be overwhelming or to cover everything. Rather, projects should start with a narrow and manageable focus on one or two important questions.

Eric Bishop then reviewed the three basic steps of assessment:

- Step 1: Articulate your goals for student learning
- Step 2: Gather evidence about how well students are meeting the goals
- Step 3: Use the information for improvement.

Participants were then asked to write out one or two questions they would like to know about how the students in class(es) are learning - that is, what are one or two learning goals and what would they like to know in order to find out if their students are achieving these goals.
Then participants were asked to discuss their questions with two or three other people. Most of the self-selected groups were made up of colleagues within the same department or division. Each group received a bag of M\&Ms to help energize the discussion. After about ten minutes of exchanging ideas about the questions and how one might gather evidence to answer these questions, participants were asked to form new groups with people from other departments.
After this there was some general discussion of what are the skills in different disciplines that are important to assess. For example, in the field of welding the faculty are confident that they have adequate means of assessing the basic welding skills of students but there is an interest in assessing the so-called "soft skills" related to comportment in job situations and in enhancing students' own confidence in their skills. As the department already has students engage in giving short demonstration speeches, participants articulated ways that the existing class activity could be measure on a rubric and how student progress in this area could be charted over time. Additional questions along with some responses are attached to this report.
Eric Bishop then went over the "Three Steps to Assessment" once again but with specific reference to NPC's assessment cycle (see attachment) that was distributed as a handout. The formulation of questions and the gathering of evidence should begin immediately. In the early spring, on Reading Day, departmental faculty will meet to analyzing the evidence. It was emphasized that this meeting should involve as many members of the department as
possible. The more people who analyze the data, the better. The faculty should also develop some recommendations, based on this analysis of the data, for implementing changes.

About one month following Reading Day departments will submit their written reports to the ASK committee. While one or two people may actually write the report, it should be reviewed by all departmental members. The committee suggested that the report need not be lengthy. A two or three page summary of the assessment activity and the data should be sufficient. There were several questions about report format. The committee would like the form of the report to be flexible and to be shaped by the questions asked and the information on student learning that is analyzed. However, the general format (beyond the continued use of the report cover sheet) should follow the three basic assessment steps:

1. The question posed: that is, articulate the goal for student learning that is assessed and briefly explain why it is a significant question for which faculty in the department are seeking an answer.
2. Describe how the information was gathered: that is, what methods were used to collect information on student learning. The data may be qualitative, quantitative, or processual. More than one type of data may be collected
3. Analyze the data: that is, explain what the data tell you about how students are learning, how they are (or are not) achieving the goals you articulated in step 1. Most importantly, make one or more recommendations concerning how you can use these data to implement a change that is designed to improve student learning outcomes.
The reports will be shared and about two weeks to a month following submission of the reports, faculty from across departments will discuss what has been learned (and not learned) about student achievement of outcomes on Dialog Day. Faculty will discuss what worked and what did not. This discussion is designed to stimulate suggestions from throughout the college about how to implement improvements in student learning outcomes. Implementing the recommendations to improve student learning, or "closing the loop" becomes the basis for assessment the following year - that is, determining whether the changes did contribute to an improvement in student learning.
The meeting concluded with some discussion of continuing communication between the committee and interested faculty. The committee plans to develop a website to post helpful information. The committee asked for advice and recommendations for improving NPC's assessment processes. The consensus seemed to be that the process was working well and that the tasks were not as daunting as some had imagined prior to the forum.

## AGENDA for ASSESSMENT PLANNING DAY <br> October 24, 2008 <br> SCC

Item 1: Welcome and introductions
Item 2: Purpose of Assessment
Item 2a: Improving student learning
Item 2a: Informing our teaching and improving student learning
Item 2b: Accountability and Compliance (HLC \& Spellings Commission)
Item 2C: Discuss briefly the Assessment Academy Projects
Item 3: The Three Steps to Assessment
Item 3a) Step 1: Articulate your goals for student learning
Item 3b) Step 2: Gather evidence about how well students are meeting the goals
Item 3c) Step 3: Use the information for improvement.
Item 4: Preparing an Assessment report
Item 4a) Reading day - Analyzing the evidence
Item 4b) Writing the report
Item 4c) Dialog day - Sharing the report
Item 4d) Recommendations for improvement of student learning outcomes
Item 5: Implement the recommendations to improve student learning - closing the loop
Item 6: Additional Questions and concluding remarks

Participants
The forum was attended 17 faculty, 5 deans, 2 program coordinators, and President Swarthout

| NAME | DEPT |  | CAMPUS |
| :--- | :--- | :--- | :--- |
| Andrew Hassard | Soc/Beh Sciences | Faculty | SCC |
| Tracy Chase | CTE, AIS/BUS/CIS | Faculty | WMC |
| Jeannie McCabe | CTE | Faculty | SCC |
| Jennifer Witt | English | Faculty | WMC |
| Carey Dickerson | BIT/WFD | Coordinator | SCC |
| Peggy Belknap | WFD - District | Dean | PDC |
| Curtis Casey | WACH Dept | Faculty | WMC |
| Doug Seely | CIS | Faculty | WMC |
| Lynn Browne Wagner | EMS | Faculty | WMC |
| Autom Christensen | COS | Faculty | PDC |
| Claude Endfield | ECD | Dean | LCC |
| Heidi Fulcher | TLC | Faculty | PDC |
| Cynthia Hutton | BIO/CHM | Faculty | WMC |
| Russell Ott | BIO/CHM | Coordinator | SCC |
| Clover Baum-Gordon | CIS/BUS/AIS | Faculty | SCC |
| Loyelin Aceves | Community Ed. | Dean | WMC |
| Barry Graham | Math |  |  |
| Don Richie | CTE |  |  |
| Jeanne Swarthout |  | Faculty |  |
|  |  | Dean | WMC |
| ASK Members |  | Faculty | PDC |
| Eric Bishop | CIS | Faculty | SCC |
| Patrick Canary | Arts \& Sciences |  | PDC |
| Eric Henderson | Academic Development | Dean |  |
| Barbara Hockabout | English |  |  |
| Dana Jolly | Nursing | TLC |  |
| Shannon Newman |  |  |  |
|  |  |  |  |

# Assessment Planning Day 10/24/08 

## Questions from Participants

* Is critical thinking a buzz word?
* What constitutes improving student learning?
* Is pre-post enough?
* Should tests be announced or unannounced?
* How can I cover everything and have discussions too?
* How do I address the vast difference in entry level skills?
* Is it possible to address "one size fits all"?
* Critical analysis stuff - how to do it?
[Dr. Swarthout's suggestion: Do what you already know: simple - relevant - cheap]
* How do we create consistency in our departments?
(Encourage communication w/dept members and adjunct?)
* What assessment tools are administered to NAVIT students?
[Committee suggestion: Collaboration is HIGHLY recommended in creating reports]
[Committee suggestion: Consolidating outcomes in programs - ESSENTIAL


## ESSENTIALS]

[Committee suggestion: Encourage reflective practice in our assessment - Teaching Scholar role]

* What do you want the report to look like?
[Follow the 3 Steps: Articulate, gather evidence, use information for improvement.]


## Methods/Strategies Discussed

Interview students
Rubric
Peer evaluation
Student self-evaluation
Journals
Tests
Surveys

## HANDOUTS



## NPC's Assessment Cycle



# APPENDIX 4 DIALOG DAY: AGENDA and NOTES 

Dialog Day<br>April 3, 2009<br>Agenda<br>SCC 9:00am to 1:00 pm.<br>9:00-9:45 am General Session (Symposium Room):<br>Opening Comments - President Swarthout, Vice President Vest<br>Assessment: Accreditation and Accountability (Bishop)<br>Commitment v. Compliance<br>Higher Learning Commission Assessment Academy Update (Henderson)<br>Linking Assessment to Mission (College, Program, and Department) (Canary)<br>Overview of Assessment Procedures at NPC (Hockabout, Jolly, Henderson):<br>Assessment of Student Knowledge Subcommittee of Instructional Council<br>Course level assessment<br>Program assessment as a part of Annual Reports and Program Reviews<br>Plan for the Day -<br>Dialog - the importance of collaboration within and between departments (Newman)<br>9:45 Break<br>10-11:30 am Small Group Discussions of this year's reports -- Breakouts<br>Break out 1: LC 102 led by Shannon Newman (COS, EDU, Gen Ed, MAT)<br>Break out 2: LC 104 led by Barbara Hockabout (ECD, Fire, GLG, Hum, WACH)<br>Break out 3: LC 111 led by Pat Canary (AIS/BUS, CHM, NUR, TMP)<br>Break out 4: LCC133 led by Eric Bishop (CIS, Comm Ed, TLC, ITP, Med Asst)<br>Break out 5: LCC110 led by Dana Jolly (BIO, EMT, Soc-Behavioral Sciences, ENL)<br>11:45-12:30 General meeting (Symposium Room or LCC 102)<br>- Reports from small groups<br>General Discussion<br>12:30 Adjourn

Dialog Day<br>[April 3, 2009]<br>NOTES

Dialog Day began in the Symposium Room at the Silver Creek Campus with opening remarks from President Swarthout. Dr. Swarthout explained our relationship with the Higher Learning Commission and more on our self study visit. She encouraged participants in their break out sessions to: collaborate, clarify the outcomes and ask, "What is meaningful?" Vice President Vest reminded the body that assessment is a work in progress and our assessment reports are not an end, but rather part of an ongoing process. Members of the ASK (Assessment of Student Knowledge) subcommittee then briefly spoke to several assessment of student learning topics.

Eric Bishop reviewed the importance of commitment to assessment rather than mere compliance for accountability. He also handed out and briefly discussed "Six Fundamental Questions for Conversations on Student Learning" (attachment \#1). Eric Henderson then gave a brief update on NPC's Higher Learning Commission Assessment Academy Update project focused on general education outcomes. Pat Canary stressed the need to link assessment to the missions of the college and programs. Several committee members briefly outlined the assessment procedures at NPC and how assessment of student learning fits with the annual reports and program reviews. Barbara Hockabout reminded the body that we have a new opportunity for collaboration in our college commitment to sustainability. Finally, Shannon Newman stressed the importance of broadening the dialog on assessment among faculty within and across departments.

A total of 34 people attended the meeting representing 20 departments and programs. In attendance were 26 faculty members, five administrators, an academic advisor, and the coordinators of the BIT (Business Industry Training) and the Community Education programs (attachment \#2).

After a brief break, participants broke into five smaller groups to discuss specific reports across disciplinary boundaries. Each group was facilitated by a member of the ASK subcommittee and each explored a range of topics related to student learning using the departmental reports as a stimulus for discussion

Group 1: Shannon Newman (COS, EDU, Gen Ed, MAT - Heimann, Graham, Thompson) The Math Department looked at specific methods of teaching and answered the question do take home chapter tests prepare students for in class midterms and finals for three instructors in a given course? The department is determined to improve department wide collaboration on learning outcomes and to incorporate general education outcomes into its assessment 2009-2010 cycle. The Education Department was urged to move beyond course grades and to examine strengths and weaknesses of individual outcomes by examining one our two assignments. Cosmetology was not present. There were several technical questions concerning the general education repot followed by general discussion as to how Gen Ed outcomes might be similarly assessed in other departments

Group 2: Barbara Hockabout (ECD, Fire, GLG, Hum, WACH - Ball, Fisher, Casey, Hoskins, Munde, Holtan, Hutton, Bohn, Richie)

Participants followed Eric Bishop's suggestion in the general meeting to focus on "The Six Fundamental Questions on Student Learning" handout, and so, prior to delivering particular department reports, there ensued an enthusiastic discussion concerning student readiness for our courses and programs (how to improve entry level literacy skills and how to better measure them - "Do we grade content or skill?"). The discussion was spawned out of a request to define and discuss the six NPC General Education Learning Outcomes (written on the white board at the beginning of the meeting) and Critical Thinking, in particular. Everyone agreed that the outcomes are solid cornerstones to learning and all of us teach these all/most of these outcomes to various degrees in our classes. There was a general concern about the lack of student mastery of these skills, and in particular, in the area of Critical Thinking. There was also a question about how these outcomes are taught and tested differently in vocational and academic courses ("Do vocational programs need different education outcomes?"). However, it was the general consensus that most outcomes are reflective of/adaptable to our present curriculum.

Out of this general discussion about inadequate student preparation it was also agreed that to blame other academic institutions for the deficiencies is totally unproductive and therefore, a deep analysis of our present assessment and instructional strategies should take place. The group generated a list of suggestions to improve student learning in the areas of:

Instruction (instructor training, coaching, mentoring, collaboration, flexible scheduling, professional development in enhancing classroom application of general education outcomes, cross-disciplinary and cross-program communication and instructional units, share/post rubrics, department reports, and best practices, encourage more dialog day interaction opportunities, etc.).

Assessment (re-evaluate \& strengthen entrance requirements, re-evaluate current rubrics, consider ways to exploit the familiarity students have with the existing AIMS rubrics and test, more coordination with high school representatives, need more data about grads and better course data collection).

Student Readiness (strengthen advising, offer student orientation, strengthen TLC offerings, more English 101 pre requisites, etc.).

Department reports:
WACH report was applauded for its clarity and comprehensiveness. Other department representatives indicated they would use it as a model for future dept assessments. ECD report indicated a new course will be presented for approval. Participants suggested that more details about the course should be presented. ECD is in transition in department leadership and curriculum offerings due to recent legislation and articulation decisions made by the universities.
Fire Science is a department also in transition for the same reasons. Participants requested clearer definitions in the report (i.e. "hands on" and "non hands on" skills, identify particular skills in addition to chapter headings).
HUM report indicated that HUM will soon revise present rubric to conform to Social and Behavior Science rubric so as to better coordinate assessment data for a more comprehensive general education evaluation and also to better accommodate HLC academy requirements. Geology was submitted too late for consideration.

Over all, participants agreed that Dialog Day does have an impact on departments and programs, and that it is a valuable opportunity to evaluate assessment and communicate with other instructors across disciplines. Learning that other instructors experience similar issues is very helpful. Hearing different perspectives and exposure to a wide variety of instructional strategies is also very beneficial.

## Group 3: Pat Canary (AIS/BUS, CHM, NUR, Med Asst - McCabe, Baum-Gordon, Goulet, Stewart, Richie)

Departmental Reports discussed were Chemistry, Nursing, and Medical Assistant Program.

1. Chemistry - Dr. Canary stated that Chemistry has sort of done assessment. Last year's report was very short. This year, Dr. Canary, took data available for the comprehensive final exam for 37 students in CHM 130.
2. Nursing - Carol Stewart talked about the number of students passing at the different campuses in nursing. She stated that classroom performance shows how the nursing students do on the HESI test. She further stated that a modification of courses has taken place due to assessment reporting. Students are struggling with the critical thinking component in Nursing.
3. All disciplines are related, students need to learn that. Students need to think beyond just the book learning, think outside of the box. One suggestion was to show the students that the disciplines are related is for an English instructor to teach to another discipline such as Business, Chemistry, Nursing, etc., or a Chemistry instructor to teach to another discipline such as English, Math, etc.
4. Participants note that advising students so they know what programs they want to be in or the degree that they want to pursue needs strengthening. Questions to be posed to students include -- Why they are in a certain class, where do they want to go with their education, why are they taking a certain class.
5. Participants noted that in all three of the fields students are having trouble with vocabulary. Students are not retaining what they are reading.

Group 4: Eric Bishop (CIS, Comm Ed, TLC, ITP, -- Chapin, Aceves, Witt, Keith, Jackson, ---) The CIS department is planning to restructure the course evaluated. It plans to reduce the number of course assignments and to link exams and chapter assignments more directly to course outcomes. IMO plans to continue studying the difference between use of closed book tests and computer based training (CBT) assignment scores. Community Education focused more this year on marketing than on student learning outcomes. TLC discussed a number of data collection problems. The department says it needs to update its surveys

Group 5: Dana Jolly (BIO, EMT, Soc-Behavioral Sciences, ENL -- Ott, Richins, Hassard) Much of the discussion focused on measurement and how assessment is essentially research project. For example, in biology one analysis involved a post hoc use of hypothesis / theory questions on ungraded quizzes. This was an exploratory attempt to find some measure of the "scientific inquiry" component of general education outcomes. The students had nothing at stake in answering the hypothesis v . theory questions and hence there was some questioning of the reliability of the exercise. Measurement issues provided a common thread in this group. Unlike EMT (and other departments that can use external licensing or credentialing exams), the other
departments in this group have struggled to dome extent to develop valid and reliable measures of student learning outcomes.

## General Session II

Heavy winds led to a power outage as the small groups re-assembled for a general discussion. This may actually be one of the better things that occurred during the day. It allowed the group to meet in the lobby in a more relaxed "roundtable" format in the lobby of the SCC Learning Center. Apart from the persistent low level "beeping" of the emergency alarm, the session was enjoyable and productive. Each group reported very briefly on the specific reports and major questions raised by the reports. Group 3 also discussed the need to better incorporate critical thinking involved in chemistry and the allied health fields. Group 5 picked up on this theme and noted a certain level of frustration with developing measurement tools for a number of the outcomes that are not captured by standard licensing or certification tests. There was a widespread concern over the ability to place well qualified students in jobs given the economic situation, locally and nationally.

The discussion following the group reports picked up on the theme of employability and the importance of tying assessment of student learning to the placement of students in jobs and careers. Several faculty members expressed the importance of modeling professional behavior and assessing students' practice of behaviors related to employment such as demeanor, dress, and punctuality. This modeling also suggests that instructors should have a solid understanding of the general education outcomes, such as critical thinking, in order to successfully and effectively apply the general education outcomes in their classes. This further suggests more collaborative and professional development opportunities. Our college mission "To create, support and promote life-long learning," applies to our instructors as well.
There was also some discussion of future steps to take in the assessment process and in the improvement of instruction. It was suggested that the Dialog Day activities followed a "professional development" model and that participation should count as a professional development activity. There was also an interest in teaching across discipline boundaries through team teaching and having courses that embedded general education skills within a course that is not designated as general education -- for example, by teaching English within other disciplines. Over all, a refreshing level of camaraderie was achieved during the meeting. Comments reflected a deeper and more global concern for students in their preparation for employment. Teaching them relevant and applicable skills--skills which promote resourcefulness, resiliency, and confidence--will insure greater success for them at this time.
The session adjourned at about 12:45 (and the lights came back on at about the same time) Informal discussions continued for another 15 or 20 minutes among some faculty.

Compiled by ASK subcommittee, April 2009

## VI. ASSESSMENT OF STUDENT ACADEMIC ACHIEVEMENT REPORT 2008

## DEPARTMENT:__Administrative Information Services and Business

MISSION: (Circle One) General Education, Transfer Preparation, Employability, Developmental Education, Customized Education (Economic Development), or Personal Interest.

There are currently five levels of assessment that are possible within each department. These levels are related to development of the department assessment data gathering techniques and use of the information to fine-tune courses as necessary.

## Department Activity Level Checklist

| Activity Level: | Departmental Progress: |
| :---: | :---: |
| Level I: The department assessment processes have been detailed and developed for use by faculty. | Yes X $\qquad$ No $\qquad$ Attach copies of instruments used, instructions for students, time frames for activities, etc. |
| Level II: Data collection has been implemented. | Yes $\qquad$ No in process $\qquad$ <br> Attach copies of grading rubrics, analysis of test questions and overall findings. |
| Level III: Faculty, instructional leaders, and deans have analyzed the data. | Yes $\qquad$ No _in process $\qquad$ <br> Attach copies of conclusions reached by the assessment team. |
| Level IV: Faculty, instructional leaders, and deans have used the data to improve student academic achievement. | Yes $\qquad$ No _in process <br> Attach highlights related to curriculum and/or assessment changes which were implemented through this process such as revision of study guides, exams, changes in grading rubrics. |
| Level V: Data has been used to improve the assessment process. | Yes $\qquad$ No Not yet <br> Attach highlights related to improvements and/or streamlining the assessment process. |

Janet Hunter

Assessment Chair's Signature

Dean's Signature

4/17/08
Date

Date

## AS ASSESSMENT OF STUDENT ACADEMIC ACHIEVEMENT REPORT

## Level I:

The AIS/BUS department has implemented assessment in the form of pre and post-tests in several classes. Several courses, both transfer and occupationally-related have been chosen as representative for the achievement procedures. Results from previous years have shown an increase in the achievement of students due to course completion.

## Level II:

Data are collected and analyzed by the department chair and then results distributed to the division dean and department faculty.

## Level III:

Faculty and the division dean have analyzed previous data and have been satisfied that the assessment procedures are appropriate and provide the desired information.

## Level IV:

Faculty are reviewing the testing procedures as well as discussing additional/alternative measures of achievement, for example, based on DOE criteria that are available for some of the classes in the department.

## Level V:

We have not yet moved into this level of analysis.

## ASSESSMENT OF STUDENT ACADEMIC

 ACHIEVEMENT REPORT 2008
## DEPARTMENT: Biology

MISSION: (Circle One) General Education, Transfer Preparation, Employability, Developmental Education, Customized Education (Economic Development), or Personal Interest.

1 There are currently five levels of assessment that are possible within each department. These levels
are related to development of the department assessment data gathering techniques and use of the information to fine-tune courses as necessary.

## Department Activity Level Checklist

| Activity Level: | Departmental Progress: |
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| Level II: Data collection has been implemented. | $\text { Yes } \quad \mathrm{X} \text { No }$ $\qquad$ <br> Attach copies of grading rubrics, analysis of test questions and overall findings. |
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| Level V: Data has been used to improve the assessment process. | Yes X $\qquad$ No $\qquad$ <br> Attach highlights related to improvements and/or streamlining the assessment process. |


| $\frac{\text { Dr. James S. Jacob }}{\text { Assessment Chair's Signature }}$ |
| :--- |
| Dr. Patrick E. Canary |

Dean's Signature

4/11/08

## Date

4/11/08
Date

# Status Report Assessment of Student Academic Achievement 

Department of Biology April 2008

An assessment of student comprehension of the topics covered in General Biology I (BIO 181) conducted between 2002 and 2004 revealed that the concepts of Evolution, Metabolism, and the Origin and History of Life proved to be difficult topics for our students.

In 2004, the Biology Faculty were beginning our second phase of the Assessment Project during which these areas of the course were to be revised when the College accepted the Title III grant in partnership with Coconino Community College. As part of the General Education Curriculum, we discovered that BIO 181 would have to rewritten to make it available in an online format for the AA degree. The overlapping requirements of the Assessment Project and the Title III grant offered us an opportunity to address both tasks simultaneously. By undertaking a complete revision of General Biology I, the Faculty of the Department of Biology chose to create a new version of BIO 181 with the same content in both Web-based and classroom/lab-based versions of the course.

The course revision process was begun in August of 2005 and completed in August of 2007. Based on our assessment data, the Faculty of the Department of Biology agreed to frame each area of the course in the spirit of Theodosius Dobzhansky's statement in The American Biology Teacher, March 1973 (35:125-129), that "nothing in biology makes sense except in the light of evolution." By imbedding the common thread of evolution throughout the course, assessment of student academic achievement could be woven into each course topic as part of their understanding of evolution. The Biology Faculty identified papers/articles/summaries for the topics covered in each chapter that illustrated Dobzhansky's statement. Students were asked to read these articles and complete a voluntary online survey for each chapter that would help the Biology Faculty gather information on their level of understanding of biological evolution at each stage in the course. Students who completed a survey were rewarded for their effort with one grade point for each completed survey. The bonus points were added to the score for the associated lecture exam.

The same comprehensive final examination was given to all BIO 181 students at the end of the 2007 fall semester. An item analysis of the questions grouped by topic was completed for 79 students. The following bar chart depicts the percentage of correct answers for each of the following chapters.

C2: The Chemical Context of Life
C3: Water and the Fitness of the Environment
C4: Carbon and the Molecular Diversity of Life
C5: The Structure and Function of Macromolecules
C6: A Tour of the Cell
C7: Membrane Structure and Function
C8: An Introduction to Metabolism
C9: Cellular Respiration: Harvesting Chemical Energy
C10: Photosynthesis
C11: Cell Communication
C12: The Cell Cycle
C13: Meiosis and Sexual Life Cycles
C14: Mendel and the Gene Idea
C15: The Chromosomal Basis of Inheritance
C16: The Molecular Basis of Inheritance;
C17: From Gene to Protein
C18: The Genetics of Viruses and Bacteria
C19: Eukaryotic Genomes: Organization, Regulation, and Evolution
C20: DNA Technology and Genomics
C21: The Genetic Basis of Development
C22: Descent with Modification: A Darwinian View of Life
C23: The Evolution of Populations
C23: The Evolution of Populations continued
C24: The Origin of Species

Of the three areas found to be in need of improvement from our first phase of student assessment (metabolism, evolution, and origin and history of life), two were found to have relatively high number of correct answers on the final exam. Metabolism is covered in chapters 8,9 , and 10 . Evolution is covered in chapters 22, 23, and 24. The material on origin and history of life was shifted to General Biology II (BIO 182) as part of the revision of BIO 181. Questions from these areas had the highest percentage of correct answer on the final exam.

Percentage correct for BIO 181 Fall 2007


Statistical analyses will be performed when the have an adequate sample size by including data from this and future semesters. At this point in our assessment of student achievement in BIO 181, the Biology Faculty are encouraged by the apparent improvement of student comprehension of metabolism and evolution. We will continue to look for other tools to improve student comprehension of all topics within BIO 181.

Dr. James S. Jacob
Dr. Patrick E. Canary

## ASSESSMENT OF STUDENT ACADEMIC ACHIEVEMENT REPORT 2009

DEPARTMENT: $\qquad$
MISSION: (Circle One) General Education, Transfer Preparation, Employability, Developmental Education, Customized Education (Economic Development), or Personal Interest.

There are currently five levels of assessment that are possible within each department. These levels are related to development of the department assessment data gathering techniques and use of the information to fine-tune courses as necessary.

## Department Activity Level Checklist



## Chemistry 130 Assessment

## INTRODUCTION

The performance of the students taking Chemistry 130 in the fall of 2008 was assessed by means of a comprehensive final that was different from the pretest-posttest instrument that was used in the previous year. The new instrument was designed to have questions that were representative of the each of the chapters from the text book. The three participating instructors covered all of the chapters from the text. Additional questions were designed to ensure that the students were able to correctly identify common laboratory equipment that was used during the laboratory exercises during the semester. The change in the assessment instrument was necessitated because of the departure of the previous Chemistry Program chair and because of the poor quality of the previous assessment tool.

## DATA

Data from 37 students was provided and used in the analysis. The responses were grouped according to the chapters so that grasp of major ideas could be assessed. The following chart clearly indicates that certain concepts were not well grasped.

Fall 2008 data $(\mathrm{N}=37)$


Using the consideration of a value of $40 \%$ or less as an area of concern, it is clear that the material in chapters $4,7,11,13$ and 6(to a slightly lesser extent) are areas of concern. The topics associated with these chapters are:

| Chapter 4 | Chapter 7 | Chapter 11 | Chapter 13 | Chapter 6 |
| :--- | :--- | :--- | :--- | :--- |
| Matter and | The Language | The Gaseous | Liquids and | The Periodic |
| Energy | of Chemistry | State | Solids | Table |

## DISCUSSION AND ANALYSIS

Chapter 4 (Matter and Energy) is the first chapter that presents material that is truly chemistry. In contrast, the first three chapters provide an introduction Chemistry and the calculations that are involved in Chemistry. Chapters 6 (The Periodic Table) and 7 (The Language of Chemistry) provide the in depth material about Chemistry and chemical reactions. Chapters 11 (the Gaseous State) and 13 (Liquids and Solids) deal with some of the more complex concepts in introductory chemistry. The test does have a great deal of terminology that is part of the basic knowledge of chemistry. There are a limited number of questions that require any computations but there are many questions that deal with basic terminology and the application of basic concepts to determine the most appropriate answer.

It is possible that the results are pointing to a difference between the types of assignments that the students do and the comprehensive test that is administered at the end the semester. There was a effort to limit the number of computational problems on the test and to focus on the retention of basic concepts that are necessary to perform the computations. It is also possible that extent of the students' efforts were influenced by the knowledge that the final exam would have minimal impact on their overall grade.

## CONCLUSIONS

Since this analysis is only based upon the results from 37 students, it is recommended that the test be given in the fall of the 2009-10 academic year when the enrollment in Chemistry 130 is the highest. It would also be good to look at the results of the NAVIT students separate from the other students since that may add to the understanding of the general situation in the Chemistry 130 course.

## ASSESSMENT OF STUDENT ACADEMIC ACHIEVEMENT REPORT 2009

## DEPARTMENT: Computer Information Systems

MISSION: (Circle One) General Education, Transfer Preparation, Employability, Developmental Education, Customized Education (Economic Development), or Personal Interest.

There are currently five levels of assessment that are possible within each department. These levels are related to development of the department assessment data gathering techniques and use of the information to fine-tune courses as necessary.

Department Activity Level Checklist

| Activity Level: | Departmental Progress: |
| :---: | :---: |
| Level I: The department assessment processes have been detailed and developed for use by faculty. | Yes X $\qquad$ $\qquad$ <br> Attach copies of instruments used, instructions for students, time frames for activities, etc. |
| Level II: Data collection has been implemented. | Yes X No $\qquad$ <br> Attach copies of grading rubrics, analysis of test questions and overall findings. |
| Level III: Faculty, instructional leaders, and deans have analyzed the data. | Yes X $\qquad$ No $\qquad$ <br> Attach copies of conclusions reached by the assessment team. |
| Level IV: Faculty, instructional leaders, and deans have used the data to improve student academic achievement. | Yes X $\qquad$ No $\qquad$ <br> Attach highlights related to curriculum and/or assessment changes which were implemented through this process such as revision of study guides, exams, changes in grading rubrics. |
| Level V: Data has been used to improve the assessment process. | Yes $\qquad$ No X (in progress) <br> Attach highlights related to improvements and/ or streamlining the assessment process. |

## Assessment Chair's Signature

Dean's Signature

Date

Date

# Northland Pioneer College 

# Computer Information Systems Department 

Annual Assessment Report, March 2009<br>Prepared by Eric Bishop

## Introduction

The CIS department has taken a serious interest in assessing our "Introduction to Computer Science" course (CIS 100), to be renamed "Survey of Computer Information Systems" in Fall 2009. CIS 100 provides more enrollment than any other course within our department, is a general education requirement for the Associates degree in Business and is also a transfer course to Arizona's universities and participating community college districts.

For CIS 100, the members of the CIS department have been concerned about student performance on pre-test/post-test assessment, chapter exams, and the course final exam. Additionally, there have been shared observations that the workload in this course may be too much for students to handle, which may correlate to undesirable performance levels in student testing and even the high attrition rate of students enrolled in this course throughout the district.

In the past, we have examined data regarding student performance on pre-test/post-test assessment instruments. For the current assessment cycle, we have examined student performance on testing (chapter and final exams) over the past couple of years and hope to use this information to revise the structure of CIS 100 regarding student workload, points distribution and revisions to our testing instruments.

## Data Collection Results

Student testing data for chapter and final course exams were collected from two faculty members in the department. One faculty member provided data from SP 07, FA 07, SP 08 and FA 08 and the other faculty member provided data from FA 08 . Overall, data for 49 students was gathered and analyzed (see attached). Significant findings show:

## Average Final Exam Score (A.F.E.S): <br> Average Chapter Exam Score (A.C.E.S):

77.8\% (350/450 points)

51\% (51/100 points)
While it seems that the A.F.E.S is within acceptable parameters, the A.C.E.S is failing and indicates an area of concern. There could be numerous reasons for the low A.C.E.S score such as lack of student preparation, practice exams not correlating to chapter exams, modality of instruction, the testing instrument itself, etc.

The department has shared concern over the testing instruments in the past, in the nature of the way they are created through publisher provided test banks and test generators. An additional area of conern is the large number of arbitrary and irrelevant questions posed to students that do not relate to course outcomes nor to the body of knowledge that department members expect students to have upon completion of the course to be used in industry, future course work, or personal use. For these reasons, the department has chosen to look carefully at the testing instruments currently in use and see if they are the cause for low student performance or if other factors, as mentioned above, are involved.

## Conclusion

The department has decided to revise the required student assignments and also adjust the points distribution for these assignments. The goal is to improve student learning by making the workload more manageable by the student and to get them focused on core topics that matter and relate to course outcomes. Additionally, we hope this increases student retention by creating a learning experience that supports students in their efforts to stick with the course to successful completion.

Based upon the data collected and analyzed, we plan on making the following changes to take affect for the Fall 2009 semester in an effort to improve student learning:

## Testing

Current: Students currently take a pre-test during their first class session and also take the exact same exam at the end of the course that serves both as their post-test and their final exam. During the course students take 12 chapter exams after reading course material and completing assignments.

Fall 2009: Students will take a pre-test/post-test as before, but the post-test will no longer count as a final exam. The 12 chapter exams will be revised to 4 exams (one exam after covering three chapters in the course's required text) of which will be created without the assistance of test generators, but instead be created by faculty members within the department. Questions may still come from publisher provided test banks, however the individual questions will be hand selected by instructors based on areas related to course outcomes, industry expectations, future course work, and general usefulness to the student.

## Written Requirements

Current: Students write a total of 24 article summaries (two per chapter) throughout the course.
Fall 2009: Article summaries will be eliminated and replaced with a final project. The student will be provided with various options as far as the type of final project involved. Currently, options being considered are a research project/paper, research project/presentation, or participation in online threaded discussions relating to interesting articles in computer science in which students will provide their comments and responses to a prompt from the instructor and interaction with classmates.

## Points Distribution

Current: The current points distribution is very confusing to students (and some faculty members). There is a large number of points possible and many, many different assignments that students must keep track of in order to do well in the course. There are many instances where students fail to
complete assignments before completing the chapter test.
Fall 2009: Points distribution will be revised to a total of 1000 possible points. There will be consolidation of some assignments and elimination of others to make the learning experience more enjoyable and easier to manage by reducing some of the complexity of assignment tracking.

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## VI. ASSESSMENT OF STUDENT ACADEMIC ACHIEVEMENT REPORT (Due Date March 21, 2008)

## DEPARTMENT:_Community Education

MISSION: (Circle One) General Education, Transfer Preparation, Employability, Developmental Education, Customized Education (Economic Development), or Personal Interest.

There are currently five levels of assessment that are possible within each department. These levels are related to development of the department assessment data gathering techniques and use of the information to fine-tune courses as necessary.

Department Activity Level Checklist

| Activity Level: | Departmental progress: |
| :---: | :---: |
| Level I: The department assessment processes have been detailed and developed for use by faculty. | Yes X No $\qquad$ Attach copies of instruments used, instructions for students, time frames for activities, etc. |
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| Level V: Data has been used to improve the assessment process. | Yes $\qquad$ No $\qquad$ Attach highlights related to improvements and/or streamlining the assessment process. |

Assessment Chair's Signature

Dean's Signature

4/7/08
Date

## Date

## ASSESSMENT OF STUDENT ACADEMIC ACHIEVEMENT REPORT <br> April 7, 2008

The Community Education Department has chosen to review Strip Quilt Classes, they are very popular and class offering are increasing at many locations.

## INTRODUCTION

Lucille Webb is one of our quilting teachers. In the summer of 2002, at the Silver Creek Campus she put held her quilt show; she invited all of her students to display their quilts. There were 25 quilts made by student. The majority of the students weren't comfortable displaying their work. In order to have a successful show, Lucille displayed $100+$ quilts of her own. This past July, Lucille held her $16^{\text {th }}$ annual quilt show, there were 130 student quilts with students from St. Johns, Heber, Show Low, Joseph City, Snowflake, Show Low and Taylor.

| Year of Quilt Show | 2002 | 2007 |
| :--- | :--- | :--- |
| Student 's Quilts Displayed | 25 | 130 |
| Increase | $\mathbf{4 2 0 \%}$ |  |

## DATA COLLECTIONS RESULTS

At the first quilt show held at NPC, there were only 25 quilts made by students displayed there. Last years show the students entered 130 quilts and increase of $420 \%$.

## CONCLUSION

The student's skills and confidence have dramatically improved, as well as enrollment in the classes. Along with giving the students a chance to display their talents at the quilt show, Lucille donates the proceeds from the door to NPC for scholarships. Another of Lucille's students from the Painted Desert Campus entered a quilt in the state fair and won first place in Hand Application.

## ASSESSMENT OF STUDENT ACADEMIC ACHIEVEMENT REPORT 2009

## DEPARTMENT: COSMETOLOGY

MISSION: (Circle One) General Education, Transfer Preparation, Employability, Developmental Education, Customized Education (Economic Development), or Personal Interest.

There are currently five levels of assessment that are possible within each department. These levels are related to development of the department assessment data gathering techniques and use of the information to fine-tune courses as necessary.

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| Level V: Data has been used to improve the assessment process. | Yes $\qquad$ No $\qquad$ <br> Attach highlights related to improvements and/or streamlining the assessment process. |

Assessment Chair's Signature

Dean's Signature

## Date

## Date

Wednesday, March 04, 2009
Assessment / Cosmetology Program

The Professional Credential Services (PCS) have been conducting the state exam for licensing for our graduates for the past year now. They have issued the State's "School Strength and Weakness Summary" (*Please see Professional Credential Services reports for all 3 schools, attached).

After careful review of this report, it is obvious that our graduates exceed the Arizona state averages in almost all areas except in the Set up and Client Protection segment. Even though the scores are comparable to the other schools we strive for the best. Therefore, we have chosen to focus our program assessment in this area.

We believe the Safety and Sanitation sections of this exam are critical for success in this industry. The practical training of all of our students has been reviewed. Our investigation into why our students' scores were average in this segment revealed that we had similar problems during our school board exam with the same group of students. (Please see Safety and Sanitation Assessment, *attached) With all of our instructors input, and extra training sessions with the NIC national examiner, we are very pleased to report on what we have changed and improved for our students training.

Our solutions:

1. Implement higher standards for safety and sanitation in the classroom at the freshman level. See \#15 on p. 2 (We have decided to test the students on the actual disinfection procedures in addition to the procedures included with other services on this form)
2. Repeat Instructor demonstrations of all disinfecting procedures twice each month. We have modified the student's monthly sign off sheets to specifically include this. (See p.3)
3. Type and post disinfecting procedures at each station and shampoo bowls (we already have wet disinfectant and blood spill procedures posted). See p. 4 and 5
4. Provide disinfectant and hand sanitizer at all stations receiving clients and at all shampoo bowls.
5. We modified our client survey to give the clients the opportunity to observe and comment on our student's disinfection procedures. This allows us to ensure that these Infection control procedures are being implemented with consistency (see p. 5)
6. We have advised the college to furnish antibacterial soap in all dispensers and this has already been done at both campuses.

We have attached the forms we have improved and implemented into our sixteen hundred hour training for cosmetologists and will review our next group of graduates to see if we have made any improvements.

## FRESHMEN CLASS 300 HOUR <br> GRADUATION REQUIREMENTS

The following tasks and assignments must be completed FOLLOWING ALL SAFETY AND INFECTION
CONTROL PROCEDURES in the time allowed, observed and signed off by an Instructor as passed. When all are successfully completed and 300 hours have been clocked the student will graduate to the clinic floor and receive their black smock and sophomore kit.

TASK
TIME ALLOWED
INSTRUCTORS INITIALS / DATE

1. Manicure

45 min
2. Pedicure
$45 \min -1$ hour
$\qquad$
3. Roller Set

30 min
4. Comb-out

20 min
5. All Drapes

N/A
6. Shampoo

N/A
7. Board Thermals

20 min
8. 90 Degree Haircut

1 hour
9. $1 / 2$ Head Perm Wrap

45 min
10. Scalp Manipulations

10-15 min
11. Facial Manipulations
$10-15 \mathrm{~min}$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
12. 4 Quadrants N/A Quad 1 Virgin Lightener
Quad 2 Tint Retouch Quad 3 Virgin Relaxer Quad 4 Relaxer Retouch
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
13. Weaving \& Slicing 1 hour $\qquad$
14. Acrylic Nails Blended Tip

20 min 10 min
15. DISINFECTION PROCEDURES

| Station | 1 min |
| :--- | :--- |
| Shampoo bowl | 1 min |
| Implements | 15 min |

1 Hour
16. 300 Hour Written Exam
17. Procedure Cards(1 for every demo and every product)
18. Style Book 9 pages total ( 3 women, 3 men, and 3 children)
19. Desk and Dispensary
20. Monitors, pink sheet, and 1600 hour sign off sheet

NAME:
MONTH OF:

| WEEK 1 | FULL TIME REPEAT | DATE: | INSTRUCTORS <br> INTIALS: | Disinfection <br> and monitor |
| :---: | :--- | :--- | :--- | :--- |
| Monday | Full Head: Perm Wrap(keep for Wednesday) 0 <br> Degree Cut on Brunette *CEAN STATONS* |  |  |  |
| Tuesday | Full Head of Pincurls: Up-Stem, Back-Stem, <br> Down-Stem, Square-Base, Triangle-Base, Stand- <br> Up/Create a Style |  |  |  |
| Wednesday | BOARD-THERMAL 28 Styles \#24 Press out <br> your Perm Wrap from Monday |  |  |  |
| Thursday | 2 UpDo's 45 Degree Cut on Brunette |  |  |  |
| Friday | 28 Styles \#'s 18 \& 22 *Finger Wave |  |  |  |


| WEEK 2 | FULL TIME REPEAT | DATE: | INSTRUCTORS <br> INTIALS: | Disinfection <br> and monitor |
| :---: | :--- | :--- | :--- | :--- |
| Monday | 28 Styles \#'s 10 \& 3 <br> 2 Nails (on finger or partner) |  |  |  |
| Tuesday | Spiral Perm Wrap-Full Head <br> (Set) 28 Styles \#13 |  |  |  |
| Wednesday | Spool Perm Wrap-Full Head <br> (comb out) 28 Styles \#13 |  |  |  |
| Thursday | Tincture Perm Wrap-Full Head <br> (set) 28 Styles \#17 |  |  |  |
| Friday | Comb Out \#17 of the 28 Styles <br> Set \#16 <br> Pedicure on Partner |  |  |  |


| WEEK 3 | FULL TIME REPEAT | DATE: | INSTRUCTORS <br> INTIALS: | Disinfection <br> and monitor |
| :---: | :--- | :--- | :--- | :--- |
| Monday | (set) 28 Styles \#'s 4 \& 28 <br> Facial Manipulation <br> *CLEAN STATIONS* |  |  |  |
| Tuesday | (comb out) 28 Styles 's 4 \& 28 <br> Full Head Perrm Wrap/Short Hair |  |  |  |
| Wednesday | 28 Styles \#5/State Board Thermal (create a style <br> of your choice) Manicure on Partner |  |  |  |
| Thursday | (set) 28 Styce \#'s 6 \& 19 <br> Timed Scalp Manipulations |  |  |  |
| Friday | (timed comb out) 28 Styles <br> \#'s 6 \& 19/ Timed Mohawk Perm Wrap |  |  |  |


| WEEK 4 | FULL TIME REPEAT | DATE: | INSTRUCTORS <br> INTIALS: | Disinfection <br> and monitor |
| :---: | :--- | :--- | :--- | :--- |
| Monday | Timed Thermals (REPEAT) <br> Full Head Perm Wrap |  |  |  |
| Tuesday | Timed Thermals <br> Timed Mohawk (REPEAT) |  |  |  |
| Wednesday | Four Quadrants (1)Mock (2)Tint (3)Bleach <br> (4)Relaxer |  |  |  |
| Thursday |  <br> Bleach *Relaxer |  |  |  |
| Friday | BOARD REVIEW TEST <br> Instructors Choice Assignment |  |  |  |

PERSONAL SERVICES
DATE
INSTRUCTORS INITIALS

Station Disinfection Procedure

## BEFORE SEATING CLIENT

1. Disinfect entire chair. Seat client
2. Disinfect counter top. Set up tools/materials
3. Clean up as you go(rods, bowls, hair, etc.)

AFTER CLIENT LEAVES

1. Clean up all tools/materials
2. Discard all used materials in trash
3. Disinfect entire chair \& countertop
4. Windex mirror
5. Clean \& disinfect all implements used
6. Store in Dry Sanitizer

## Station Disinfection Procedure BEFORE SEATING CLIENT

1. Disinfect entire chair. Seat client
2. Disinfect counter top. Set up tools/materials
3. Clean up as you go(rods, bowls, hair, etc.)

AFTER CLIENT LEAVES

1. Clean up all tools/materials
2. Discard all used materials in trash
3. Disinfect entire chair \& countertop
4. Windex mirror
5. Clean \& disinfect all implements used
6. Store in Dry Sanitizer

## Station Disinfection Procedure

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5. Clean \& disinfect all implements used
6. Store in Dry Sanitizer

## Station Disinfection Procedure

 BEFORE SEATING CLIENT1. Disinfect entire chair. Seat client
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3. Clean up as you go(rods, bowls, hair, etc.)

AFTER CLIENT LEAVES

1. Clean up all tools/materials
2. Discard all used materials in trash
3. Disinfect entire chair \& countertop
4. Windex mirror
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6. Store in Dry Sanitizer

Station Disinfection Procedure
BEFORE SEATING CLIENT

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2. Disinfect counter top. Set up tools/materials
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2. Discard all used materials in trash
3. Disinfect entire chair $\&$ countertop
4. Windex mirror
5. Clean \& disinfect all implements used
6. Store in Dry Sanitizer

## Station Disinfection Procedure <br> BEFORE SEATING CLIENT

1. Disinfect entire chair. Seat client
2. Disinfect counter top. Set up tools/materials
3. Clean up as you go(rods, bowls, hair, etc.)

AFTER CLIENT LEAVES

1. Clean up all tools/materials
2. Discard all used materials in trash
3. Disinfect entire chair \& countertop
4. Windex mirror
5. Clean \& disinfect all implements used
6. Store in Dry Sanitizer

## SHAMPOO BOWL DISINFECTION PROCEDURE

# 1. Wipe entire chair and shampoo bowl (inside and out) with disinfectant wipe. <br> 2. Seat client, make sure cape is behind chair back. <br> 3. When finished - rinse, clean and dry bowl. <br> 4. Remove hair or other items from drain <br> 5. Wipe entire chair and shampoo bowl (inside and out) with disinfectant wipe. 

## Client Survey

Student Name
Service Received $\qquad$

## Date

 Time $\qquad$1. Did you receive professional, friendly, and courteous service from your student?
2. Did you observe your student disinfect AND sanitize throughout your service?
3. Was an Instructor sought out prior to your service for instructions, and if so, were they patient and clear when giving directions?
4. Was an Instructor sought out to check your service before you left?
5. Were you given careful explanation about your service and how to maintain it?
6. Did you find your overall experience pleasant, friendly, and professional?

Please make us aware of any complaints or praise

Please let us know if there is anything we can do to provide better services in the future.

AZ Cosmetology
School Strength and Weakness Summary
All Administrations
NORTHLAND PIONEER COLLEGE - C 29 [ShOW LOW] 01/01/2008-01/31/2009


AZ Cosmetology
School Strength and Weakness Summary
All Administrations
NORTHLAND PIONEER COLLEGE - C 30 [Winslow] 01/01/2008-01/31/2009



## VI. ASSESSMENT OF STUDENT ACADEMIC ACHIEVEMENT REPORT 2009

## DEPARTMENT:_Early Childhood Development

MISSION: (Circle One) General Education, Transfer Preparation, Employability, Developmental Education, Customized Education (Economic Development), or Personal Interest.

There are currently five levels of assessment that are possible within each department. These levels are related to development of the department assessment data gathering techniques and use of the information to fine-tune courses as necessary.

## Department Activity Level Checklist




## AS ASSESSMENT OF STUDENT ACADEMIC ACHIEVEMENT REPORT

## Level I:

The ECD Program has assessment processes in place, which have been developed/approved by the ECD Advisory Council and ECD Faculty. The ECD Advisory Council is comprised of 15 representatives from a variety of early childhood programs within NPC's service area. Many of the Advisory Council representatives also serve as adjunct early childhood faculty in addition to their administrative responsibilities in early childhood settings.

When ECD, EDU Assistant and HUS Residential Child and Youth Care students enroll in the capstone course, ECD 175, for 1.0 credit, they are assigned an additional activity: to submit their own personal ECD Philosophy of early childhood education/development. Their essay must be at least 500 words. (See attached student instruction sheet). This sheet is given to the student inside the \#175 module. A specific note re: this additional assignment has been pasted inside the module at the end of the other course objectives.

The philosophy statements arrive at various times during/after a semester due to the open entry/closed exit nature of the programs. Students are asked to not identify themselves or their employer in their philosophy statement.

The Student Outcomes Checklist of twenty-four indicators is felt to be relevant and promotes "best practice" in the early childhood and related fields. This checklist of twenty four criteria is used during ECD Advisory Council meetings to score and rank all individual Early Childhood Philosophy Statements received during a semester. Each philosophy statement is read and scored by two different readers. The checklist was initially developed and later modified by the ECD Advisory Council members since measuring outcomes was first implemented at NPC. During the Feb. 12, 2008 Advisory Council meeting the checklist wording was again revised. The Council also in the beginning of the development of the checklist decided that meeting $50 \%$ of the criteria indicated success.

## Level II:

The data collected is analyzed and discussed at the time of the scoring or at the next regularly scheduled ECD meeting. Meeting minutes are kept on file with the recorded results included. See attached checklist.

## Level III:

After each scoring of the philosophy statements or at the next regularly scheduled ECD Advisory Council meeting, the data is analyzed with recommendations noted in Advisory council minutes which are kept on file in the ECD Program Chair's office with copies submitted to the Dean.

The ECD Advisory Council has reviewed the 24 criteria checklist and has opted several times not to change it or have made minimal revisions, except for wording of some of the criteria. The instructions to the student and to the ECD Faculty have changed several times, with the last change being the inclusion of the 13 CDA Functional areas listed on the back of the instruction sheet. The Faculty have also been notified at ECD Advisors' meetings to discourage students from enrolling in ECD 175 at the
beginning of their ECD studies. Faculty were asked for suggestions for ways to improve the $50 \%$ and $75 \%$ ratings. Between the ratings of the 2008 and 2009 philosophies there has been a slight increase:

| Date of <br> evaluation | Number <br> statements <br> received/evaluated | Number meeting 50\%** <br> criteria | Number meeting 75\% <br> criteria |
| :--- | :---: | :---: | :---: |
| Feb. 12, <br> 2008 | 25 | $84 \%$ | $16 \%$ |


| Date of <br> evaluation | Number <br> statements <br> received/evaluated | Number meeting 50\%** <br> criteria | Number meeting 75\% <br> criteria |
| :--- | :---: | :---: | :---: |
| Feb. 3, <br> 2009 | 30 | $87 \%$ | $17 \%$ |

## Level IV:

Although there has been discussion about the curriculum following the analysis of the scoring, there have been no significant changes made to the CDA/ECD curriculum based on assessment results. Deletions of ECD modules no longer thought to be effective and current were approved by ASCC on March 19, 2004. Also revised was the deleting of ECD 107 Teaching Aids and the addition of ECD 216 Transitions to the core requirements. Additional courses have been developed and added to the course bank as a result of participation in the Arizona Systems Ready/Child Ready Project, a research collaborative project with ASU and 5 other community colleges. (ECD 238, 239, 240). Although there were plans for implementation of a teaching practicum course, that did not materialize due to the fact that the State Dept. of Education certification unit or NAU would accept the course for transfer/certification. However, a new basic training course for 3.0 credits will be considered at the next ECD Advisory council meeting in April.

## Level V:

Review of the data has led to changes in the student information sheet, instructions provided to the students and to the faculty who advise them as well as to the evaluation criteria forms. These changes have been discussed previous in this report. Minutes of all Advisory council meetings are kept in the ECD Program Chair's office which document the improvements.

## Student Outcomes Evaluation Results

Feb. 3, 2009
30 philosophy statements rated

| Score/24 | \# received | Percentage | Score | \# received | Percentage |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 20 | 1 | $83 \%$ | 13 | 6 | $54 \%$ |
| 19 | 2 | $79 \%$ | 12 | 9 | $50 \%$ |
| 18 | 2 | $75 \%$ | 11 | 1 | $46 \%$ |
| 17 | 1 | $71 \%$ | 10 | 1 | $42 \%$ |
| 16 | 3 | $67 \%$ | 7 | 1 | $29 \%$ |
| 15 | 1 | $63 \%$ | 5 | 1 | $21 \%$ |
| 14 | 1 | $58 \%$ |  | TOTAL NUMBER 30 |  |


| Date of <br> evaluation | Number <br> statements <br> received/evaluated | Number meeting 50\% ** <br> criteria | Number meeting <br> $75 \%$ criteria |
| :--- | :---: | :---: | :---: |
| Feb. 3, <br> 2009 | 30 | $87 \%$ | $17 \%$ |

## STUDENT OUTCOMES CHECK LIST EARLY CHILDHOOD DEVELOPMENT PROGRAM DATE

|  |  | Evaluation criteria |
| :--- | :--- | :--- |
|  |  | Provides safe/secure/healthy-learning environment. |
|  |  | Facilitates nutritional concepts. |
|  |  | Implements open-door policy |
|  |  | Observes/records child behavior |
|  |  | Enhances development of gross/fine motor skills |
|  |  | Fosters communicationg play |
|  |  | Encourages making choices |
|  |  | Promotes age appropriate cognitive skills, including problem solving |
|  |  | Encourages creativity. |
|  |  | Encourages cultural acceptance and diversity |
|  |  | Nurtures socialization/emotional cooperation/respect |
|  |  | Implements development of self-help skills |
|  |  | Remotes positive self-esteem through successful experiences |
|  |  | Meets individual rights of children/families |
|  |  | Encourages parent involvement and provides educational opportunities |
|  |  | Develops and promotes family and community partnerships. |
|  |  | Facilitates transitional activities for children and parents. |
|  |  | Effective manager of time, lessons and environment |
|  |  | Uses developmentally appropriate techniques |
|  |  | Demonstrates positive attitudes and professionalism |
|  |  |  |
|  |  |  |

Score: $/ 24$ Percentage:
Comments:

# ASSESSMENT OF STUDENT ACADEMIC ACHIEVEMENT REPORT 

DEPARTMENT: Education

MISSION: (Circle One) General Education, Transfer Preparatign, Employability, Developmental Education, Customized Education (Economic Development), or Personal Interest.

There are currently five levels of assessment that are possible within each department. These levels are related to development of the department assessment data gathering techniques and use of the information to fine-tune courses as necessary.

Department Activity Level Checklist

| Activity Level: | Departmental Progress: |
| :---: | :---: |
| Level I: The department assessment processes have been detailed and developed for use by faculty. | Yes $\quad$ X No $\qquad$ <br> Attach copies of instruments used, instructions for students, time frames for activities, etc. |
| Level II: Data collection has been implemented. | Yes x $\qquad$ No $\qquad$ <br> Attach copies of grading rubrics, analysis of test questions and overall findings. |
| Level III: Faculty, instructional leaders, and deans have analyzed the data. | Yes X No $\qquad$ <br> Attach copies of conclusions reached by the assessment team. |
| Level IV: Faculty, instructional leaders, and deans have used the data to improve student academic achievement. | $\text { Yes } \underline{x} \quad \text { No }$ $\qquad$ <br> Attach highlights related to curriculum and/or assessment changes which were implemented through this process such as revision of study guides, exams, changes in grading rubrics. |
| Level V: Data has been used to improve the assessment process. | Yes X $\qquad$ No $\qquad$ <br> Attach highlights related to improvements and/or streamlining the assessment process. |

Dick Heimann
Assessment Chair's Signature Date

# Assessment Of Student Academic Achievement Education Department Division of Arts and Sciences <br> Spring 2009 

Northland Pioneer College's Education Department focuses on preparing students with an Associates of Arts in Elementary Education to enter into the career of the K-8 classroom as a certified teacher.

We see our mission as:

- Defining an academic pathway to teacher certification
- Delivering a carefully crafted curriculum to provide the required courses for admission into an initial teacher certification program at a publicly funded state university.
- Providing solid foundations of education to enable students to succeed.
- Maintaining high academic standards and develop the ability of future teachers to be confident, effective professionals in today's diverse classrooms.
- Developing strong educators who will transform the lives of their future students.
- Providing guidance and individualized attention to maximize the learning experience at NPC

The Education Department at Northland Pioneer College will assess student academic achievement by:

1. Gathering meaningful data,
2. Analyzing the data, and
3. Modifying the curricula and instructional methods when the data indicates a need for restructuring instruction.

## Gathering Meaningful Data

During this assessment cycle (2008-2009) the education department measured student achievement by administering a course embedded authentic assessments process that examines the students understanding of the content areas based on the 10 standards developed by the Interstate New Teacher Assessment and Support Consortium. INTASC is a consortium of state education agencies, higher education institutions, and national educational organizations dedicated to the reform of the education, licensing, and on-going professional development of teachers. Its work is guided by one basic premise: An effective teacher must be able to integrate content knowledge with pedagogical understanding to assure that all students learn and perform at high levels. The ten INTASC standards are:

1. Content Pedagogy. The teacher understands the central concepts, tools of inquiry, and structures of the discipline he or she teaches and can create learning experiences that make these aspects of subject matter meaningful for students.
2. Student Development. The teacher understands how children learn and develop, and can provide learning opportunities that support a child's intellectual, social, and personal development.
3. Diverse Learners. The teacher understands how students differ in their approaches to learning and creates instructional opportunities that are adapted to diverse learners.
4. Multiple Instructional Strategies. The teacher understands and uses a variety of instructional strategies to encourage student development of critical thinking, problemsolving, and performance skills.
5. Motivations and Management. The teacher uses an understanding of individual and group motivation and behavior to create a learning environment that encourages positive social interaction, active engagement in learning, and self-motivation.
6. Communications and Technology. The teacher uses knowledge of effective verbal, nonverbal, and media communication techniques to foster active inquiry, collaboration, and supportive interaction in the classroom.
7. Planning. The teacher plans instruction based upon knowledge of subject matter, students, the community, and curriculum goals.
8. Assessment. The teacher understands and uses formal and informal assessment strategies to evaluate and ensure the continuous intellectual, social, and physical development of the learner.
9. Reflective Practice: Professional Growth. The teacher is a reflective practitioner who continually evaluates the effects of his or her choices and actions on others (students, parents, and other professionals in the learning community) and who actively seeks out opportunities to grow professionally.
10. Schools and Community Involvement. The teacher fosters relationships with school colleagues, parents, and agencies in the larger community to support students' learning and well-being.

While mastery of the 10 standards would be ideal, the Education Department at NPC recognizes that EDU 200, Introduction to Education is a survey course and first in a series of courses that will ultimately lead to full mastery of the 10 standards that will enable the student to successfully pass the Arizona Educator Proficiency Examination (AEPE). Eligibility to sit for this exam requires a BA degree and an endorsement form the institution granting the BA degree.

## The Authentic Assessment Process

Using the course outcomes as defined by the course description (3035) for the criterion for assessment, faculty grades students in the 10 dimensions of the INTASC standards throughout their course assignments in the EDU200 class. The authentic assessment process has been chosen based on the concern that an emphasis on objective test (multiple choice, true/false, matching) fails to measure higher order thinking skills and did not focus on the critical thinking skills necessary for effective teachers. Assignments included in the authentic assessment process include:

- An essay on "Why I Want To Be A Teacher" (standards 1,2,3,9,10)

2 article reviews from scholarly journals (reading list is posted at http://www.npc.edu/node/620 (standards 2,3,4,5,6).

- An essay describing their "educational philosophy" (standards 8,9,10)
- An observation report from observing a public school classroom (standards 2,3,4,5,7,10)
- Scores from objective and essay assessments from the content of the text book (standards 1-10)
- Participation in class dialogue (standards 1-10)

These components comprise the scope of the authentic assessment process and are summarized by the final grade posted to the student's transcript, representing their achievement in EDU200. Comparisons by semester are then interpreted as indicators of the department's effectiveness in facilitating student success. These "grades" are displayed in the following data tables.

## DATA

|  | Student Outcomes |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Semester | section / time / mode | N <br> ENROLLED | A | B | C | D | F | W |
| S-08 | Audio M-8:00am | 8 | 4 |  |  |  | 1 | 3 |
| S-08 | Audio T- 2:00pm | 8 | 7 |  |  |  |  | 1 |
| S-08 | Audio R-6:30pm | 16 | 7 | 3 |  | 1 |  | 5 |
| F-08 | Audio M-6:00pm | 16 | 11 | 1 | 1 |  |  | 3 |
| F-08 | 8:00am WMC | 7 | 6 |  |  |  | 1 |  |
| F-08 | Audio W-11:00am | 9 | 6 |  |  |  | 2 | 1 |
| F-08 | 8:00am PDC | 2 | 2 |  |  |  |  |  |
| F-08 | $\begin{aligned} & \text { Video } 2 \text { R - } \\ & \text { 6:30pm } \end{aligned}$ | 13 | 11 |  |  |  |  | 2 |
|  | All sections $\mathrm{N}=$ | 79 | 54 | 4 | 1 | 1 | 4 | 15 |
|  |  | Percentage $=$ | 68\% | 5\% | 1\% | 1\% | 5\% | 19\% |

## Overall Course Assignments

Grading is based on:

- Class participation, text reading and reflection questions - $15 \times 10$ points $=150$
- Essay on why you want to be a teacher 50
- Article review and presentation (2 @ 50 points) 100
- Classroom observation 50
- Mid term assessment 100
- Philosophy essay 50
- Final assessment (comprehensive) 100

| $90-100 \%$ | $=\mathrm{A}$ |
| :---: | :---: |
| $80-89 \%$ | $=\mathrm{B}$ |
| $70-79 \%$ | $=\mathrm{C}$ |
| $60-69 \%$ | $=\mathrm{D}$ |
| $<60 \%$ | $=$ |

Each component that leads to a letter grade has a well defined rubric, and is embedded in the assignment.

## Trends

- Assessment results, as indicated by grades, follow a skewed toward the right distribution curve as expected. The authentic assessment process is designed to maximize grade accomplishment by evaluating multiple indicators of achievement.
- The data indicates that "motivated students" (those who complete all the assignments) are moving toward achieving mastery of the standards.
- $19 \%$ of the enrolled students received a "W". This is probably a result of students not completing all assignments and requesting a " W ".
- 5\% received a grade of "F", probably a result of not completing all required assignments.


## Conclusions and Recommendations

1. Faculty should continue to provide guidance and individual attention to student accomplishment /achievement and success, focusing on the concept of encouragement to help each student develop reflective thinking skills.
2. Continue to maintain high academic standards
3. Continue with the authentic assessment process, and not rely on standardized multiple choice assessments to determine achievement.
4. Use an authentic assessment process that models the best practices for future teachers.

## Sample objective test questions reflecting the content of the text book

 Principal 1. Content PedagogyA student listens to an editorial response on the TV news in which the speaker charges that a city politician is acting like Macbeth. The student immediately knows by the reference to Macbeth that the city politician is trying to usurp power, according to the speaker. The student is able to make that connection because
a. of her critical thinking skills.
b. of her powers of memorization.
c. she is culturally literate.
d. she has had courses in British history.

Current trends in math instruction are likely to lead to graduates who are able to
a. add long columns of numbers accurately in their heads.
b. explain math theories and concepts with insight and ease.
c. use mathematical reasoning to solve real problems that confront them.
d. find exact answers speedily by referring to texts and tables.

## Principal 2 Student Development

A student completing a project on bird identification knows that insect-eating birds have narrow, pointed bills. One day, her mother and she look out the window and see a bird they don't recognize with a narrow bill. The mother exclaims, "What an unusual bird. I've never seen a bird like that all through this snowy winter." The daughter replies, "You wouldn't. That bird must migrate to warmer climates during the winter." Which of the following is the girl using?
a Metaphorical thinking
b Inductive reasoning
c. Correctional thinking
d. Deductive reasoning

According to William Glasser's choice theory, why would a person feel discontented or be unsatisfied with his or her life?
a. He or she lacks the power to control people and events in his or her life.
b. He or she has unmet basic needs.
c. He or she does not yet know how to attain personal empowerment.
d. He or she has unmet basic needs and does not have the capacity to attain personal empowerment.

## Principal 3 Diverse Learners

What is the purpose of multiculturalism in schools?
a To help assimilate students' cultures into the American "melting pot"
b. To reduce prejudice, foster tolerance, and improve the academic achievement of minority students
c. To support students in the maintenance and preservation of their own cultures
d. To assimilate students into the "melting pot" of the United States as well as to foster students' respect for the existence of various cultures
The "Comer Model" of schooling emphasizes the social context of teaching and learning because of the belief that
a. learning can only take place in a positive environment where teachers, students, administrators, and parents work together.
b. students are primarily interested in socializing with their friends, not learning.
c. the causes of problems within a school need to be identified and the situation or the personnel employed need to be changed.
d. social differences create problems in schools.

## Principal 4 Multiple Instructional Strategies

In a constructivist approach to learning, learners
a. actively make their own meaning from new knowledge.
b. learn new facts and knowledge without questioning them.
c. question all new information.
d. believe that there are no universal truths; all truths are relative

A theory-in-use is best described as
a. a hypothesis designed to bring facts and concepts into systematic connection.
b. an explanation used to justify action.
c. a common-sense idea proven throughout repeated experiences.
d. a practical solution to a theoretical problem.

## Principal 5 Motivations and Management

Brian, frustrated by his math worksheet, tears the paper in half. Which of the teacher's following responses would best characterize what psychologist Carl Rogers calls "empathic understanding"?
a. "Joanna, why don't you sit with Brian and help him with his math worksheet? He needs your help."
b. "Brian, tearing your math worksheet is not a constructive way to solve your problems."
c. "You were working on those problems for some time without getting many done. Why don't you show me where you got stuck?"
d. "Math was always my worst subject, too. Finally, I just realized I was better at other things."

Which of the following would be most consistent with recent cognitive research on teaching and learning?
a. Ask students to talk about how they complete a task and structure cooperative learning experiences for them.
b. Establish high expectations for all students and structure frequent competitive activities for all them.
c. Arrange for students to have cognitive apprenticeships and teach students mnemonic devices to help improve their memory.
d. Observe students as they work through problems and prevent students from attempting problems that are beyond their ability.

Principal 6 Communications and Technology
One problem with using computers in instruction is that
a. many teachers focus their activities on learning about computers rather than using computers to learn.
b. teachers must move from whole-class instruction toward smaller group projects.
c. teachers must view themselves as coaches or facilitators.
d. classrooms evolve into cooperative rather than competitive social structures.

In a technology-assisted classroom, the role of the teacher
a. is expanded and involves more higher-level evaluation of performance and more coaching of student learning.
b. changes minimally. The teacher will still be the dispenser of information, directing the students' learning.
c. becomes obsolete. The students can learn better on their own with the technology available.
d. is reduced to technology maintenance. The teacher ensures that the hardware is functional.

## Principal 7 Planning

Lois and Charlotte are considered successful teachers. Charlotte revises her units each year, working to improve them, whereas Lois rarely teaches the same unit twice. Lois is able to cover much material with her class by adhering to lesson plans, whereas Charlotte will alter her lesson plan if she thinks it is necessary. Which teacher demonstrates the behavior of an effective teacher?
a. Charlotte, because she will modify her lessons if she thinks it's necessary.
b. Lois, because she is able to teach her students a large amount of material by adhering to her plans.
c. Lois, because she never teaches the same unit twice.
d. Both teachers are equally likely to be effective.

According to research, what typically happens when teachers increase their waittime when questioning students?
a. The momentum of the class lesson slows down, and advanced students lose their concentration.
b The teachers' questions change from being primarily recall questions to questions that require higher-order thinking.
c. The students provide lengthier responses without being asked.
d. The students' attitude about the subject improves, and they are more willing to follow the teachers' lead.

## Principal 8 Assessment

Authentic assessment grew out of a concern that
a. student performance was declining on standardized tests.
b. the emphasis on standardized test scores caused a narrow emphasis of lower-order thinking skills.
c. multiple-choice tests were too difficult for the majority of students.
d. students were focusing on critical-thinking skills and not performing well on competency tests.

Portfolio assessment allows the teacher to determine a student's progress toward certain learning goals or standards. Still, concerns about authentic assessment remain, in particular
a. the feasibility of quantifying scores from authentic assessments.
b. the reliability and validity of the assessments from site to site and evaluator to evaluator.
c. the ability of the students to complete the portfolio on time.
d the interest of teachers in authentic assessment.

## Principal 9 Reflective Practice

Which of the following teachers best exemplifies the behavior of a reflective teacher?
a. Keshia reviews her lessons each day after teaching and keeps a teaching journal.
b. Anselm talks frequently to veteran teachers to see how they teach particular topics.
c. Darnell uses commercially prepared instructional materials when he begins a unit.
d. Tina prepares detailed thematic units demonstrating the most recent research on different learning styles.

When teachers choose questions to ask, reflect on the student understanding that the answers demonstrate, and then decide how to adjust their instruction to improve the results, they are making what kinds of decisions?
a. Planning.
b. Managing.
c. Implementing.
d. Evaluating.

## Principal 10 Schools and Community Involvement

It is your first year of teaching. A few days before classes start, a very friendly teacher stops by to welcome you to the school. By the end of the second week of school, she stops by your room regularly, frequently giving you information about other faculty and the administration. What would be the best approach for dealing with this teacher?
a. Try to avoid her in the future. You don't want to get involved with any teacher who is too friendly this early in the year.
b. Encourage her friendship. She's friendly and has taken an interest in you.
c. Be polite but reserve your friendship until you know her and the school system better.
d. Find out more by asking other teachers for their opinion of her.

Why is establishing an appropriate social distance from students difficult for so many new teachers?
a. Many are guided by other teachers' advice rather than following their instincts.
b. Many want to be liked by students, so they become overly friendly.
c. Many suffer from poor self-esteem and seek to build their own esteem by becoming close to students.
d. Many lack interpersonal skills necessary for teaching.

# Sample Essay Exam <br> EDU 200 <br> INTRODUCTION TO EDUCATION MID-TERM 

DIRECTIONS: Choose Five (5) questions to answer. Each question is 10 points. Label you responses to the question number. Please pay attention to the "verbs" in each question and respond in complete sentences, demonstrating your understanding. Do not just copy from the text. Refer to the scoring rubric for clarification. Attach additional paper for your answers, and be sure to put your name on each page.

## Scoring Rubric

| POINTS | DESCRIPTION |
| :--- | :--- |
| 0 | Blank or off topic. |
| 1 | Work is completely incorrect. |
| 2 | Response demonstrates a minimal understanding of the question posed but does not suggest a <br> reasonable approach. Although there is some correct work or concepts, the response contains <br> serious misconceptions, major errors, or serious flaws in reasoning. |
| 5 | Response contains evidence of a conceptual understanding of the question in that a reasonable <br> approach is indicated. However, on the whole the response is not well developed. Examples <br> provided do not illustrate the desired conclusions. |
| 8 | Response demonstrates a clear understanding of the question and provides an acceptable <br> approach. The response is also generally well developed, coherent, and may contain minor <br> weaknesses in the development. Examples may not completely illustrate the desired results. |
| 10 | Response demonstrates a complete understanding of the question, is correct, and the methods of <br> solution are appropriate and fully developed. Responses are logically sound, clearly written, and <br> do not contain significant errors. Examples are well chosen and illustrate the desired conclusions. |

1. List and describe the four areas of competence that need to be developed to become an effective teacher and give examples of each.
2. Explain the differences among the four schools of philosophy with regard to the role of the teacher and the role of the student. Answer these two questions for each philosophy (perennialism, progressivism, essentialism, romanticism): What is the role of the teacher? What is the role of the student? Use examples to illustrate your answers.
3. According to Jacob Kounin, teachers who are effective classroom managers emphasize the prevention of disruptions. Describe and give an example of each of the three skills he identified from studying effective teachers.
4. Pick one of the many current curriculum controversies. Present both sides of the controversy and justify your own personal choice of action.
5. The text presents "4 Purposes of the School" in chapter 2. What is your position regarding the purpose of the school? Why is your position valid? What do you base your opinions on? What might the "critics" say about your position?
What would "teacher" behavior be like in the classroom (give examples). What is the "role" of the student, what will they be asked to do and why? If your position and reasons are not adopted by our society what might happen? Is there a relationship between your position and your Philosophy of Education?
6. Identify and describe the impact of at least three events, philosophies, or movements that have influenced changes in the curriculum over the last 50 years. Give specific examples of the changes in the curriculum. Respond briefly, but specifically, in complete sentences.
7. Identify and explain the attitudes that can foster and those that can impede effective teachers.
8. Teachers used to be noted for having good "disciplinary skills." Now researchers talk about teachers' "classroom management styles." List and describe the skills that are encompassed in the meaning of the term classroom management.
9. Describe and discuss the issues related to at least 4 sources of student diversity.
10. Differentiate, contrast and discuss the models of assimilation and cultural pluralism as they relate to the classroom and curriculum.
11. Discuss Glasser's "Choice" theory and contrast the basic premises with Skinner's "Behaviorism".
12. In relationship to "risk factors", discuss the concept that "correlation is not causation". Give ample examples to support your conclusions.
13. What influences curriculum? Is today's curriculum relevant to today's society? Why or why not. Give examples where appropriate to illustrate your position.

## SAMPLE "WHY I WANT TO BE A TEACHER ESSAY"

Rubric: Essay on what motivates you to want to be a teacher, $500+$ words.
What is important to you in regards to your career? Why do you want to be a teacher? What has influenced this decision? When did you make the decision? Why do you think you will be an effective teacher? Use examples to illustrate your points whenever possible. Clarity, style, grammar and spelling are important for future teachers, so I will grade accordingly.

## Becoming a Teacher

Becoming a teacher was not an idea that occupied my mind growing up. As a youngster, I didn't always do very well in school so I didn't think I was very academically inclined. One might ask then, how I came to be on this journey toward becoming an educator, why I am making this journey, and what I hope to accomplish.

I may not have been a good student but I do remember having a helpful nature. I learned to sew when I was twelve and once I became fairly proficient at it, helping my friends with their sewing projects was a fun way to spend time together. That was probably my first experience at teaching, though I thought it was just "helping". Through the years I have guided many people through the sewing process by exposing them to a variety of techniques from laying out a pattern to sewing in a zipper, whatever was needed to accomplish their goal: the finished product.

My inclination towards helping others created opportunities for involvement at my daughters' school. A favorite was the "Art Masterpiece" program. Parent volunteers go into the classroom and present the print of a "Master" artist. The print and its artistic merits are discussed; some background information on the artist presented; and a project introduced that emulates a technique or style of the master. Great enthusiasm for this program led to presenting in several different grades. I just loved working with the children.

Inspired by the positive comments of teachers and staff, I felt encouraged at the age of 42, to attend college and work for a degree in Elementary Education.

While on this road of higher education, I have observed the different teaching styles of my instructors. Often the question of how effective I will be or whether I will be effective at all crosses my mind. This question does not cause doubt but inspires a desire to do and be my best. Inspired by my daughters' teacher, Mrs. Grandinetti, I have observed first hand from the best, how effective teaching is implemented. One example of this is the presentation of book reports. The children are encouraged to be creative by creating games, masks, puppets, etc. they can use to relate the story. The presenter is expected to be prepared, look at the audience, and speak clearly. While the presentation is being delivered, everyone is expected to be respectful and listen to the presentation. After the presentation, fellow students are encouraged to give positive feed-back and ask questions. Facilitating the discussion, Mrs. Grandinetti leads the students to deeper exploration of the topic and related matters. As questions are asked and additional information comes to light another "Teaching Moment" takes place. This style of giving a book report is an excellent approach to relaying information in a way people can relate to which is essential for better understanding. What a great example!

Why do I want to be a teacher? Because I have had so many wonderful experiences, many of them like this: Relevant information is presented. The facilitator presents a question. A hand is raised, the facial expression, the bright eyes, the answer given, all evidence that the light of comprehension, recognition, even inspiration, is on in the mind. Experiencing that magical teaching moment when a student's mind is opened up to new ideas and information, thus gaining a deeper understanding of his world, is exhilarating.

The privilege of facilitating others in the wonderment of discovery, using knowledge like a key to open doors for other's further enlightenment is the joy of teaching and what I hope to accomplish. Somewhere along the way, I will make a difference.

## SAMPLE CLASSROOM OBSERVATION

## EDU 200 INTRODUCTION TO EDUCATION <br> CLASSROOM OBSERVATION FORM

Visit an education classroom for a minimum of 120 minute observation period (a full day is recommended). Classrooms can be Preschool Programs, Head Start Classrooms, K-8 or 9-12 Classrooms. Use this form to guide your observation of the children and the activities you observe. Record and summarize your observations and then them to turn in using the format on this form. Attach this form as your cover sheet.

Name $\qquad$ Date of Observation $\qquad$
Classroom/Program
Age of Children $\qquad$ Focus of Observation $\qquad$
Time of Day $\qquad$ Length of Observation $\qquad$
A. Briefly describe/sketch the physical layout of the classroom
B. Briefly describe activity/event: (number of children \& teachers, materials, location, what was being done, what children did)
C. Describe style of adult-child interactions: (facilitative/respectful)
D. Describe the child to child interactions: (language use, social interactions)
E. Describe any adaptations observed for special needs students:
F. Overall impression of classroom/program:

I chose to do my observation at the Polacca Headstart Program which is located in Polacca next to the old Polacca Day School. It has been awhile since I have been in my very old school so that is one reason why I chose to do my observation there. I was very curious on how things changed, how the students were $n$ and what they all did. On the outside the school looks pretty small, but there is a lot that goes on in that little ole school.

When I arrived at the school, the children were not there yet, but I decided to go inside anyway. There was not that much that have changed, just rearrangement. When I walked into the class, the first things I saw were the cubbies with the students' pictures in them. Behind the cubbies were the teachers' desks. On the right side was the bathroom and the little sinks. At one corner was a carpet, which is where they spend most of their time learning and playing. Across that is where their toys and books were located. They also had their arts supplies next to the cubbies. In the middle of the room were their little round tables. It was almost the same way as I remember it.

When the bus arrived I was asked to stand at the bottom of the steps so I could catch a student if he/she fell. It was fun and funny at the same time. It was funny because each student gave me a funny look, the look that says, "Who are you?" before they came
down the steps. It was cute as well because they were all shy, but as the day went on they started to warm up to my presence.

There were fifteen students, two teachers, and one parent visitor. Before the students started their lessons they all got the "jitterbugs" out. It looked fun so I participated in all the activities they did.. After the kids settled down, we all sat on the carpet and sang their morning song. They were asked in Hopi who was there and if that student was, he/she had to go wash their hands and have their usual health check. When they were finished with that they would go back to the carpet. While the students were waiting for the others to finish, they were talking amongst themselves or either they were horse playing.

Afterwards the teachers gave them free time. Right when the teacher mentioned that it was free time all the students jumped up and ran to do their own business. It was fun watching the kids play dress up, paint, ask me to read to them, make different things out of their toys, and just watch how the parent and teacher played with them. I noticed that while the students played, the teacher would call them one at a time for a personal evaluation. I was surprised how they cooperated. When their name was called he/she would just stop whatever it was they were doing and go to the teacher. There was no talk back or moaning, just cooperation and proper language. They were nice to each other, to the teachers, parent, and me. After they were all evaluated they were asked to clean up and go back to the carpet for circle time. I was really surprised on how fast they cleaned up and helped their other classmates put away toys even if they were not the ones who were playing them. Circle time is where they learned their shapes, colors, numbers, alphabets, and where they learned Hopi.

When the lessons were done we lined up to go outside for recess. At recess the kids went wild! They were everywhere! The teachers were playing right along with them. They were chasing them that whole time! I felt kind of dizzy watching them. I forgot how much energy they had because when time was up it took awhile for them to settle down. Man I got tired chasing them around the playground! They burnt me out! It not only took them awhile to settle down, but to also to line them up. When they finally did get in line and settle down we went back inside to have lunch.

During lunch some of the children sat nice and ate their food while others did not want to eat and kept trying to get off their seat without the teacher seeing them. Even though, they did not want to eat, they did not bother their classmates. It was cute because after they were through eating they got up, pushed in their seats, took their pates etc. to the dish tray, and washed their hands. Without being asked they went to the carpet to rest. They would find a spot on the carpet, lay there, and wait for the rest of their classmates.

Before the day was over the students did a project for their parents. The project was to cut out a heart, color it, and put a poem in the center of it. That project was finished so fast that before I knew it the children were running around or either already putting on their jackets and backpacks.

Throughout the day I was continuously impressed by the young students. They knew a lot and cooperated with their elders. There hardly any problems and if there was
one of the teachers were there to help. They had patience with all fifteen students. Not once did they give more attention to one student. They were all treated the same and talked to in the same voice. The day was filled with activities, singing, and fun. The classroom observation, to me, went well. It was the most fun experience I have ever had

## Sample Article Review

Rubrics for Analyzing / Reviewing an Article: 50 points
The main purpose of the article is to...(5 points)
The key question(s) the author is addressing ...(5 points)
The most important information in this article is...(5 points)
The main inferences/conclusions in the article are...(5 points)
The key concepts I need to understand in this article are....(5 points)
The main assumptions underlying the authors thinking are...(5 points)
The points of view presented in this article are similar / dissimilar to mine because (10 points)
Mechanics; spelling, grammar, punctuation, etc. (5 points)
Citation (APA style) (5 points)

> "New teachers are expected to assume a full schedule of classes, create their own lesson plans, and develop teaching techniques and classroom management strategies in relative isolation... The result: New teachers must weather a frazzling first year that... [is] a recipe for early burnout" (Edutopia p. 40).

What do first year teachers consider the most important? What do we really need in order to have a successful first year and continue teaching? According to Scott Mandel: English, History, Drama teacher and Author of "The New-Teacher Toolbox: Proven Tips and Strategies for a Great First Year", we need mentors. Mandel believes that today's system does not prepare or offer enough support to new teachers causing many to leave the profession early.

Ever since No Child Left Behind teachers are more concerned with teaching the curriculum that will be on assessment tests to focus on guidance and support for new teachers. While teachers have plenty of in-service trainings and special workshops with subjects that school districts expect you to master, none went into the more mundane yet extremely important subjects such as how to set up your classroom or teaching a five hour subject matter in three hours. During the past 15 years being a mentor in the Los Angeles school district Mendal asked new teachers what their top concerns were: setting up the classrooms and preparing for the first week, covering the required curriculum and not falling behind or losing student interest, grading fairly, dealing with parents, and maintaining personal sanity.

The questions these new teachers asked were fairly simple. Imagine wondering if you need to purchase your classroom school supplies and what if anything, do we put on the class bulletin board or do we give homework the first week and how should I handle discipline problems. Having a mentor to answer these types of questions would be a tremendous relief to a new teacher and also to an overworked principle.

In doing further research I discovered there are currently 23 districts with Master Teacher mentors in Arizona serving 485 new teachers (www.azk12.org). Mentoring programs are being left out of the school's curriculum because of budget cuts. Mendel suggest in the absence of a formal mentoring program teachers should keep a notebook where they can write any questions they may have and schools should at least assign a veteran teacher to answer such questions.

As the school year progresses, new teachers discover they may have fallen behind in teaching the curriculum and start to cut out all the creative ideas they had planned to
use. Mendel suggest combining several teaching goals in one lesson plan or covering some new material in class and having another section be homework that you go over in class the next day. He also gives several good ideas in order to grade fairly, meeting the parents and maintaining personal sanity. All of these discussions that should have been had with your mentor.

I came across and interesting blog by a first year teacher from Arizona. Mary writes "Support for beginning teachers is often uneven and inadequate. Even if well prepared, new teachers often are assigned to the most challenging schools and classes with little supervision and support. Nearly half of all teachers leave the profession in their first five years, so more attention must be paid to providing them with early and adequate support, especially if they are assigned to demanding school environments" (http://a-teachers-first-year.blogspot.com/2006/08/all-teachers-who-want-to-quit-raise.html).

A few concerns that I have come across regarding this issue are new teachers being assigned a mentor that teaches a different grade level or different course material than they currently teach, a mentor with a different teaching philosophy and personality could be a disadvantage to a new teacher as well. New teachers also do not need a veteran teacher that resents having to help and adding to their workload. I feel that by having an experienced teacher that a novice can go to with questions and concerns would help lessen the nervousness and uncertainty a first year teacher can face, giving a new teacher just one new friend when they start out can make the difference in an enjoyable first year and one that could cause burnout. Mendel feels that if we do not do something about this problem, we will continue to lose good teachers. "Mentoring and coaching from veteran colleagues is critical to the successful development of a new teacher. Great induction programs create opportunities for novice teachers to learn from best practices and analyze and reflect on their teaching."(Edutopia 3/16/2008).

## Works Cited

Mandel, Scott. What New Teachers Really Need. Educational Leadership; Mar 2006, Vol. 63 Issue 6, p66-69, 4p

## Sample Philosophy of Education Essay

Rubric: After reading chapter \#9, write a 500+word essay describing your educational philosophy, contrasting your position with those cited in the text. Your essay should reflect your opinion and demonstrate your understanding of the major educational philosophies, contrasting the pros and cons of each philosophy presented in the text and in class dialogue.

Progressive Education is the philosophy that most closely resembles my own personal thoughts and ideas on how a classroom and a school should run. While I am new to education and my philosophy could change, at this moment I believe it is the philosophy that I will be implementing in my classroom.

Progressivism shifts the focus from the needs of the school setting to one that is more student centered. John Dewey who is known as the "Father of Progressive Education" had a vision for school that revolved around the concept of a " good society", where education could be investigations, problem solving, and help foster both personal and community growth. Dewey believed that the school, as a "little democracy," could create a "more lovely society."(Dewey 1902). A Progressive Education philosophy means that every child should be recognized for their own needs and we as educators should be facilitating the students in being able to participate in the community in an effort to achieve a common good. Progressivism cultivates the emotional, artistic, and creative aspects of human development. And while I believe the core of curriculum which would include: math, reading, and science are important and should be emphasized, there needs to be a way to nourish the whole child.

The few things that I do disagree on as far as a progressive philosophy is I feel that grades should be given and positive and negative consequences need to be enforced for students not doing their work. That being said, there are ways to help students "outside the box" that could be useful in helping children succeed in getting positive letter grades. The world is not all rainbows and fairness and children should start learning this in school. While I hope we can prolong their joy with the world as long as possible, we need to be helping the students become good citizens and we can do this by giving them small glimpses of the world.

Romanticism was influenced by Jean Jacques Rousseau and after reading about him I am not impressed at all and I cannot believe someone like him could influence any type of movement at all. Rousseau was said to have been an idle and week character growing up and was constantly falling in love. In his 30 's he fell in love with a seamstress and they proceeded to have 4 children all whom were sent to orphanages (www.webspace.ship.edu/cgboer/romanticism). This philosophy does put children first like progressivism but almost without consequence. Some Romanticism schools have no set curriculum, no formal classes, and no tests. Our Montessori today has a curriculum similar to a Romanticism Philosophy. Students interest guide the curriculum so there is no common set of studies for the whole class.

Perennialism is a teacher centered philosophy that focuses on the "great books" in the hope to create the ability for rational thoughts in the students. Classical thoughts were to be nurtured in the classroom. Perennialists place particular interest on literature and the humanities because these subjects provide the greatest insight into the human mind (Cooper, pg 272). Perennialist believe the same curriculum should be required of all students because the goal of school is to teach the truth, and the truth is the same for everyone, the curriculum must be the same and people are born equal and have the same
opportunities, to give some students a curriculum that is different from that of others is to treat them differently and is discrimination. An advocate for Perennialism, Mortimer Adler believed in providing the same liberal education without electives or vocational classes for all people. He believed education should teach people to think critically, and to use their leisure time well.

Essentialism is a back to basic teacher centered philosophy that centers on reading, writing, and arithmetic and is more "teaching to the test" driven. They believe that there is a common core of knowledge that needs to be transmitted to students in a systematic, disciplined way. The emphasis in this conservative perspective is on intellectual and moral standards that schools should teach. The core of the curriculum is essential knowledge and skills and academic rigor. One difference between this idea and Perennalism is that Essentialist do keep into account that curriculum and ideas can change. William Bagley was one famous Essentialist and Bagley's view was indeed efficiency- that is, social efficiency, or the "development of the socially efficient individual."( www.answers.com/topic/bagley-william-chandler).

As with most ideas in the world, I think an educational philosophy works best if you could add the good parts of each of the four philosophies to create one master one. But I believe most people would have different ideas about which parts of each philosophy are good. If I had the opportunity to create "Barbie's Philosophy": I would make a place for our literature and history as well as the teachings of other cultures, I do believe that the "core" classes are extremely important and should be studied, but not at the expense of the arts. Children should also certainly have a say in how and what they learn but we still need a common set of standards. Our curriculum needs to be flexible and follow along with society now, not 60 years ago. Children and teachers are all different and a philosophy that works well one year, may not the next. But, by realizing that, and being able to bend when needed will make us all more successful educators.

# ASSESSMENT OF STUDENT ACADEMIC ACHIEVEMENT REPORT EMT DEPARTMENT 

Feb 2, 2009

## INTRODUCTION:

Our team chose to evaluate the use of a prerequisite course for our EMT 132 class. We had felt that in the spring of 2008, our students were not performing as well in class or with participation in the National Registry of EMT (NREMT) examination process.

We felt that new language skills of medical terms were daunting. It was also felt that the EMT 132 course did not allow sufficient time to properly teach this new terminology. We decided that in the fall of 2008, we would offer a new course EMT 130 to be given as a co-requisite to those already enrolled in EMT 132 and to provide additional classes for preparation for the spring of 2009 courses.

In the past we have had 4 EMT courses averaging a starting census of 80 students. By approximately the $8^{\text {th }}$ week of class, we had a $25-50 \%$ drop out/ withdrawal rate. The most common reason for this was failure of 3 examinations, students finding it too difficult to comprehend this material and occasionally personal issues.

Attached is a form with the final grade of the number of students who successfully completed the training class in spring and fall of 2008 and their NREMT exam results. These semesters were our comparison groups.
a. In spring of 2008 we had 5 EMT courses - Ganado, Whiteriver, PDC, WMC and Show Low Fire Dept. These courses had a total of 88 students initially enrolled, 41 students successfully completed and 33 have taken the NREMT exam.
b. In the fall of 2008 we had 3 EMT courses - TEP Power Plant, WMC and St John's. These courses had a total of 41 students initially enrolled, 38 successfully completed and 21 have taken the NREMT exam.

## DATA COLLECTION RESULTS:

Generally the students in the fall semester scored higher final grades than those in the spring. The average went from $85.5 \%$ to $89 \%$ between the 2 semesters. What was significant was the change from a 69\% NREMT pass rate on the first attempt to an $86 \%$ pass rate. The national average for EMT's is $71 \%$. So in the spring we were below average and in the fall we were well above average.

## CONCLUSION:

With the significant increase in the percentage of students who pass NREMT exam the $1^{\text {st }}$ time, we believe that this EMT 130 prep class has a definite impact on this score. There is other data that we have discovered between these 2 semesters, that will lead us to our next assessment.

## 2008-2009 English Department Assessment

Background to ENL 101 Assessment: Two years ago the English department changed the assessment tool and grading rubric in order to address various on-going problems with department assessment (see 2006-07 assessment on file), namely low scores on the assessment that showed a discrepancy in pass-fail percentages between the individual English 101 courses and the final department assessment. The modified 2006-07 assessment resulted in a substantial improvement over previous years' assessment scores. In order to determine whether or not the positive results were a trend or a fluke, the department used the same assessment tool and grading rubric for 07-08 as we did the previous year, with similar results. That is, there is a very high percentage of passing grades (see 07-08 results) along with a high percentage of grades in the 80 and 90 percentile. Based on these results members of the English department believe that we had found an effective assessment tool and grading criteria yielding results that correspond with the percentage of students passing the English 101 classes.

This year, in order to further test the results we agreed to expand the percentage for papers assessed from $20 \%$ to $30 \%$. That is, we wanted to see if assessing a larger percentage of papers would show the same results, or at least similar results, and, therefore, demonstrate that the previous year's results were not a fluke either, but consistent with recorded classroom grades.

Assessment Results for English 101 for 2008-2009: The following results are based on the revised Analyses question (prompt) and rubric used for evaluation. Our results are based on a sampling of $30 \%$ of all finals taken in all English 101 classes at NPC for a total of 70 essays; evaluation was based on a standard grading system ( $90-100$ is equivalent to an $A ; 80-89$ a B, etc.). Our results are as follows:

| $90-100=$ | $31.5 \%$ |
| :--- | :--- |
| $80-89=$ | $37 \%$ |
| $70-79=$ | $21.5 \%$ |
| $60-69=$ | $7 \%$ |
| $50-59=$ | $3 \%$ |
| $49-$ | $=0 \%$ |

These percentages not only reflect an overall passing rate of $90 \%$, but also a high percentage of students doing very well scoring in the A and B grade ranges. Also, the passing rate for English 101 is up by $6 \%$; and failing rate for English 101 is down by $6 \%$.

Assessment Conclusion: The 2008-09 ENL 101 assessment scores continue the trend of last year, that is, the scores continue to reflect an improvement over the scores of previous years. Again, we believe this can be attributed to the revised final Analyses question (prompt) and the revised rubric. Again, it is the unanimous opinion of the fulltime English instructors that both the ENL 101 final analyses question and the evaluation rubric more closely reflected the goals and objectives of the course, along with a closer reading of the textbook.

2009-2010 Objectives and Goals: Although the outcomes for the English department final have been successful as scores continue to improve, the English department is going to expand the assessment process to include the research paper along with the final. We are doing this because we believe the research paper more accurately reflects the overall goals and objectives of the department, and, thus, we want to get a more accurate assessment of these goals and objectives. Consequently we will work on a grading criteria and rubric to measure these results.

Background to ENL 102 Assessment: As with English 101, last year the English department changed the assessment tool and grading rubric in order to address various on-going problems with department assessment (see 2006-2007 English Department Assessment on file), namely low scores on the assessment which showed a discrepancy in pass-fail percentages between the individual English 102 courses and the final department assessment. The modified 2006-07 assessment tools resulted in a substantial improvement over previous years' scores. As with English 101, in order to determine whether or not the positive results were a trend or a fluke, the department used the same assessment tool and grading rubric for 07-08 as we did the previous year, with similar results. That is, there is a very high percentage of passing grades (see 07-08 results) along with a high percentage of grades in the 80 and 90 percentile. Based on these results members of the English department believe that we had found an effective assessment tool and grading criteria yielding results that correspond with the percentage of students passing the English 102 classes.

As with English 101, this year in order to further test the results we agreed to expand the percentage for papers assessed from $20 \%$ to $30 \%$. That is, we wanted to see if assessing a larger percentage of papers would show the same results, or at least similar results, and, therefore, demonstrate that the previous year's results were not a fluke either, but consistent with recorded classroom grades.

Assessment Results for English 102 for 2008-2009: The following results are based on the revised Analyses question (prompt) and rubric used for evaluation. Our results are based on a sampling of $30 \%$ of all finals taken in all English 102 classes at NPC for a total of 32 essays*; evaluation was based on a standard grading system ( $90-100$ is equivalent to an A; 80-89 a B, etc.). Our results are as follows:

| $90-100=$ | $25 \%$ |
| :--- | :--- |
| $80-89=$ | $28 \%$ |
| $70-79=$ | $31 \%$ |
| $60-69$ | $=10 \%$ |
| $50-59=$ | $6 \%$ |
| $49-$ | $=0 \%$ |

These percentages reflect an overall passing rate of $84 \%$ and a failing rate of $16 \%$. Thus, the passing rate for English 102 is up by $3 \%$; the failing rate for 102 is down by $3 \%$.
*Note: although we expanded the sampling of papers from 20 to $30 \%$, we evaluated 10 fewer papers than last year, a difference that is accounted for by the fact that we taught fewer English 102 classes in the Fall of '08.

Assessment Conclusion: The 2008-09 ENL 102 assessment scores continue the trend of last year, that is, the scores continue to reflect an improvement over the scores of previous years. Again, we believe this can be attributed to the revised final Analyses question (prompt) and the revised rubric. Again, it is the unanimous opinion of the fulltime English instructors that both the ENL 102 final analyses question and the evaluation rubric more closely reflected the goals and objectives of the course, along with a closer reading of the textbook. As a result of these positive scores, the English Department will continue with the 2006-07 revised assessment tools for at least one more year, at which time we hope to get a larger sampling of papers.

# ASSESSMENT OF STUDENT ACADEMIC ACHIEVEMENT REPORT 2009 

## DEPARTMENT: FIRE SCIENCE

MISSION: (Circle One) General Education, Transfer Preparation, Employability, Developmental Education, Customized Education (Economic Development), or Personal Interest.

There are currently five levels of assessment that are possible within each department. These levels are related to development of the department assessment data gathering techniques and use of the information to fine-tune courses as necessary.

## Department Activity Level Checklist

| Activity Level: | Departmental Progress: |
| :---: | :---: |
| Level I: The department assessment processes have been detailed and developed for use by faculty. | Yes X No $\qquad$ <br> Attach copies of instruments used, instructions for students, time frames for activities, etc. |
| Level II: Data collection has been implemented. | Yes X No $\qquad$ <br> Attach copies of grading rubrics, analysis of test questions and overall findings. |
| Level III: Faculty, instructional leaders, and deans have analyzed the data. | Yes $\qquad$ No $\qquad$ <br> Attach copies of conclusions reached by the assessment team. |
| Level IV: Faculty, instructional leaders, and deans have used the data to improve studentacademic achievement. | Yes $\qquad$ No $\qquad$ <br> Attach highlights related to curriculum and/or assessment changes which were implemented through this process such as revision of study guides, exams, changes in grading rubrics. |
| Level V: Data has been used to improve the assessment process. | Yes $\qquad$ No $\qquad$ <br> Attach highlights related to improvements and/or streamlining the assessment process. |

# Assessment of Student Academic Achievement Report March, 2009 

The fire science department has chosen again to assess the FRS 104 Firefighter I \& II class using grade averages for each chapter. Those chapters that use hands on skills are compared with those chapters that have none. Using those results we can determine how to proceed to do a better job or improve chapter by chapter, and even class by class. We used data from two academy classes done during the 2008-2009 Fall and Spring classes. There are a total of 4 academy classes either finished or still in progress at this time. All academies use the same texts and skill sheets. However each class has different instructors and some different means of instructing. So for this assessment, the NPC SCC, NPC WMC, and the NAVIT academy classes are being assessed at this time. There are several variables such as different instructor styles and so forth that can influence the scores differently. The average for the latest year have improved somewhat. However, even with the improvement in scores, and the variable being as they are, the comparison of 2007 and 2008 surprisingly show the exact same results.

The following table is a comparison of the average grades for non-hands on chapters vs. hands on chapters. (Grade averages are of the written scores of three of four FRS 104 classes done this past year.)

| Non-hands on average scores: |  |  | Hands on average scores: |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\underline{2007}$ | $\underline{2008}$ |  | $\underline{2007}$ | $\underline{2008}$ |
| Chapts. 1 | 87.6\% | 89.2\% | Chapts. 2 | 85.4\% | 84.2\% |
| 5 | 78.4\% | 82.4\% | 3 | 80.9\% | 88.1\% |
| 6 | 76.6\% | 85.9\% | 4 | 80.0\% | 84.8\% |
| 8 | 89.3\% | 95.8\% | 7 | 84.0\% | 90.0\% |
| 19 | 86.3\% | NA | 9 | 84.9\% | 89.0\% |
| 22 | 84.9\% | 90.3\% | 10 | 91.1\% | 98.0\% |
| 26 | 88.0\% | 86.0\% | 11 | 89.0\% | 86.0\% |
| 37 | 89.9\% | 78.9\% | 12 | 82.9\% | 92.0\% |
|  |  |  | 13 | 89.2\% | 92.0\% |
|  |  |  | 14 | 82.6\% | 87.0\% |
|  |  |  | 15 | 81.9\% | 81.0\% |
|  |  |  | 16 | 83.6\% | 82.0\% |
|  |  |  | 17 | 99.2\% | 97.0\% |
|  |  |  | 18 | 86.3\% | 92.0\% |
|  |  |  | 20 | 93.5\% | 95.0\% |
|  |  |  | 21 | 99.4\% | 86.0\% |
|  |  |  | 25 | 81.5\% | 86.0\% |
|  |  |  | 35 | 89.8\% | 85.0\% |
|  |  |  | 36 | 76.2\% | 81.0\% |
| Total Avg | $\begin{aligned} & 85.1 \% \\ & 2007 \\ & \hline \end{aligned}$ | 86.9\% <br> Difference | 8 Difference | $\begin{aligned} & 86.4 \% \\ & \hline \end{aligned}$ | 88.2\% |

## Data Collection Results:

The average scores come from 2 of the 6 academy classes offered in 2007-2008 and 3 of the 4 academy classes offered in the 2008-2009 semesters. (See table) Results show that chapters that have hands on skill(s) in them, the student total averages tend to be slightly better than those chapters that have no hands on skills. The difference surprisingly is the same for both the years at $1.3 \%$ better scores for the hands on chapters. Variables such as size of the chapters and number of questions comparables have not even been measured. It is also noteworthy to look at the averages of the hands on chapters as the low scores never went below $81 \%$ and also had higher scores reaching as high as $98 \%$ (2009). The low on the non hands on chapters where not bad as the highs went up to $95.8 \%$ and the low went to just under $80 \%$, close to the $1.3 \%$ differences in the totals. We like the improvement in the averages between the two years but still feel there can be even more improvement in scores by utilizing the hands on skills to a new level. The state fire marshal has introduced a model that we would like to incorporate into our program and see if improvements can be made

Even though the average difference is just over $1 \%$ again, it still looks like the hands on skills do help students do better on their written test. Note that all these chapters do include lecture time as required by the state fire marshals recommendations. We believe that looking at chapter by chapter test results, we can determine if certain chapters may need more or less time (rather it be lecture or hands on) to help our students excel even better. This can help us in preparing our syllabus to determine where to spend more or less time. Also, it may tell us as instructors were we may need more training so that we can become better in certain subjects. Again, these results may be inconclusive for other academies and instructors. We could do the same assessment for each class to determine the results to help each instructor. It would also be wise to continue to compare past years results to continue improvements were results may indicate. To go even further, there are other instructional text books out there that can be compared to the ones we currently use and then bring those results to our advisory committee to make recommendations for the current and future classes.

In conclusion, the fire science program would like to improve on every chapter that we teach. The averages show that we have. We do not wish to forget that the class is made of individuals, and working with them and their individual needs help the cause. As mentioned earlier, we wish to work with the fire marshals model to utilize these hands on skills to bring fire science to real life and work with the individual student to help them in their progress. Using this model we will again compare averages next year and hopefully continue to fulfill the students' needs and expectations.

## ASSESSMENT OF STUDENT ACADEMIC ACHIEVEMENT REPORT 2009

## DEPARTMENT: General Education Program

MISSION: (Circle One) General Education, Transfer Preparation, Employability, Developmental Education, Customized Education (Economic Development), or Personal Interest. There are currently five levels of assessment that are possible within each department. These levels are related to development of the department assessment data gathering techniques and use of the information to fine-tune courses as necessary.

## Department Activity Level Checklist

| Activity Level: | Departmental Progress: |
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| Level III: Faculty, instructional leaders, and deans have analyzed the data. | Yes $\qquad$ No $\qquad$ <br> Attach copies of conclusions reached by the assessment team. |
| Level IV: Faculty, instructional leaders, and deans have used the data to improve student academic achievement. | Yes $\qquad$ No X $\qquad$ <br> Attach highlights related to curriculum and/or assessment changes which were implemented through this process such as revision of study guides, exams, changes in grading rubrics. |
| Level V: Data has been used to improve the assessment process. | Yes X $\qquad$ $\qquad$ <br> Attach highlights related to improvements and/or streamlining the assessment process. |

Assessment Chair's Signature

$\underline{\text { March 18, } 2009}$
Date

## GENERAL EDUCATION PROGRAM ASSESSMENT OF STUDENT LEARNING OUTCOMES

This report marks the first effort in some years to assess an aspect of student learning outcomes at Northland Pioneer College. Because of this, it is useful to first briefly review some elements of the history of the general education program. We then turn to our recent efforts to assess general education. These efforts are a part of NPC's HLC Assessment Academy project. Finally, we will present the results of our analysis of the critical thinking / critical inquiry component of general education using data collected by the social and behavioral sciences department as a part of their departmental assessment of student learning.

NPC adheres to a version of a "distribution model" of general education. However, NPC has designated a rather narrow and prescriptive set of courses that can be used to satisfy distributional requirements. Moreover, NPC is one of the few Arizona community colleges that has embedded the "intensive writing and critical inquiry" and the "cultural awareness" components into its AGEC (Arizona General Education Curriculum). Most other Arizona community colleges have specific courses that students can use to fulfill these requirements of the AGEC. The college currently has a total of about 60 courses that can be used to satisfy general education requirements. NPC's AGEC course list is can be found in the catalog and is also available at https://az.transfer.org/cgibin/WebObjects/AGEC.woa/9/wo/o7vqiDJnbKs0XecJmVn6rM/1.5.3.11.1. ${ }^{\text {. }}$

NPC has not always had such a restricted (or prescriptive) listing of general education courses. Prior to 1979 a very large array of courses could be used to satisfy distributional requirements. ${ }^{2}$ Between 1979 and 1987, the number of general education courses became more restrictive and a career awareness course was required as an institutional requirement. Over the next decade (1987-1999) the total number of hours of general education increased (from 35 to 44 hours for the AA) and distinctions between "foundational studies" and other distribution areas was made.

In the 1990s, along with other Arizona community colleges, NPC developed a relatively comprehensive approach to General Education known as TGECC (Transfer General Education Core Curriculum). In an undated [perhaps circa 1993 based on the 3 hour "institutional requirement"], document entitled "Transfer General Education Core Curriculum," the college identified five subject area requirements (English, mathematics arts and humanities, social and behavioral sciences, and physical and biological sciences) and three "special requirements" (Intensive Writing/ Critical Inquiry, Ethnic/Race/ Gender Awareness, and Global/ International or Historical Awareness).

[^3]The college asserted that
An effective General Education program requires the exercise of thoughtful and precise writing, critical reading, quantitative thinking, and process of analysis and syntheses [sic] which underlie valid reasoning (NPC Self-Study 1999:166).

In 1999, the TGECC evolved into the AGEC (Arizona General Education Curriculum). While the model eased the process by which students could transfer from community colleges, the basic premises of NPC's general education model did not change and the curriculum was only modified slightly.

The general education model that guides the general education curriculum at NPC continued to stress three broad learning goals:

1. critical inquiry (also referred to as critical thinking);
2. effective communication, both written and oral; and
3. knowledge of the diversity of social and physical environments across time and space.

Several of these components, especially those related to writing and cultural awareness, are embedded in general education courses across the curriculum. All general education courses, other than math courses, are required to include intensive writing requirements. All general education courses in arts and humanities, social and behavioral sciences, and biology are required to include learning outcomes that address the ethnic/gender awareness element of the diversity component. These, and other general education courses, also include learning outcomes that address other elements of diversity in social and physical environments.

The 2008-2009 college catalog includes an extensive section on the college's "General Education Values." The catalog states that "The purpose of general education is to give each student $\ldots$ the fundamental skills and the familiarity with various branches of knowledge that are associated with college and university education and the cultivation necessary for a lifetime of learning, problem solving and responsible, humane action. The catalog also notes that "Through a general education program, the College commits students and faculty to the pursuit of comprehensiveness in learning - to seeing the relationship of special interests to the larger academic and cultural contexts that we share."

The catalog defines "an effective general education program" as one requiring "the exercise of thoughtful and precise writing, critical reading, quantitative thinking and processes of analysis and synthesis that underlie valid reasoning." It stresses the importance of "writing, reading, mathematics and critical thinking" as well as studies "in the traditional academic disciplines" in which "courses demonstrate that the study of specialized subject matter in ... Arts and Humanities, Mathematics, Physical and Biological Sciences, Social and Behavioral Sciences... is critical to the central dialogues of general education."

In 2007 The Arizona General Education Articulation Task Force ${ }^{3}$ discussed general education to assess the extent of alignment student learning outcomes and to explore developing common outcomes. The discussions were useful but did not result in a uniform set outcomes.

Drawing on the values expressed in the catalog, the history of general education at NPC, and the discussions of the Arizona GEATF, NPC formally adopted general education mission statement and student learning outcomes for general education during the Fall 2008 semester.

MISSION STATEMENT: "The NPC general education program promotes skills in critical inquiry, communication and an understanding of diversity that supports a lifelong intellectual engagement in cultures and the natural world."

Student Learning Outcomes for General Education ${ }^{4}$
NPC 1 - Critical Thinking / Critical Inquiry:
Students will develop the practice of disciplined, independent thinking that allows for the analysis and evaluation of information.
NPC 2 - Effective Communication:
Students will develop thoughtful and precise verbal and written skills across a variety of social venues.
NPC 3 - Quantitative Reasoning:
Students will develop skills in the interpretation, explanation, and manipulation of quantitative data.
NPC 4 - Scientific Inquiry:
Students will develop the ability to formulate and assess hypotheses and analyze and evaluate theoretical frameworks.
NPC 5 - Information Literacy:
Students will demonstrate skills in locating, assessing, and analyzing information effectively, including the use of digital resources and tools.
NPC 6 - Diversity:
Students will develop knowledge of diverse cultural and natural environments.

The first outcome, critical inquiry, encompasses critical evaluation of source material and the ability to analyze and synthesize information and arguments. Students learn to read critically. Both quantitative (NPC3) and qualitative reasoning are deemed essential for critical inquiry. Although the critical inquiry/critical thinking component is embedded in the course outcomes of individual general education courses, the college has had difficulty in assessing critical thinking at the program level. Assessment of this component is the first assessment priority identified by NPC's Team participating in the HLC Assessment Academy.

[^4]NPC's initial project submission to the HLC Assessment Academy posed two "key questions" to guide our efforts.
(1) Is NPC's embedded general education model working? That is, how can we improve student mastery of our general education outcomes among students pursuing "transfer" or AAS degrees?
(2) Are students taking the same or similar courses in varying formats achieving equivalent learning outcomes?

The project also outlined a three general tasks in its plans for general education learning outcomes assessment.
(1) revive the college's assessment committee during the Spring 2008 semester,
(2) provide a clearer definition of NPC's general education outcomes, and
(3) identify the outcomes in general education courses that align with specific outcomes of the general education program.
The project committed to establishing An assessment cycle to examine one of the general education outcomes across general education courses beginning with a "pilot" assessment of the embedded critical thinking component of general education in the Spring 2008 semester. ${ }^{5}$

We accomplished the first task when the college's assessment committee was reestablished as ASK (Assessment of Student Knowledge), a subcommittee of the Instructional Council in May 2008. The subcommittee's charge, membership, and responsibilities are fully set out in the document approved by IC and reproduced in Appendix 1.
During the Fall 2008 semester, NPC more defined student learning outcomes for general education through formal and informal discussion among faculty. The new outcomes, as approved by Instructional Council, were presented above.

NPC's Assessment of General Education Project originally set out six specific steps and a timeline:

Step 1: Faculty will identify the basic general education outcomes (critical thinking has already been identified as one outcome).
Step 2: The committee will create prompts and scoring rubrics for general education outcomes.
Step 3: The committee will select a sample of students receiving associate degrees. These students will be given the prompt several days prior to an
"exit interview" conducted by two members of the assessment committee. The students will orally discuss their solution to the prompt and their experiences at NPC.
Step 4: The committee will score the responses to the critical thinking prompt and analyze and report results to the college community. Posting results and analysis on the NPC web will provide information for external stakeholders. Step 5: The committee and other faculty will identify the strengths and

[^5]weaknesses of the responses to the prompt and will develop course-level exercises/assignments designed to improve skills which can be embedded in general education courses.
Step 6: Provide a cross-discipline forum wherein faculty can have a conversation about their results in applying the particular general education outcome to their curriculum and classrooms.

The timeline associated with these steps as originally submitted is presented along with notes on progress:

1. Revive the college's assessment committee -- April, 2008. [Accomplished]
2. Pilot the critical thinking assessment with 20-30 students -- May 2008. [Attempted but unsuccessful - see discussion below]
3. Analyze and report results to the college - August 2008. [Not accomplished based on lack of success in \#2]
4. More clearly definition of NPC's general education outcomes - Aug.Dec. 2008. [Accomplished]
5. Examine general education course outlines to identify outcomes that align with specific general education outcomes - Fall 2008. [Begun but continuing]
6. Develop general education course level materials to improve student learning - Fall 2008 and continuously thereafter.
[Delayed]
7. Align the general education mission with the college's mission statement -- Spring 2009 semester.
[Accomplished in Fall 2008]
8. Interview about 50 graduating students with critical thinking prompt April 2009.
[Abandoned - see below]
9. A second general education outcome (yet to be identified) will be assessed during the 2009-2010 academic year. [Pending]

Unfortunately, this process proved to be largely unsuccessful. A prompt and rubric for assessing critical thinking was developed for the Spring 2008 pilot project. Thirty students, randomly drawn from those graduating with associate degrees, were invited to read the prompt and arrange for a 20 minute "exit interview" with two or three faculty members. The prompt was a problem that was designed to initiate conversation and to assess critical thinking. Students volunteering for the exit interview received a $\$ 50$ gift certificate. Despite the incentives (an opportunity to chat with faculty and a gift), only three students volunteered. None of the three scored above an average of $50 \%$ on the rubric. However, with such a small sample little can be said about the effectiveness of critical thinking for graduates.

Undaunted, the ASK subcommittee attempted to repeat the procedure for incoming students the following semester. All first-time, full-time degree seeking students were identified. A different prompt and a modified rubric were developed. The plan was to have all forty students respond to the prompt, to assess the results, and to re-assess the students in two years.

Faculty in most classes in which these students were enrolled were asked to solicit responses to prompt from the students. Several incorporated the prompt as an assignment.

Again, however, the response rate was so low - only seven students - that the data are of little use.
In late 2008, as it became apparent that efforts to successfully implement an independent assessment measure were doomed, the ASK subcommittee began to look for ways to analyze assessment data that have historically been embedded in course or departmental level assessments.

The two most promising areas are the social and behavioral sciences (SBS) department and arts and humanities $(\mathrm{A} \& H)$ area. Both use course level assignments and have developed rubrics for assessing critical thinking and effective communication as a part of scoring those assignments (See Appendix 2 for rubric for both areas). This change in plan has the added advantage of creating broader faculty participation in the assessment of general education outcomes and for the future success of embedding general education exercises into courses. Both of these goals were elements of NPC's original Assessment Academy "monitoring plan." ${ }^{6}$

Moreover, this approach better conforms to the existing model of NPC's program assessment as laid out in the college's catalog which notes that
over the length of a course or program NPC instructional units will collect samples of students' work across the college district, for use in assessment of collective student academic achievement. Such collected samples of students' work generally will be from selected course work required to complete a program or degree, or representative of work done up to a predetermined point along the way to program or degree completion.

Over the past decade, the SBS department has regularly focused on assessing students who had completed 9 or more credit hours of SBS general education coursework. The working hypothesis has been that students who had completed their SBS general education coursework should be competent research paper writers. Beyond scoring a sample of papers, past efforts focused on refining the departmental scoring rubric. The rubric was significantly revised as a result of the 2006 assessment cycle.

The rubric consists of five components: ideas, coherence, support, style, and mechanics. The first three components (comprising $80 \%$ of the total score) are weighted more heavily than the latter two. The first three components tap dimensions of critical inquiry directly connected to issues of significance in the disciplines within the social and behavioral sciences.

[^6]Our assessment methodology for the Fall 2008 semester uses student term paper scores, as graded by the instructor according to the departmental rubric, linked to the student's academic history (as found in student transcripts). Scores on the rubric were obtained from eleven full-time and adjunct faculty for over 300 term papers submitted during the semester. For various reasons some papers are not included in the analysis. ${ }^{7}$
Table 1 shows the distribution of the papers by course.

| TABLE 1 |  |  |
| :--- | ---: | ---: |
| Course | Number of <br> papers | Percentage |
| ANT102 | 71 | 23.8 |
| GEO110 | 8 | 2.7 |
| HIS106 | 14 | 4.7 |
| HIS155 | 6 | 2.0 |
| POS110 | 16 | 5.4 |
| PSY101 | 75 | 25.2 |
| PSY240 | 61 | 20.5 |
| SOC120 | 34 | 11.4 |
| SOC130 | 10 | 3.4 |
| SOC225 | 3 | 1.0 |
| Total | 298 | 100.0 |

Student records were checked to gather the following information:

- the total number of previous general education hours successfully completed (with a grade of C or better) by each student [but counting only one math course];
- the student's total number earned credit hour; and
- the student's cumulative grade point average.

Most of the missing information that led to deletion of term papers from the analysis is due to the inability to access the records of a small number of students because of registration holds or other limitations on accessing the data.

## Student Scores and Previous General Education Coursework

In order to control for faculty variability, a Z-score for each student by instructor was calculated. ${ }^{8}$ Figure 1 presents a scattergram that shows the student's total $Z$ score plotted against the total number of previously successfully completed general education courses. The relationship between term paper Z-scores and the previous general education hours is statistically significant (bivariate correlation: $\mathrm{r}=.153, \mathrm{p}=.008$ ). By contrast, the association between the paper scores and the total number of earned credit hours was not

[^7]significant $(\mathrm{r}=.08, \mathrm{p}=.17)$. Thus, the type, rather than the sheer amount, of previous education seems to make some difference in student performance.


Figure 1: Scattergram -- Overall student (Z) score by total number of previously earned general education credits

Figure 2 presents the same data in a line graph but using the average student Z-score and grouping students' previously completed into several categories.


Figure 2: Line graph -- Average student (Z) score by previously completed general education coursework

Students with no previous general education accounted for $30 \%$ of the sample (see Table 2) and performed most poorly overall. There were nearly as many (27.6\%) students who had from one to three previous general education courses (3 to 10 credits). They performed slightly better than those with no previous general education coursework but still were generally below the mean. The nearly $20 \%$ of students with 11 to 19 credit hours ( 3 or 4 to 6 general education courses) were above average and performed marginally better than the next higher group of students ( 20 to 25 credit hours). The nearly $10 \%$ of the students who had, or soon would have, the number of credit hours
necessary for completing their general education ${ }^{9}$ were generally those with the best papers.

| TABLE 2 |  |  |  |
| :--- | ---: | ---: | ---: |
| Previous General <br> Education Courses | Frequency | Percent | Cumulative <br> Percent |
| None | 89 | 30.0 | 30.0 |
| $\mathbf{3}$ to 10 credit hours | 82 | 27.6 | 57.6 |
| $\mathbf{1 1}$ to 19 credit hours | 58 | 19.5 | 77.1 |
| $\mathbf{2 0}$ to 25 credit hours | 40 | 13.5 | 90.6 |
| $\mathbf{2 6}$ to 50 credit hours | 28 | 9.4 | 100.0 |
| Total | 297 | 100.0 |  |

Three components of the SBS scoring rubric are designed to tap the dimension of critical inquiry - ideas, coherence and organization, and support. The relevant elements ${ }^{10}$ of these components are reproduced here:

Ideas - .... [Paper is] Interesting and demonstrates sophistication of thought. Central idea/thesis is clearly communicated and worth developing; limited enough to be manageable. Paper recognizes some complexity of its thesis: may acknowledge its contradictions, qualifications, or limits and follow out their logical implications. Understands and critically evaluates its sources, appropriately limits and defines terms.
Organization and Coherence - Uses a logical structure appropriate to paper's subject, purpose, audience, thesis, and disciplinary field. Sophisticated transitional sentences often develop one idea from the previous one or identify their logical relations. It guides the reader through the chain of reasoning or progression of ideas.
Support - Uses evidence appropriately and effectively, providing sufficient evidence and explanation to convince.

Although these components are highly correlated, an examination of student performance on each measure reveals some interesting patterns that may help guide future general education assessment. Students with 10 or less general education credit hours generally scored below the mean on each component ${ }^{11}$ and those with more than 26 credit hours generally scored best on each component ${ }^{12}$ (see Figures 3-6). There seems to be little difference among those students with 11 to 25 credit hours.

Our initial take on this is that students with four or five general education courses make strides in critical inquiry but reach something of a plateau until they are within three or four courses of completing their general education. We plan to explore this inference in the future by examining specific types of general education coursework completed.

We also note that one critical thinking component, the effective use of supporting evidence, seems to increase rather steadily as students progress through general education courses (Figure 6). It may be that this aspect of critical thinking receives special attention in social and behavioral science courses and that previous general education coursework attunes students to focus on faculty expectations in this area.

[^8]

Figure 3: Development of Critical Inquiry Skills
Graphs of Critical Thinking Components and previous successful completion of general education courses:


Figure 4 Coherence and Organization

囚

Figure 5: Communication of Ideas
$\square$
Figure 6: Use of Supporting Evidence

## Conclusions and Future Questions

The data from the Fall 2008 semester show a small but significant correlation relationship between the number of previous hours of general education courses and student term paper scores. As a result of the Fall 2008 results, the SBS department decided to repeat the analysis of term papers for the Spring 2009 semester. The Humanities faculty have also be asked to provide student ID numbers so that this analysis can be replicated with a set of courses from additional disciplines in general education.

A closer inspection of the sequencing of social behavioral science and other general education courses might help understand the results. That is, are there particular sets of courses that lead to stronger critical thinking skills as students move through the general education program?

One problem with the approach taken here relates to the "ecological fallacy." Are individuals performing better over time or not? Ideally, we will follow a cohort of students through the program to determine whether or not the correlation is an artifact of student's dropping out after there first general education course or if individual student's performance increases.

The data presented here are insufficient support making immediate changes in the curriculum. However, faculty are already developing (or experimenting with) new assignments in some courses that are designed to enhance student's critical thinking skills. Faculty in the SBS Department reviewed some of these data in February and began to discuss both additional assessment techniques and possible improvements to developing students' critical inquiry skills. One proposal is to post model student papers of varying quality with the faculty's consensus comments on strengths and weaknesses. Social Science and Humanities faculty have begun some conversations on how to improve critical thinking across the general education curriculum but are awaiting additional data analyses before making significant changes to current practices.

APPENDIX 1: ASK Subcommittee of Instructional Council.
Approved by IC (May 2008)

## The Assessment of Student of Knowledge (ASK) Subcommittee

The Assessment of Student of Knowledge (ASK) Subcommittee shall review, monitor and recommend improvements in the assessment of student learning and student knowledge to the Instructional Council.

Meetings: The ASK Subcommittee shall meet at least twice a semester, electing its chair at the beginning of the fall academic term.

## Membership:

The Committee shall be comprised of

- the five members of NPC's Higher Learning Commission Assessment Academy Team, appointed by the President
- a faculty member from each division that is not represented on the academy team, appointed by the faculty association
- an academic advisor appointed by the Vice President for Student Services
- a student appointed by the Student Government Association


## Committee Service Length:

Members of the assessment academy team shall serve for four years (the duration of assessment academy). Other members shall serve two year terms.

## Responsibilities:

1. Review general education and other curricular outcomes;
2. Review the procedures and plans used to assess of student knowledge by all departments and programs in the college;
3. Coordinate and support the annual assessment of student knowledge by departments and programs;
4. Develop and implement assessments of student knowledge that involve multiple departments and programs, especially in the area of general education and the modality of instruction.
5. Undertake, as directed by the Instructional Council, other projects related to the assessment of student knowledge;
6. Report to the Instructional Council at least once every semester
7. Provide an annual report to the Instructional Council on recommendations and findings related to the assessment of student learning and knowledge.

## APPENDIX 2:

## [SBS]: CRITICAL WRITING ASSESSMENT FORM

Critical writing assignments will be graded on a 100-point scale.
Ideas - $\mathbf{3 0}$ points possible - An "A" paper: Excels in responding to assignment. Interesting and demonstrates sophistication of thought. Central idea/thesis is clearly communicated and worth developing; limited enough to be manageable. Paper recognizes some complexity of its thesis: may acknowledge its contradictions, qualifications, or limits and follow out their logical implications. Understands and critically evaluates its sources, appropriately limits and defines terms.
Points for Ideas $\qquad$ Comments:

Organization and Coherence - $\mathbf{2 5}$ points possible - An "A" paper: Uses a logical structure appropriate to paper's subject, purpose, audience, thesis, and disciplinary field. Sophisticated transitional sentences often develop one idea from the previous one or identify their logical relations. It guides the reader through the chain of reasoning or progression of ideas.
Points for Organization and Coherence_Comments:
Support - 25 points possible - An "A" paper: Uses evidence appropriately and effectively, providing sufficient evidence and explanation to convince.
Points for Support Comments:
Style - 10 points possible - An "A" paper: Chooses words for their precise meaning and uses an appropriate level of specificity. Sentence style fits paper's audience and purpose. Sentences are varied, yet clearly structured and carefully focused, not long and rambling.
Points for Style $\qquad$ Comments:
Mechanics - 10 points possible - An "A" paper: Almost entirely free of spelling, punctuation, and grammatical errors. Demonstrates the correct usage of requested style guide: MLA, APA... etc. Points for Mechanics $\qquad$ Comments:

TOTAL POINTS FOR PAPER: $\qquad$ Other comments or suggestions:

## HUMANITIES: Humanities Department Holistic Scoring Guide for Final Critique

Directions: Each critique will be read by two humanities faculty members. Critiques will be scored according to the following criteria. A 5 or 4 is considered acceptable, 2 or 1 is not, and a 3 is read twice. If a critique receives one acceptable rating and one unacceptable rating, it will be evaluated by a third humanities faculty member.

EVALUATION CRITERIA:

FOCUS $\quad$| COMPREHENSION |  | SUPPORT |  | THINKING |
| :--- | :--- | :--- | :--- | :--- |

Instructors will indicate those papers that are plagiarized.

## ASSESSMENT OF STUDENT ACADEMIC ACHIEVEMENT REPORT 2009

## DEPARTMENT: Geology

MISSION: (Circle One) General Education, Transfer Preparation, Employability, Developmental Education, Customized Education (Economic Development), or Personal Interest.

There are currently five levels of assessment that are possible within each department. These levels are related to development of the department assessment data gathering techniques and use of the information to fine-tune courses as necessary.

## Department Activity Level Checklist

| Activity Level: | Departmental Progress: |
| :---: | :---: |
| Level I: The department assessment processes have been detailed and developed for use by faculty. | $\text { Yes } \mathrm{X} \quad \text { No }$ <br> Attach copies of instruments used, instructions for students, time frames for activities, etc. |
| Level II: Data collection has been implemented. | $\text { Yes } X \text { No }$ $\qquad$ <br> Attach copies of grading rubrics, analysis of test questions and overall findings. |
| Level III: Faculty, instructional leaders, and deans have analyzed the data. | Yes X $\qquad$ No $\qquad$ <br> Attach copies of conclusions reached by the assessment team. |
| Level IV: Faculty, instructional leaders, and deans have used the data to improve student academic achievement. | $\text { Yes } \mathrm{X} \quad \text { No }$ <br> Attach highlights related to curriculum and/or assessment changes which were implemented through this process such as revision of study guides, exams, changes in grading rubrics. |
| Level V: Data has been used to improve the assessment process. | Yes X $\qquad$ No $\qquad$ <br> Attach highlights related to improvements and/or streamlining the assessment process. |

Randy L Porch
Assessment Chair's Signature


Dean's Signature

4/1/09
Date


Instruments used for assessment:

1. Final Exam - A comprehensive final including laboratory skills component.
2. Laboratory write up - A formal presentation of a laboratory activity following a standard format.

Data:
\% of students who scored >70\% on assessment tool indicated

|  |  | Mid term Lab | Mid term | Final Lab | Final | Write up |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Spring | 2005 | - | - | - | 66 | 92 |
| Fall | 2005 | - | - | - | 58 | 83 |
| Spring | 2006 | 21 | 54 | 27 | 27 | 21 |
| Fall | 2006 | 59 | 62 | 43 | 50 | 76 |
| Spring | 2007 | 19 | 27 | 50 | 50 | 89 |
|  |  |  | weekly |  |  |  |
| Fall | 2007 | - | 71 | 32 | 52 | 85 |
| Spring | 2008 | - | 71 | 25 | 52 | 80 |
|  |  |  | 3 Exams |  |  |  |
| Fall | 2008 | - | 42 | 63 | 69 | 100 |

Final Exam being comprehensive allows for continued analysis to detect low achievement issues in areas that can be distinctly identified and an effective mitigation offered based upon the detail of the data generated. In Spring 2006 the exam was reviewed and changes made to insure an adequate number of question address the objectives for each chapter. Some chapter subjects are more involved and have more questions in the final exam. Low final exam scores for Sping and Fall 2006 and Spring 2007 were noted. The midterm scores for these semesters were also low. In an attempted to catch learning issues earlier than mid semester the department decided to use weekly exams in place of the midterm exam for Fall 2007 and Spring 2008. Results showed high achievement in weekly quizzes verse the midterm scores for the previous 3 semester ( $71 \%$ of student achieved $>70 \%$ score verse average $47 \%$ of students achieved $>70 \%$ score for the midterm, that represents an increase of $23 \%$ more students passing) however there was NO improvement in the final exam scores. This pedagogy was abandoned in Fall 2008 because it took 30 minutes every meeting to administer. Weekly quizzes were replaced with 3 Exams. There was a drop in number of students passing compared to the previous midterms ( $5 \%$ less) however 17\% more students passed the final exam. The Laboratory portion of the exams has been included in the data set above to show that this is a weak area of achievement that was recognized and has been address in Fall 2008 by initiating an Exit quiz for each laboratory meeting. Note the improved lab portion of the final exam with $63 \%$ of the student $s$ passing. For this Spring semester both of the mitigations (more class time and exit quiz for labs) initiated in Fall 2008 will continue to be applied with the goal that it will translate into improved final exam scores.

Laboratory write up requires the student to conduct a lab activity that will test a hypothesis, analyze the results, record the information in their note books, then at a later date submit a typed report adhering to a standard format (Title, Purpose, Material, Methods, Results, Discussion).

Less than passing scores were often attribute to the quality of note taking. To improve note taking skills I have increased the number of experiments the student conduct giving them practice and more opportunity for formative assessment. The student will not know which of the labs I will choose for them to submit this emphasizes the importance of good note taking skills and insures the student is relying upon their notes not memory for the report. I have also allowed for the student to resubmit their edited report. This has produce a favorable level of achievement with last semester having 100\% of the students scoring $>70 \%$. A change for this semester includes allowing for students to write a second report on a different project applying the edits noted on their first attempt to the second report. This may be a better indicator that the students are able to incorporate the suggested edits into a new project not yet reviewed.

Summary:
The Final Exam being comprehensive is an adequate instrument for assessing student academic achievement and allows for continued analysis to detect low achievement issues in areas that can be distinctly identified and an effective mitigation offered based upon the detail of the data generated.

The Laboratory write up instrument is adequate in assessing student academic achievement; it is especially beneficial as a formative assessment tool.

## ASSESSMENT OF STUDENT ACADEMIC ACHIEVEMENT REPORT 2009

## DEPARTMENT: HUMANITIES

MISSION: (Circle One) General Education, Transfer Preparation, Employability, Developmental Education, Customized Education (Economic Development), or Personal Interest.

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| Level V: Data has been used to improve the assessment process. | Yes $\qquad$ No $\qquad$ <br> Attach highlights related to improvements and/or streamlining the assessment process. |

## Assessment of Student Learning in the HUMANITIES 2008 - Northland Pioneer College

Report submitted 17 March 2009 by Barbara Hockabout, NPC Humanities Coordinator to
Dr. Canary, Dean of Arts \& Sciences \& Dr. Henderson, Assessment of Student Knowledge Subcommittee

The following information was gathered from data collected during the spring and fall semesters 2008.

Arts and Humanities - 9 credits

- ART 101 Understanding Art - 3 cr.
- ART 115 Art History I - 3cr.
- ART History II-3 cr.
- ENL 220 World Literature -3 cr .
- ENL 221 World Literature -3 cr .
- ENL 224 English Literature - 3 cr.
- ENL 225 English Literature - 3 cr.
- HUM 150 Humanities of the Western World I - 3 cr.
- HUM 151 Humanities of the Western World II - 3 cr.
- MUS 150 Music Appreciation - 3 cr.
- PHL 101 Introduction to Philosophy - 3 cr.
- PHL 105 Introduction to Ethics - 3 cr.
- SPT 130 Introduction to Theater - 3 cr .
- SPT 150 Introduction to Film - 3 cr.


## The Sampling:

Based on discussions that took place during a special Humanities Department meeting held on Saturday, November 15, 2008, it was agreed that in order to insure a more accurate reflection of our students' mastery of HUM department outcomes, a greater number of critiques should be read for the spring and fall semesters 2008.

Assessment data collected from spring and fall semesters 2007 was based on a random sampling of $20 \%$ of the total assessment tools collected (159). Instructors agreed to read twice as many (45\%) of those samples collected in 2008 (121).

Total 2008 HUM courses offered $=29$
Total 2008 HUM course critiques submitted $=16$
Total 2008 semester samples submitted $=121$
Total 2008 samples read and evaluated $=77$ (spring: 34 ; fall: 43)
The department did take into account the modality of the instruction this year, so that information will not be included in our summary.

## Evaluation Procedure:

In order to further insure a more accurate account of our students' assessment performance, humanities instructors also agreed that each critique sample should be read twice by two different readers.

Each of the five rubric traits was graded separately on a one - five scale ('1' the lowest display of mastery and ' 5 ' the greatest display of mastery). The total points were added
for each critique. Those critiques with a total score of 13+ were deemed acceptable or they passed; those with a total score of 12- were unacceptable or they did not pass.

Any critique that received an acceptable and unacceptable score was read again by a third, and in some cases, a fourth or fifth instructor until the score was reconciled with a score that reflected consensus.

| The Rubric: |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Focus <br> Traits of a ' 5 ' <br> germane, <br> addresses <br> prompt | Comprehension critique strong understanding of idea/philosophy, concrete application | Support <br> specifics terms \& examples | Thinking <br> original, logical, sophisticated | Expression <br> strong thesis, fresh, coherent, grammatically correct |
| Traits of a ' 1 ' fails to address prompt | critique <br> no understanding of idea/philosophy, no concrete applicatio | none contradictory trite | confused | no organization, gross grammatical errors |

## Results of a Trait-by-Trait Evaluation:

All scores were added up and the average found for each trait (77 samples)
Semester $\quad$ Spring (34 critiques) Fall (43 critiques)

Focus
6.7
7.5

Comprehension
6.8
7.4

Support
5.8
6.9

Thinking
5.9
7.2

Expression
6.5
7.7

Pass / Not Pass:

| Semester | Spring | Fall | Total for 2008 |
| :--- | :---: | :---: | :--- |
| Pass | 27 | 42 | $=69 / 77(90 \%)$ pass |
| Not Pass | 7 | 1 | $=8 / 77(10 \%)$ not pass |

Student Mastery Results:
The following lists the greatest level of mastery (greatest to least).

Spring Semester 2008
Comprehension
Focus
Expression
Thinking
Support

Fall Semester 2008
Expression
Focus
Comprehension
Thinking
Support

Conclusions and Implications:

* Most conspicuously, Thinking and Support prove to be the weakest outcomes both semesters.
* Focus remained a strong trait both semesters. This indicates that students understand the prompt.
* There was a larger sampling from the fall. This may have contributed to the higher scores over all. Another factor in the increased scores of the fall semester over the spring semester may be the information shared in a meeting prior to collecting the critiques at the end of the fall semester. The discussions that took place in the special Humanities Department meeting held November 15, 2008, may have inspired instructors to emphasize certain traits such as: strong thesis, clear writing, and solid organization. This may have had a bearing on the improved scores in Expression.
* Instructors expressed their deep concern about the inadequate writing and thinking skills of the average entry level humanities course student. Their concern is validated in the lowest scores (in traits Thinking and Support) that reflect a lack of understanding in how to develop a viable argument with solid support. It is most probable that humanities instructors doubled their efforts to coach students in these skills.
* There is a high passing rate. This is a vast improvement over the assessment scores from the previous year. (In 2007 there were 17/41=unacceptable and 24/41=acceptable critiques.) These improved results suggest that the effort to strengthen communication between members of the department probably had a positive influence in student performance (see recommendation \#1 in the 2007 HUM Assessment report). It also implies that the administration's support of department special department meetings in an attempt to achieve increased coordination and department consistency also paid off (see 2007 HUM Assessment report recommendation \#2). In addition, due to improved communication, instructors were most likely more consistent and thorough in explaining the assessment tool and process to students (see recommendation \#3 in 2007 HUM Assessment report).
* As there was no specific trait data collected last year, there is no basis for comparison. And as the department may well revise the rubric next year to be more consistent with Social and Behavioral Science assessment rubric for purposes of generating more data to assess general education outcomes, there most likely will not be data for a basis of comparison until the following year (2010). This means that our department activity level
will return to Level l: The department assessment processes have been detailed and developed for use by faculty.
* 


# ASSESSMENT OF STUDENT ACADEMIC ACHIEVEMENT REPORT Industrial Maintenance \& Operations Department February 04, 2009 

## Introduction

Our team decided to review ITP 210. This is the first Operations course in a series of four. It was our intent to determine the CBT (Computer Based Training) Scores compared to the lab study guides.
Our purpose and goal is to determine the best technique of teaching the lab portion of the course and to determine a better grading system.
The course is set up in a way that allows students to complete online courses and then takes a 20 question test. The student has to obtain an $80 \%$ or higher to move on to the next course. The student then attends a lab one night a week to discuss and reinforce what has been presented in the CBT's. We reviewed the scores from the two labs. The students at the Cholla Lab site will come in discuss the topic and then take a closed book test using the study guide and answer key. There are times the students can use notes to take the test. The SRP lab was set up to allow the instructor and students to complete the study guide and answer sheets together. The students would have the material on their computer and they would then fill out the answers together with the exception of missing a lab night. In this instance, the student comes in and completes the assignment or takes it home and turns in the following week.

## Data Collection Results

Our team reviewed the data for the Cholla lab using the training tracks 1,2 , and 4.
These tracks consist of 12 courses. We chose five students and reviewed their scores. It was determined that the students CBT scores are consistent with the Study Guide test. It was observed that the students stayed on track with the lab syllabi, since they knew they would be tested.
Our team also reviewed the data collected from the SRP lab. We selected ten students randomly. We reviewed the total average CBT scores from all 7 training tracks or 28 courses with that of the Study Guide test. It was noted that the average CBT score was 78.6 and the average Study guide score was 93.58 . We noticed that some students would be completing the study guide test without taking the CBT course. There was one student who had computer issues that failed to complete the all the CBT's, but did complete all the study guide assignments.

## Conclusion

Based on our findings, it has been determined that the technique of using a closed book testing process produces a better grade and a more disciplined student. Our next goal is to provide a final test using both the CBT test questions and the Study Guide questions.

## VI. ASSESSMENT OF STUDENT ACADEMIC ACHIEVEMENT REPORT (Due on March 16, 2009)

## DEPARTMENT: Mathematics

MISSION: (Circle One) General Education x, Transfer Preparation, Employability, Developmental Education, Customized Education (Economic Development), or Personal Interest.

There are currently five levels of assessment that are possible within each department. These levels are related to development of the department assessment data gathering techniques and use of the information to fine-tune courses as necessary.

Department Activity Level Checklist

| Activity Level: | Departmental progress: |
| :---: | :---: |
| Level I: The department assessment processes have been detailed and developed for use by faculty. | Yes X No $\qquad$ Attach copies of instruments used, instructions for students, time frames for activities, etc. |
| Level II: Data collection has been implemented. | Yes x No $\qquad$ Attach copies of grading rubrics, analysis of test questions and overall findings. |
| Level III: Faculty, instructional leaders, and deans have analyzed the data. | Yes x No $\qquad$ Attach copies of conclusions reached by the assessment team. |
| Level IV: Faculty, instructional leaders, and deans have used the data to improve student academic achievement. | Yes $\qquad$ No x $\qquad$ <br> Attach highlights related to curriculum and/or assessment changes which were implemented through this process such as revision of study guides, exams, changes in grading rubrics. |
| Level V: Data has been used to improve the assessment process. | Yes $\qquad$ No _x $\qquad$ Attach highlights related to improvements and/or streamlining the assessment process. |

_Barry Graham $\qquad$

Assessment Chair's Signature


Date March 16, 2009

Dean's Signature

This is the March 2009 Mathematics Department Assessment Report.

On the following pages we present data from four Math teachers, from the Fall Semester 2008.

Two of these teachers, [A \& B], gave in-class chapter tests and one of the in-class Final Exams which were authorized by the department.

The other two teachers, [C \& D], gave take-home chapter tests and one of the in-class Final Exams which were authorized by the department.

Before collecting and analyzing the data, our hypothesis was that the in-class chapter tests would be better than the take-home chapter tests at preparing the students for the in-class Final Exam. Therefore a comparison of the Final Exam grade, $[\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}$, or F$]$, with the Semester grade, $[\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}$, or F$]$, should show a more negative average difference per student, for Teachers $\mathrm{C} \& \mathrm{D}$, than for Teachers A \& B.

The data for each teacher is on pages $3,4,5$ and 6 .
The Conclusions are on page 7 .
The Summary is on page 8 .

## Teacher A

## Student Final Exam Semester Grade

A 1
B
B

A 2
B
B

A 3
A
B
A 4
A
A
A 5
A
B

A 6
B
B
A 7
A
A

A 8
B
B
A 9
B
B

A 10
B
A
A 11
A
A
A 12
A B
A 13
A
B
8 out of 13 were the same. [62\%]
1 out of 13 was one letter lower on the Final Exam. [08\%]
4 out of 13 were one letter higher on the Final Exam. [31\%]

## TEACHER B

| Student | Final Exam | Semester Grade |
| :--- | :---: | :---: |
| B 1 | B | B |
| B 2 | B | A |
| B 3 | F | C |
| B 4 | F | D |
| B 5 | D | C |
| B 6 | D | B |
| B 7 | B | A |
| B 8 | F | D |
| B 9 | F | D |
| B 10 | C | A |
| B 11 | C | A |

1 out of 11 was the same. [09\%]
6 out of 11 were one letter lower on the Final Exam. [55\%]
4 out of 11 were two letters lower on the Final Exam. [36\%]

## TEACHER C

| Student | Final Exam | Semester Grade |
| :--- | :---: | :---: |
| C 1 | A | B |
| C 2 | A | A |
| C 3 | F | F |
| C 4 | B | C |
| C 5 | C | D |
| C 6 | C | B |
| C 7 | C | C |

3 out of 7 were the same. [43\%]
1 out of 7 was one letter lower on the Final Exam. [14\%]
3 out of 7 were one letter higher on the Final Exam. [43\%]

## TEACHER D

Student Final Exam Semester Grade

| D 1 | C | A |
| :--- | :--- | :--- |
| D 2 | D | B |
| D 3 | F | C |
| D 4 | F | C |
| D 5 | C | A |
| D 6 | D | B |
| D 7 | D | B |
| D 8 | D | B |
| D 9 | F | C |
| D 10 | F | B |
| D 11 | D | B |
| D 12 | F | C |
| D 13 | B | A |

1 out of 13 was one letter lower on the Final Exam. [08\%]
11 out of 13 were two letters lower on the Final Exam. [85\%]
1 out of 13 was three letters lower on the Final Exam. [08\%]

We use the following categories and category weights:
Same=the Exam grade was the same as the Semester grade, weight 0
1lower-the Exam grade was one letter lower than the Semester grade, weight (-1)
2lower=the Exam grade was two letters lower than the Semester grade, weight (-2)
3lower=the Exam grade was three lower than the Semester grade, weight ( -3 )
1higher=the Exam grade was one higher than the Semester grade, weight $(+1)$
For each teacher we add the number of students in each category times the category weight and divide by the total number of students for that teacher to obtain the average difference per student.

Teacher A: $8($ same $)+1(1$ lower $)+4(1$ higher $)=8(0)+1(-1)+4(+1)=3$
Average difference per student $=3 / 13=+0.23$
Teacher B: $1($ same $)+6(1$ lower $)+4(2$ lower $)=1(0)+6(-1)+4(-2)=-14$
Average difference per student $=-14 / 11=\mathbf{- 1 . 2 7}$
Teacher C: 3 (same) +1 (1lower) $+3(1$ higher $)=3(0)+1(-1)+3(+1)=2$
Average difference per student $=2 / 7=+\mathbf{0 . 2 9}$
Teacher D: $1($ llower $)+11(2$ lower $)+1($ lower $)=1(-1)+11(-2)+1(-3)=-26$
Average difference per student $=-26 / 13=\mathbf{- 2 . 0 0}$

## The four teachers are thus ranked by this data as follows:

Teacher C is the "best", followed by Teacher A, then by Teacher B, and Teacher $D$ is the "worst". Note that the rankings are mixed and not clear-cut, [i.e. those giving the take-home chapter tests were both the best and the worst, while those giving in-class chapter tests are in the middle, ranking $\left.2^{\text {nd }} \& 3^{\text {rd }}\right]$.

## Our Conclusion is:

The Mathematics Teachers do not need to change the testing method that they are already using. Each teacher may continue testing as they have been.

The main NPC Mission Statement is:
Northland Pioneer College creates, supports and promotes lifelong learning. The general education Mission Statement is: "The NPC general education program promotes skills in critical inquiry, communication and an understanding of diversity that supports a life-long intellectual engagement in cultures and the natural world." And in particular:
NPC 3 - Quantitative Reasoning: Students will develop skills in the interpretation, explanation, and manipulation of quantitative data.

The Mathematics Department Assessment project, for this year, supports student learning by making sure that the students can develop their skills in using quantitative data, even under the different instructors' styles of chapter testing.

Our Mathematics Department wants to follow the Standards presented by the American Mathematical Association of Two-Year Colleges, [AMATYC]. These Standards can be found in the 98 -page book Beyond Crossroads, available at the following webpage: www.beyondcrossroads.com On page 10 of these AMATYC Standards it says: "Assessment should support mathematics learning and instruction." And on page 14 it says: "Effective mathematics instruction requires a variety of resources, materials, technology, and delivery systems that take into account students' different learning styles and instructors' different teaching styles." These statements tie in with both the Math Department Assessment project and with the NPC Mission Statement.

Also, on page 33 of the Standards it says: "Data gathered from all course sections, or a representative sample, should be aggregated and analyzed. Care must be taken to present assessment results without linking specific class section results to specific instructors. Course assessment should be used to assess overall student learning of course outcomes, not to evaluate individual instructors." The 2009 Math Assessment Report has kept the instructors anonymous.

# ASSESSMENT OF STUDENT ACADEMIC ACHIEVEMENT REPORT <br> MAY 2007 

DEPARTMENT: $\qquad$
MISSION: (Circle One) General Education, Transfer Preparation, Employability, Developmental Education, Customized Education (Economic Development), or Personal Interest.

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Northland Pioneer College

Multiple Exit Nursing Program

# ASSESSMENT OF STUDENT ACADEMIC ACHIEVEMENT 

FIRST YEAR REPORT

April 2006 - May 2007

## PARTICIPANTS

Dean of Nursing and Allied Health: Debra J. McGinty

Faculty: Theresa Artz-Howard<br>Kathyrn Brown<br>Red Hageman<br>Orina Hodgson<br>Michelle Hunt<br>Susan Jamison<br>Dana Jolly<br>Deborah Keith<br>Grace Klepacz<br>Marilyn Page<br>Danella Reidhead<br>Dianne Samarin<br>Carol Stewart<br>Rosalie Vroome<br>Ruth Zimmerman

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I. Selection of Formative and Summative Assessments
II. Administration of Assessments
III. Data Collection and Evaluation of Student Outcomes
IV. Departmental Analysis of Results
V. Curriculum Improvement and Modifications

## ASSESSMENT <br> OF <br> STUDENT ACADEMIC ACHIEVEMENT

## I. Selection of Formative and Summative Assessment

## Department assessment processes have been detailed and developed for use by faculty (Activity Level I)

The faculty and staff of the NPC Multiple Exit Nursing Program met August 2006 and reviewed the outcomes of the previous year. The group created meaningful mission and vision statements that supported the mission of the college and determined a course of action to implement plans prepared the previous year. They addressed the NCLEX-RN pass rate deficiency.

## Formative:

1. Nearly all students in the past were able to achieve a score of $100 \%$ on the dosage calculation and IV Proficiency assessments. Proficiency levels for the dosage calculation and intravenous therapy examinations were raised to $100 \%$ (Activity Levels II, III, IV, and V). The standard is supported by the Arizona State Board of Nursing.
2. The Health Education Systems Incorporated (HESI) national testing system was purchased to provide assessments of academic achievement. The system provided formative assessments at regular intervals throughout the academic year with remediation materials to address student weaknesses. With the assistance of a grant-funded Instructional Specialist, students were able to identify individual knowledge deficits. They received remedial materials selected to address specific content. The system of exams better prepared the students for the NCLEX-PN and NCLEX-RN examinations (Activity Level I).

The HESI examinations were selected in the previous cycle to support the implementation of continuation and graduation policies for the 2008 graduating class. The HESI system provides a summative assessment of academic achievement with acceptable evidence of reliability and validity. The faculty and Dean of Nursing and Allied Health observed a relationship between the HESI scores and failure rates of 2006 graduating students. Every student who failed the NCLEX-RN scored less than 800 on the HESI. Based on this data, a passing score of 800 on the HESI PN-Exit exam at the end of the second semester was the criterion for continuation to the third semester (Activity Level V).
3. Faculty indicated a desire to assess the adequacy of the Nursing Program admission standards. Correlations were measured to determine if there was a relationship between pre-admission variables and student performance as measured by HESI Exit Exams at the PN and RN levels.

## Summative:

4. Nursing Program policy requires a $78 \%$ average on unit and final exams to receive a passing grade in nursing courses. This standard significantly supports student achievement and provides an indication of mastery of learning outcomes.
5. The NCLEX-RN first time pass rate goal was increased from $75 \%$ to $90 \%$. The increase demonstrated the faculty's commitment and dedication to increasing academic rigor, improving curricular continuity, and providing student support. The Arizona State Board of Nursing ranks programs by first time pass rate. It is a widely accepted benchmark of instructional quality. Statewide results are published on the http://azbn.org website.
6. The NLCEX Program Reports offers assessment details regarding content areas and indicators describing how the students performed on the exam compared to national and regional averages. The faculty decided to subscribe to the report to learn more about areas of deficiency, trends in performance, and assess student achievement.
7. The graduate and employer surveys were revised to include a Likert scale to describe the level of preparation in a general sense and invite respondents to identify specific content and performance topics to evaluate. The topics were selected by reviewing comments from previous assessments and meetings with students and Advisory Board members (Activity Level V).
8. The Certified Nursing Assistant program was not included in the previous assessment. The Arizona State Board of Nursing requires data collection and analysis of pass rates by site. These data were collected and analyzed.

## II. Administration of Assessments

## Data collection has been implemented (Activity Level II)

The following assessments were conducted throughout the year:
Multiple Exit Nursing Program
Formative Assessments:
Semester I: Dosage Calculation Examination (Fall 2006)
Semester II: IV Proficiency Examinations (Spring 2007)
Semester III: IV Proficiency Examinations (Fall 2006)
HESI Exam/Remediation Series (Fall 2006/ Spring 2007)
Admission Scores and Academic Performance
(Spring 2006/Fall 2006/Spring 2007 for 2008 graduates; Spring 2007/Fall 2007/Spring 2008 for 2009 graduates)

Summative Assessments:
Unit and Final Examination Grade Average (Fall 2006; Spring 2007)
NCLEX-PN and NCLEX-RN First Time Pass Rate (Summer 2007)
NCLEX Program Reports (Summer 2007)
Graduate Survey (Summer 2006)
Employer Survey (Summer 2006)

## Certified Nursing Assistant Program

Summative Assessment: CNA Testing Results-Written and Skills Testing

## III. Data Collection and Evaluation of Student Outcomes

## Data has been analyzed by faculty.

## Formative Assessments

Students performed well on Dosage Calculation and IV Proficiency Examinations at both the first and second year levels. Critical thinking skills are frequently applied to case study situations to emphasize the importance of accurate dosage calculation and the avoidance of medication administration errors. More students at the LCC Campus required a third attempt than students at the WMC Campus. The required proficiency level was $100 \%$ for the first time. All students met the standard (Tables 1, 2, and 3)

| Year 2006 | Total Students | Students Passing <br> First Try | Students Passing <br> Second Try | Students Passing <br> Third Try |
| :---: | :---: | :---: | :---: | :---: |
| LCC | 15 | $5-33 \%$ | $7-80 \%$ | $3-100 \%$ |
| WMC | 28 | $17-61 \%$ | $9-93 \%$ | $2-100 \%$ |

Table 1. Dosage Calculation Testing Results for First Semester Students (Fall 2006)

| Year 2007 | Total Students | Students Passing <br> First Try | Students Passing <br> Second Try | Students Passing <br> Third Try |
| :---: | :---: | :---: | :---: | :---: |
| LCC | 11 | $4-36 \%$ | $4-73 \%$ | $3-100 \%$ |
| WMC | 30 | $6-20 \%$ | $23-97 \%$ | $1-100 \%$ |

Table 2. IV Proficiency Examination Results for Second Semester Students (Spring 2007)

| Year 2006 | Total Students | Students Passing <br> First Try | Students Passing <br> Second Try | Students Passing <br> Third Try |
| :---: | :---: | :---: | :---: | :---: |
| LCC | 9 | 0 | $5-56 \%$ | $4-100 \%$ |
| WMC | 28 | $17-64 \%$ | $10-96 \%$ | $1-100 \%$ |

Table 3. IV Proficiency Examination Results for Third Semester Students (Fall 2006)
The HESI Exam/Remediation System replaced the Educational Resource System (ERI) used in previous years. Students completed the examinations electronically at both campuses. Scores improved from the administration of the first and second examination following remediation (Table 4).

| Practical Nursing <br> HESI Examination <br> $(2006-2007)$ | Total <br> Students | Mean Score / <br> National Percentile | Percentage of Students <br> with Better than Average <br> Probability of Passing <br> NCLEX <br> $(>850)$ |
| :---: | :---: | :---: | :---: |
| Exam I: LCC | 13 | $806 / 38.09$ | $30 \%$ |
| WMC | 28 | $783 / 31.66$ | $28 \%$ |
| Exam II: LCC | 7 | $864 / 57.71$ | $71 \%$ |
| WMC | 16 | $885 / 64.61$ | $69 \%$ |


| Registered Nursing <br> HESI Examination <br> $(2006-2007)$ | Total <br> Students | Mean Score / <br> National Percentile | Percentage of Students <br> with Better than Average <br> Probability of Passing <br> NCLEX <br> $(>850)$ |
| :---: | :---: | :---: | :---: |
| Exam I: LCC | 37 | 814 | $42 \%$ |
| WMC | 9 | $861 / 56.07$ | $44 \%$ |
| Exam II: LCC | 9 | $862 / 56.30$ | $59 \%$ |
| WMC | 27 |  |  |

## Table 4. Results of PN and RN HESI Exam/Remediation System

The continuation policy was introduced during the 2006/07 academic year. First year students were required to pass the HESI PN Exit Exam with a score $\geq 800$. One student at each site required the third testing try.

The graduation policy to achieve $\geq 800$ was not implemented. The LCC student who did not pass the HESI, passed on the fifth try and passed the NCLEX with a second attempt. Seven WMC students failed to achieve an 800 on the HESI-RN Exit exam in three attempts. All but two of those students passed the NCLEX. These are not necessarily baseline data. The graduation policy was not in place and may have influenced student motivation to remediate.

| Practical <br> Nursing Exit <br> Exam | Total Students | Students Passing <br> First Try | Students Passing <br> Second Try | Students Passing <br> Third Try |
| :---: | :---: | :---: | :---: | :---: |
| LCC | 11 | $5-45 \%$ | $5-90 \%$ | $1-100 \%$ |
| WMC | 28 | $13-46 \%$ | $14-96 \%$ | $1-100 \%$ |


| Registered <br> Nursing Exit <br> Exam | Total Students | Students Passing <br> First Try | Students Passing <br> Second Try | Students Passing <br> Third Try |
| :---: | :---: | :---: | :---: | :---: |
| LCC | 8 | $6-75 \%$ | $1-88 \%$ | $0^{*}$ |
| WMC | 27 | $16-59 \%$ | $3-70 \%$ | $1-74 \%$ |

## Table 5. Results of Progression and Graduation Testing ( $\mathbf{\geq 8 0 0}$ )

Faculty desired to assess the adequacy of admission standards in the nursing program. They noticed students who scored lower on the Admission HESI Examination performed poorly and were likely to leave the Program. The prerequisite grade-point average (GPA) was previously weighted .50 in the calculation of applicants' total score. Table 6 demonstrates little if any relationship between prerequisite GPA and the Admission HESI score ( $\mathrm{r}=.12$ ), the HESI Exit PN score $(\mathrm{r}=.07)$ and the HESI Exit RN score $(\mathrm{r}=-.11)$ for 2008 graduates. While there are no universally accepted standards for nursing program admission requirements, many schools utilize a score on the HESI Admission standardized test. Table 6 demonstrates a strong correlation between HESI admission scores and HESI Exit PN scores ( $\mathrm{r}=.74$ ) and a moderate correlation with HESI Exit RN scores ( $\mathrm{r}=.51$ ).

|  | Admission <br> HESI Score | Prerequisite <br> GPA | HESI <br> Exit PN |
| :---: | :---: | :---: | :---: |
| Prerequisite <br> GPA | .12 |  |  |
| HESI Exit PN | $.74^{*}$ | .07 |  |
| HESI Exit RN | $.51^{*}$ | -.11 | $.56^{*}$ |

Table 6. 2008 Graduating Students - Correlations of Admission Criteria and Academic Performance ( $\mathbf{N}=\mathbf{3 3}$ ) *Correlation significant at the 0.01 level.

The pattern of a moderately strong correlation between the Admission HESI scores and HESI PN persisted in the 2009 graduating class $(\mathrm{r}=.45)($ Table 7) and increased when both the 2008 and 2009 classes were combined ( $\mathrm{r}=.61$ ) (Table 8).

|  | Admission <br> HESI Score | Prerequisite <br> GPA | HESI <br> Exit PN |
| :---: | :---: | :---: | :---: |
| Prerequisite <br> GPA | .13 |  |  |
| HESI Exit PN | $.45^{*}$ | .18 |  |

Table 7. 2009 Graduating Class - Correlations of Admission Criteria and Academic Performance ( $\mathbf{N}=\mathbf{3 9}$ ) *Correlation significant at the 0.01 level.

|  | Admission <br> HESI Score | Prerequisite <br> GPA | HESI <br> Exit PN |
| :---: | :---: | :---: | :---: |
| Prerequisite <br> GPA | .10 |  |  |
| HESI Exit PN | $.61^{*}$ | .11 |  |

Table 8. 2008 and 2009 Graduating Students - Correlations of Admission Criteria and Academic Performance ( $\mathbf{N}=\mathbf{7 2}$ ) *Correlation significant at the 0.01 level.

## Summative Assessments

Nursing faculty make a commitment to provide every possible opportunity and available resource to support student success. A minimum passing standard of $78 \%$ is used by the Nursing Program to determine a student's readiness to progress. Many students who fail to achieve the standard are held back, returning to the program to repeat the course with another cohort. Table 6 demonstrates six students in the first year pharmacology class NUR 117 failed the course. Four of those students were readmitted and later succeeded in completing the course. Four students failed NUR 125 at LCC in the Spring semester 2007. Three of those students returned to the program. One student repeated the class, passed the NCLEX-PN, and is expected to graduate May 2008.

| Fall 2006 | Total <br> Students | Students with <br> $<78 \%$ Average | Students with <br> $<78 \%$ Average <br> Readmitted to the <br> Program | Students who <br> Succeeded with <br> Readmission |
| :---: | :---: | :---: | :---: | :---: |
| NUR 117 LCC | 17 | 6 | 4 | 4 |
| WMC | 30 | 1 | 0 | - |
| NUR 121 LCC | 16 | 1 | 0 | - |
| WMC | 30 | 1 | 0 | - |
| NUR 221 LCC | 9 | 1 | 0 | - |
| WMC | 26 | 1 | 1 | 0 |


| Spring 2007 | Total <br> Students | Students with <br> $<78 \%$ Average | Students with <br> $<78 \%$ Average <br> Readmitted to the <br> Program | Students who <br> Succeeded with <br> Readmission |
| ---: | :---: | :---: | :---: | :---: |
| NUR 122 LCC | 13 | 0 | - | - |
| WMC | 29 | 0 | - | - |
| NUR 125 LCC | 13 | 4 | 3 | 2 |
| WMC | 29 | 0 | - | - |
| NUR 222 LCC | 8 | 1 | 1 | 1 |
| WMC | 27 | 2 | $2^{*}$ | 1 |

*One student unable to attend due to space restrictions at WMC

## Table 9. Unit and Final Examination Grade Average by Course

The first time NCLEX-PN pass rate among 2006 and 2007 graduates was $100 \%$ (Table 10). The Nursing Program percentage of students passing first try exceeded state and national averages.

| 2006 NCLEX-PN | Total <br> Students | Students Passing <br> First Try |
| :---: | :---: | :---: |
| LCC | 15 | $15-100 \%$ |
| WMC | 14 | $14-100 \%$ |
| Total | 29 | $29-100 \%$ |

National Average 87.9\% Arizona Average 97.1\%

| 2006 NCLEX-RN | Total <br> Students | Students Passing <br> First Try | Students Passing <br> Second Try | Students Passing <br> Third Try |
| :---: | :---: | :---: | :---: | :---: |
| LCC | 10 | $7-70 \%$ | $2-90 \%$ | $0-90 \%$ |
| WMC | 14 | $10-71 \%$ | $2-86 \%$ | $1-93 \%$ |
| Total | 24 | $17-71 \%$ | $21-88 \%$ | $23-96 \%$ |

National Average 88\% Arizona Average 90\% One student has yet to pass the exam
Table 10. NCLEX-PN Pass Rates by Year of Graduation and Campus

The first time NCLEX-RN pass rate among 2007 graduates was $91 \%$. The percentage of students passing first try exceeded state and national averages. (Table 11).

| 2007 NCLEX-PN | Total <br> Students | Students Passing <br> First Try |
| :---: | :---: | :---: |
| LCC | 5 | $5-100 \%$ |
| WMC | 21 | $21-100 \%$ |
| Total | 26 | $26-100 \%$ |

National Average 87\% Arizona Average 94\%

| 2007 NCLEX-RN | Total <br> Students | Students <br> Passing First <br> Try | Students Passing <br> Second Try | Students Passing <br> Third Try |
| :---: | :---: | :---: | :---: | :---: |
| LCC | 8 | $7-88 \%$ | $1-100 \%$ |  |
| WMC | 25 | $23-92 \%$ | 0 | 0 |
| Total | 33 | $30-91 \%$ |  |  |

National Average 85\% Arizona Average 86\%
One student has yet to pass the exam with two attempts; another passed on the fourth attempt.
Table 11. NCLEX-RN Pass Rates by Year of Graduation and Campus
The 2007 NCLEX Program Report indicated higher overall percentile ranking in all areas with the exception of: 1) Safety and Infection Control (59 \%ile to $53 \%$ ile nationally), 2) Nutrition (59 \%ile to 52 \%ile jurisdiction), 3) Elimination (61 \%ile to 55 \%ile jurisdiction), and 4) Older Adulthood ( $42 \%$ ile to $27 \%$ ile jurisdiction). In the $3^{\text {rd }}$ quarter of 2006, the NPC Nursing Program ranked $20^{\text {th }}$ of 21 nursing programs in Arizona. In the $3^{\text {rd }}$ quarter of 2007, the NPC Nursing Program ranked $8^{\text {th }}$ of 27 nursing programs in Arizona.

Eighty-three percent ( $83 \%$ ) of 2007 nursing graduates who passed the NCLEX RN took the minimum number of questions, compared to $57 \%$ of students state-wide (Table 11). These data indicate graduates who passed scored further from the decision zone than graduates from other programs.

|  | NPC Graduates | Graduates from <br> Arizona | Graduates from <br> Similar Programs <br> (U.S.) | Graduates from <br> All Programs <br> (U.S.) |
| :--- | :---: | :---: | :---: | :---: |
| Passers | $83 \%$ | $57 \%$ | $55 \%$ | $55 \%$ |
| Failers | $0 \%$ | $18 \%$ | $19 \%$ | $19 \%$ |
| All Candidates | $75 \%$ | $52 \%$ | $49 \%$ | $50 \%$ |

Table 11. Percentage of 2007 Candidates Taking Minimum Number of Questions

Three percent (3\%) of 2007 nursing graduates who passed took the maximum number of questions, compared to $12 \%$ of students state-wide (Table 12). These data indicate graduates who failed performed close to the passing standard.

|  | NPC Graduates | Graduates from <br> Arizona | Graduates from <br> Similar Programs <br> (U.S.) | Graduates from <br> All Programs <br> (U.S.) |
| :--- | :---: | :---: | :---: | :---: |
| Passers | $3 \%$ | $12 \%$ | $11 \%$ | $11 \%$ |
| Failers | $33 \%$ | $42 \%$ | $40 \%$ | $40 \%$ |
| All Candidates | $6 \%$ | $19 \%$ | $19 \%$ | $15 \%$ |

Table 12. Percentage of 2007 Candidates Taking Maximum Number of Questions

## Graduate Survey (Appendix A)

Seventy-seven (77) surveys were sent to $2004(\mathrm{n}=27)$, $2005(\mathrm{n}=26)$, and $2006(\mathrm{n}=24)$ graduates. Thirteen (13) surveys were returned for a response rate of $17 \%$. Most responses were in the adequate and more than adequate preparation range for all areas. Instructional areas with evidence of excellence were medication administration, nursing care plans, and communication skills. Areas noted to need improvement included intravenous therapy, socials service skills, knowledge of pharmacology, and faculty demonstrations. Several students qualitatively emphasized the value of the clinical experiences.

## Employer Survey (Appendix B)

Surveys were sent to six facilities in July 2006 for distribution to administrative and nursing staff. Six responses were returned from four facilities. Data were received from Navapache Regional Medical Center, RTA Hospice, Winslow Campus of Care, and White Mountain Regional Medical Center. No information was received from Little Colorado Medical Center or Flagstaff Medical Center. Richard Henn reported he distributed the surveys and sent them out a second time, however, no responses were received. Adequate preparation was noted in all areas with the exception of basic nursing procedural skills, i.e., intravenous access, and assessment skills. Pharmacology deficits were reported which was consistent with scores on the NCLEX Program Reports.

## Certified Nursing Assistant Program

The Arizona State Board of Nursing requires the Certified Nursing Assistant Program to summarize data annually. Table 13 demonstrates the detail for first time pass rate of $64 \%$ for 2006, a decrease from 2005 pass rate of $76 \%$. Higher percentages of students at White Mountain Campus passed the first time (76\%) than at Little Colorado (64\%), Springerville-Eagar (50\%) or Whiteriver (67\%).

## NURSING ASSISTANT TRAINING

| Instructional Site | Students Completing Course | Students Completing Exam | $\mathbf{1}^{\text {PT }}$ Time (numbers $/ \%$ of students) | $\mathbf{1}^{\text {st }}$ Time Written <br> Pass Rate | $1^{\text {st }}$ Time <br> Clinical <br> Pass Rate | Written Retake Pass Rate | Clinical Retake Pass Rate |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| White Mountain Campus |  |  |  |  |  |  |  |
| SP2005 NAVIT Samarin | 15 | 11 | 7/64 | 11 | 7 | 0 | 2 |
| SP2005 VIDEO Artz-Howard | 32 | 26 | 25/96 | 26 | 25 | 0 | 0 |
| SUMMER 2005 Samarin | 18 | 18 | 15/83 | 17 | 15 | 0 | 1 |
| FA2005 VIDEO Artz-Howard | 27 | 17 | 11/65 | 17 | 11 | 0 | 6 |
| FA2005 NAVIT Artz-Howard | 8 | 4 | 3/75 | 4 | 3 | 0 | 1 |
| SP2006 NAVIT Neff | 6 | 3 | 2/67 | 3 | 2 | 0 | 1 |
| SP2006 NAVIT Jamison | 19 | 15 | 11/73 | 15 | 11 | 0 | 3 |
| SP2006 VIDEO Artz-Howard | 27 | 18 | 13/72 | 18 | 13 | 0 | 4 |
| SUMMER 2006 Neff | 15 | 9 | 6/67 | 9 | 6 | 0 | 0 |
| FA2006 NAVIT Jamison | 18 | 4 | 1/25 | 3 | 2 | 0 | 0 |
| FA2006/VIDEO Samarin | 28 | 19 | 14/74 | 19 | 14 | 0 | 0 |
| Total | 213 | 144 | 109/76\% | 142/99\% | 109/76\% | 0 | 18 |
| Little Colorado Campus |  |  |  |  |  |  |  |
| SP2005 NAVIT Muchmore | 4 | 2 | 2/50 | 2 | 2 | 0 | 0 |
| SP2005 VIDEO Zufelt | 17 | 16 | 13/81 | 16 | 13 | 0 | 1 |
| FA2005 NAVIT Bumpus | 3 | 3 | 2/67 | 2 | 3 | 0 | 0 |
| FA2005VIDEO Samarin | 20 | 17 | 11/65 | 16 | 11 | 0 | 3 |
| SP2006 NAVIT Zufelt | 10 | 9 | 7/78 | 8 | 7 | 0 | 1 |
| SP2006 VIDEO Samarin | 28 | 26 | 18/69 | 21 | 22 | 2 | 1 |
| SUMMER 2006 Samarin | 19 | 17 | 2/12 | 12 | 3 | 1 | 7 |
| FA2006 VIDEO Artz-Howard | 14 | 7 | 7/100 | 7 | 7 | 0 | 0 |
| Total | 115 | 97 | 62/64\% | 84/87\% | 62/64\% | 3 | 13 |
| Springerville-Eagar |  |  |  |  |  |  |  |
| SP2005/SPE NAVIT Geesling | 6 | 6 | 3/50 | 6 | 3 | 0 | 3 |
| FA2005/SPE NAVIT Geesling | 4 | 2 | 1/50 | 1 | 2 | 1 | 0 |
| Total | 10 | 8 | 4/50\% | 7/88\% | 6/75\% | 1 | 3 |


| Instructional Site | Students Completing Course | Students Completing Exam | $1^{\text {ST }}$ Time <br> Past Rate | $\begin{aligned} & \hline \mathbf{1}^{\text {st }} \text { Time Written } \\ & \text { Pass Rate } \end{aligned}$ | $1^{\text {st }}$ Clinical <br> Pass Rate | $\begin{gathered} \hline \text { PASSED } \\ \text { WRITTEN } \\ \text { RETAKE } \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { PASSED } \\ \text { CLINICAL } \\ \hline \text { RETAKE } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Whiteriver |  |  |  |  |  |  |  |
| SP2005/Rominger | 4 | 2 | 0 | 1 | 0 | 1 | 1 |
| FA2005/McGinty | 9 | 6 | 5/83 | 6 | 5 | 0 | 1 |
| SP2006/McGinty | 8 | 8 | 5/63 | 5 | 8 | 2 | 0 |
| FA2006/ Page | 7 | 2 | 2/100 | 2 | 2 | 0 | 0 |
| Total | 28 | 18 | 12/67\% | 14/78\% | 15/83\% | 3 | 2 |
|  |  |  |  |  |  |  |  |
| Total 2005 | 167 | 130 | 99/76\% | 125/96\% | 100/77\% | 2 | 19 |
| Total 2006 | 199 | 137 | 88/64\% | 122/89\% | 97/71\% | 4 | 17 |
| Total | 366 | 267 | 187/70\% | 247/93\% | 197/74\% | 6 | 36 |

Table 13. CNA Exam Results by Site Arizona State Pass Rate Averages: Written- $87 \%$ Clinical Skills 7

## IV. Departmental Analysis of Results

The NPC Nursing Program identified problem areas contributing to the students' poor performance on the 2006 NCLEX-RN exam:

1) Curriculum content for each course was not clearly defined.
2) Testing throughout the program did not always address critical thinking at the level of application and analysis.
3) Students who had a history of poor academic performance were not identified early in the program as at-risk students and offered individual support.
4) There were no remediation plans in place throughout the students' program of study. Program evaluation focused on performance in three critical areas: academic rigor, student support, and admission policy.

## Academic Rigor

The faculty focused on the NCLEX Program Reports and discovered our student scores were much improved. That is, fewer students scored close to the cut score and the students who failed did not fail by much. To improve the level of academic rigor, the program instituted curriculum and practice changes. Some of these changes were recommended during the Board site visit in September 2006. Other changes were developed following analysis of the data and reports contained herein.

Curriculum content for courses and individual classes were not clearly defined or followed consistently. The faculty also discovered the use of study guides inadvertently reduced the scope and depth of study by students. The faculty replaced the guides with course and class content outlines that included clearly delineated student assignments. This practice provided more consistency and structure within and between courses and allowed students to more effectively direct their study efforts. Faculty members varied widely in their use of handouts with some providing extensive notes to students and others providing no handouts at all. The Dean encouraged standardization of handouts and arduous development of lesson plans for didactic and simulation skill laboratory experiences.

The faculty evaluated unit exams and test banks to assure items were at the level of analysis and application and reflected sufficient academic rigor. Faculty accessed the National Council of State Boards of Nursing (NCSBN) Test Development and Item Writing Course to improve the assessment process. Three nursing faculty have completed the course to date.

The faculty evaluated the NCLEX reports and identified three areas for immediate improvement: pharmacology, physiology, and basic care. They integrated pharmacology into every lecture and required students to address this content in each care plan assignment. The pharmacology course was extended to two semesters to allow more structured learning opportunities.

The faculty infused more physiology into the curriculum by providing frequent demonstrations in simulation lab experiences. Faculty members developed scenarios requiring greater understanding of physiology. These activities improve critical thinking and provide students with opportunities to practice skills within a clinical context.

Faculty examined course syllabi and created more measurable learning outcomes for each class. The faculty worked with the content to create learning objectives that were addressed with learning activities. They removed some of the conceptual threads found in the Healing Community framework because they were nonspecific and off topic. The extent to which NCLEX topics were reflected in the coursework was examined in May 2007 when faculty aligned the course content to the 2007 NCLEX-RN Detailed Test Plan for Educators. This comprehensive approach identified gaps in the curriculum. Revisions of the clinical evaluation tool and progression of skills in the simulation labs was planned to improve clinical learning. The goal was to achieve a curriculum that with a solid foundation offering students progressively complex learning opportunities.

Faculty knowledge and skill development benefited from attendance at professional development workshops, conferences and seminars including: Mosby's Faculty Development, Ignatavicius' Boot Camp, Teaching the Teacher, and Critical Care coursework. Information acquired was summarized and disseminated to faculty and students. The nursing faculty individually and in teams contributed six presentations of teaching innovations to the annual Healing Community conference offerings in February 2007.

## Student Support

Since September 2006, the program employed a masters-prepared Instructional Specialist who provided tutoring and worked with faculty to create structured learning plans for at-risk students. The individualized plans emerged from a student-centered process that addressed personal and academic issues and time management. The students conducted a self-assessment of their study habits, distractors, and test-anxiety, and were invited to participate in study groups. Each student's academic performance was followed by the faculty who offer counseling sessions as necessary. The program was awarded a one-year extension in May 2007 for the 2008-09 academic year.

Students were required to complete a critical thinking software program to enhance their understanding of test-taking and critical reading strategies. Improvements were observed in some students while others repeated the program to reinforce critical concepts.

The nursing program provided multiple opportunities for students to experience the Health Education System (HESI) tests and access remediation materials. Individualized resources were provided by Elsevier, Mosby and Saunders nursing texts. Ten students in the graduating class of 2007 significantly increased their scores utilizing this method of remediation.

The nursing program accessed grant funds to provide students with a comprehensive enrichment/review course. The course was facilitated at the White Mountain Campus by a faculty member during the week following graduation with online access to materials and test questions that reflect NCLEX content.

## Admission and Continuation Policies

To ensure students entering the program have the skills necessary to succeed, the 2006 admission committee balanced grade point averages with HESI admission examination scores. Standards for acceptance into the nursing program were higher than previous years. For example, two students, one admitted Fall 2006 and another admitted Fall 2005, did not meet the criteria for admission for Fall 2007.

The program also instituted a progression policy for continuation to the second year. All students achieved a minimum score of 800 on the HESI exit exam, passing the second semester core course and progressed to the $3^{\text {rd }}$ semester.

In summary, improvements were made during this assessment cycle as data were analyzed. Faculty planned to continue to address curriculum, instructional methods, clinical outcomes, and best practices and respond quickly with evidence-based educational interventions.

The reality of the 2006 scores served as a harsh lesson of the importance of academic rigor, student support, and admission standards to ensure student success. The Dean and faculty assures the Northland Pioneer College community that the steps taken to ensure Northland Pioneer College nursing program continued successful NCLEX outcomes have been carefully and cautiously crafted.

## V. Sharing Results with Faculty/Associate Faculty/Staff

Results of the formative and summative reports were shared with faculty as they became available. Faculty reviewed reports individually and collectively. They discussed the results at many faculty, advisory board, and core planning meetings as well as on Reading Day.

## VI. Curriculum Improvement and Modifications

While the faculty aligned the curriculum to National League of Nursing requirements, they realized too many interventions had been implemented simultaneously to determine which particular intervention most influenced the positive outcomes. As a result of these discussions, the faculty decided to continue to implement the following modifications:

The $100 \%$ proficiency requirement on the dosage calculation was continued. Proficiency levels for intravenous therapy examinations will continue to be $100 \%$ (Activity Levels II, III, IV, and V). The standard is supported by the Arizona State Board of Nursing.

The Health Education Systems Incorporated (HESI) national testing system will continue to provide assessments of academic achievement. The system of utilizing three formative assessments at regular intervals throughout the academic year with remediation opportunities will continue to identify individual knowledge deficits. The role of the Instructional Specialist was duplicated at the Winslow campus with a part-time position supported by the grant extension through the 2008-09 academic year.

The faculty decided to move forward with the use of HESI examinations to support the implementation of a graduation policy for the 2008 graduating class.The faculty and Dean of Nursing and Allied Health will closely observe the relationships between the HESI scores and passing rates of 2008 graduating students to inform this nursing policy.

Faculty shared the data from the 2006/2007 assessment regarding the adequacy of the Nursing Program admission standards with the Admission Committee. The HESI scores accounted for $60 \%$ of the total score required for admission while prerequisite GPA weight was reduced to $40 \%$.

The faculty supported continuing the Nursing Program policy requiring a $78 \%$ average on unit and final exams to receive a passing grade in nursing courses. The standard significantly supports assessment of student achievement.

The NCLEX-RN first time pass rate goal will be maintained at $90 \%$. The faculty believed this standard was achievable.

The Program will continue to subscribe to the NLCEX Program Reports for assessment details regarding content areas as well as indicators of state and national ranking. The graduate and employer surveys migrated to an online modality supported by a Likert scale to measure student satisfaction and performance in work settings following graduation with greatly improved response rates. Graduates and staff were invited to become student mentors in the survey. Questions to determine if the students have entered a BSN or graduate program to continue their education will be added to future surveys.

Data from the Certified Nursing Assistant program will continue to be included in the assessment cycle. CNA faculty will participate in an examination simulation and are given detailed results of their students' skills and written examination results.

Nurse Logic and HESI formative exams were felt to be valuable tools to increase critical thinking and test-taking strategies and experience NCLEX-type questions. These subscriptions will be renewed.

Unit and skills lab objectives will continue to be revised to reflect critically important content and practice. Course, lecture, and skill lab outlines will continue to be developed.

Faculty will continue to attend professional development workshops to gain skill in creating simulation and clinical skill-building scenarios, writing items for nursing exams, and utilizing effective teaching modalities.

Content-specific NCLEX review questions and training will be presented in a grant-supported enrichment course presented by NPC Nursing faculty May 2008.

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Histogram


Histogram


Cumulative

Histogram


Histogram


Northland Pioneer College
Medical Assistant Program

# ASSESSMENT OF STUDENT ACADEMIC ACHIEVEMENT 

FIRST YEAR REPORT

April 2007 - May 2008

## PARTICIPANTS

Dean of Nursing and Allied Health: Debra J. McGinty

Faculty: Hollie Cunningham<br>Carol Stewart<br>Doris Marostica<br>Dianne Samarin

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I. Selection of Formative and Summative Assessments
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## I. Selection of Formative and Summative Assessment

## Department assessment processes have been detailed and developed for use by faculty (Activity Level I)

The faculty and staff of the NPC Medical Assistant Program decided to evaluate student academic achievement by reviewing student transcripts to determine a) completion of course and b) advancement through the program.

## Formative:

The program evaluated student performance in the following courses:
MDA 120 Fall 2007 LCC
MDA 120 Fall 2008 WMC
MDA 120 Fall 2008 LCC
MDA 123 LCC Spring 2008
MDA 198 LCC Summer 2008
HES 109 WMC Fall 2008

## II. Departmental Analysis of Results (Table 1)

## MDA 120 Little Colorado Campus

## Fall 2007

All 7 students passed the course.
Spring 2008
One student became very ill, was hospitalized, recovered, tried to complete the class and then became sick again, falling too far behind to catch up.
Spring 2009
One student continued, acquired a job at the hospital but could not attend the HES 120 Ethics class and was dropped for poor attendance
One student is working toward her degree
Three NAVIT students dropped from the program secondary to failing BIO 160
One student on administrative hold - unable to acquire records

## MDA 120 White Mountain Campus <br> Fall 2008

All 5 students passed
Four NA VIT students continuing in Spring 2009 MDA courses
Two NAVIT withdrew from BIO 160; one passed BIO 160; One on administrative hold - unable to acquire records
One public student continuing in Spring 2009 MDA courses. Did not take BIO 160

## MDA 120 Little Colorado Campus

## Fall 2008

Three students passed; one student failed
Three NAVIT students failed/withdrew from BIO 160, yet proceeded to Spring semester MDA coursework.
One public student continued to Spring semester MDA coursework.
One public student on academic hold - unable to acquire records

## MDA 123 Little Colorado Campus Spring 2008

Two of four students dropped:
One student completed HES 109 needed to start working and couldn't manage to complete the course with her work schedule
One student became very ill, was hospitalized, recovered, tried to complete the class and then became sick again, falling too far behind to catch up.
One student continued, acquired a job at the hospital but could not attend the HES 120 Ethics class and was dropped for poor attendance Spring 2009.
One student is working toward the degree Spring 2009.

## MDA 198 Little Colorado Campus

## Spring 2008

Student completed internship and working toward degree Spring 2009

## HES 109 White Mountain Campus

Fall 2008
22 of 23 students passed
Nine students completed this class and did not re-enroll.
One failed additional A \& S courses during the Fall 2008 semester.
One concurrently enrolled in EMT 132.
One proceeded to ECD.
One with history of many MDA and CNA courses continued. One concurrently enrolled in NAT 101.
Five Pre-Nursing Students: three admitted to program; one failed BIO 201/202
Three continued in medical assistant program
One current nursing student
One student continuing in A \& S
One student on administrative hold - unable to acquire records

## III. Program Improvement and Modifications

Significant number of students (7) failed BIO 160 and did not advance in the medical assistant program of study. Several students did not complete BIO 160 but advanced despite their failure.with support from the NAVIT program. Despite expressed concerns, BIO 160 was placed online Fall 2008 resulting in failures. A traditional classroom format might provide the instructional support needed for student success and advancement in the medical assistant program. Students apparently require academic assistance with course content in order to succeed. The medical assistant program will explore tutoring and assistance options available through college academic support services.

Some nursing and pre-nursing students are enrolling in phlebotomy class to enhance their skills and/or maintain full-time status for financial assistance. Phlebotomy class appears to be an entry to medical assistant program. Additional marketing to increase the number of students enrolling in the MDA program might include enrollment in phlebotomy. Enrollment has been low due to the low salaries provided in the community for medical assistant employees. Marketing efforts for Fall 2009 will emphasize the benefits of a medical assistant position in an effort to increase enrollment.
Table 1. Medical Assistant Students Enrollment in Selected Courses: Number of students who completed and continued with academic program requirements.

| Campus | Fall 2007 |  |  | Spring 2008 |  |  | Fall 2008 |  |  | Spring 2009 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MDA 120 Administrative Office Procedures |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| LCC | 7 | 7 | 2 |  |  |  | 5 | 5 | 4 | 9 |  |  |
| HES 109 Phlebotomy |  |  |  |  |  |  |  |  |  |  |  |  |
| WMC | 11 | 10 |  | 19 | 16 |  | 23 | 22 | 13 | 15 |  |  |
| LCC | 7 | 7 |  | 4 | 4 |  |  |  |  | 11 |  |  |
| MDA 123 Clinical Procedures 11 |  |  |  |  |  |  |  |  |  |  |  |  |
| WMC |  |  |  |  |  |  |  |  |  |  |  |  |
| LCC |  |  |  | 4 | 2 | 2 |  |  |  |  |  |  |
| MDA 198 Administrative/ Clinical Internship |  |  |  |  |  |  |  |  |  |  |  |  |
| WMC |  |  |  | 1 | 1 | 1 |  |  |  |  |  |  |
| LCC |  |  |  |  |  |  |  |  |  |  |  |  |

## ASSESSMENT OF STUDENT ACADEMIC ACHIEVEMENT REPORT 2008

## DEPARTMENT: Real Estate

MISSION: (Circle One) General Education, Transfer Preparation, Employability, Developmental Education, Customized Education (Economic Development), or Personal Interest.

There are currently five levels of assessment that are possible within each department. These levels are related to development of the department assessment data gathering techniques and use of the information to fine-tune courses as necessary.

## Department Activity Level Checklist

| Activity Level: | Departmental Progress: |
| :---: | :---: |
| Level I: The department assessment processes have been detailed and developed for use by faculty. | $\text { Yes __ No } \quad \mathrm{X}$ <br> Attach copies of instruments used, instructions for students, time frames for activities, etc. |
| Level II: Data collection has been implemented. | Yes $\qquad$ No $\qquad$ <br> Attach copies of grading rubrics, analysis of test questions and overall findings. |
| Level III: Faculty, instructional leaders, and deans have analyzed the data. | Yes $\qquad$ No $\qquad$ <br> Attach copies of conclusions reached by the assessment team. |
| Level IV: Faculty, instructional leaders, and deans have used the data to improve student academic achievement. | Yes $\qquad$ No $\qquad$ <br> Attach highlights related to curriculum and/or assessment changes which were implemented through this process such as revision of study guides, exams, changes in grading rubrics. |
| Level V: Data has been used to improve the assessment process. | Yes $\qquad$ No $\qquad$ <br> Attach highlights related to improvements and/or streamlining the assessment process. |

Assessment Chair’s Signature

Dean's Signature

## Date

## Date

April 3, 2008

## Real Estate Assessment Report

Pat McCann is the main real estate instructor. Kevin Smith teaches one prelicensing class per year.

Pat McCann meets personally with former NPC real estate students who have passed NPC's real estate class but don't pass the state test. This personal one-on-one attention has been done with eight students this year alone.

Students who have been tutored individually have then passed the state test and are now real estate agents or brokers.

## ASSESSMENT OF STUDENT ACADEMIC ACHIEVEMENT REPORT 2009

## DEPARTMENT: SOCIAL and BEHAVIORAL SCIENCES

MISSION: (Circle One) General Education, Transfer Preparation, Employability, Developmental Education, Customized Education (Economic Development), or Personal Interest.

There are currently five levels of assessment that are possible within each department. These levels are related to development of the department assessment data gathering techniques and use of the information to fine-tune courses as necessary.

## Department Activity Level Checklist

| Activity Level: | Departmental Progress: |
| :---: | :---: |
| Level I: The department assessment processes have been detailed and developed for use by faculty. | Yes X $\qquad$ No $\qquad$ <br> Attach copies of instruments used, instructions for students, time frames for activities, etc. |
| Level II: Data collection has been implemented. | Yes $\quad$ X No $\qquad$ <br> Attach copies of grading rubrics, analysis of test questions and overall findings. |
| Level III: Faculty, instructional leaders, and deans have analyzed the data. | Yes X $\qquad$ $\qquad$ <br> Attach copies of conclusions reached by the assessment team. |
| Level IV: Faculty, instructional leaders, and deans have used the data to improve student academic achievement. | Yes $\qquad$ No X - not this term Attach highlights related to curriculum and/or assessment changes which were implemented through this process such as revision of study guides, exams, changes in grading rubrics. |
| Level V: Data has been used to improve the assessment process. | Yes $\qquad$ No X - yet (see reccomendations $\qquad$ Attach highlights related to improvements and/or streamlining the assessment process. |

Assessment Chair's Signature

Dean's Signature

Date

Date

## Social and Behavioral Sciences report on Assessment of Student Learning Outcomes March 2009

In recent years the Social and Behavioral Sciences (SBS) department has regularly focused on assessing students who had completed 9 or more credit hours of SBS general education coursework. The working hypothesis has been that students who had completed their SBS general education coursework should be competent research paper writer. This remains the working hypothesis for the current assessment cycle.

Beyond scoring a sample of papers, past efforts have focused on refining the departmental scoring rubric and attempts to develop a common understanding of the elements of the rubric. The rubric was significantly revised as a result of the 2006 assessment cycle.

Our assessment methodology for the current year uses student term paper scores, as graded by the instructor according to the departmental rubric, and the student's academic history (as found in student transcripts). Thus, the student's scores can be associated with elements of that student's previous coursework.

Scores on the rubric adopted by the SBS Department were obtained from eleven full-time and adjunct faculty for over 300 term papers submitted during the Fall 2008 semester. For various reasons some papers are not included in the analysis. The sample analyzed consists of 298 student papers. Because about 30 students submitted term papers in more than one class, the unit of analysis is the "paper" and these 30 students are included twice in the analysis (once for each course).

Table 1 shows the distribution of the papers by course. Nearly half ( $46 \%$ ) the papers are from psychology courses and about a quarter ( $24 \%$ ) are from courses in anthropology. Part of the reason for the large proportion of anthropology papers is due to NAVIT scheduling.

| TABLE 1 |  |  |
| :--- | ---: | ---: |
| Course | Number of <br> papers | Percentage |
| ANT102 | 71 | 23.8 |
| GEO110 | 8 | 2.7 |
| HIS106 | 14 | 4.7 |
| HIS155 | 6 | 2.0 |
| POS110 | 16 | 5.4 |
| PSY101 | 75 | 25.2 |
| PSY240 | 61 | 20.5 |
| SOC120 | 34 | 11.4 |
| SOC130 | 10 | 3.4 |
| SOC225 | 3 | 1.0 |


| Total | 298 | 100.0 |
| :--- | ---: | ---: |

For this assessment cycle we decided not to do a group reading. Rather, we use the scores actually assigned to the paper by the instructor in the course. The rubric consists of five components: ideas, coherence, support, style, and mechanics. The first three components (comprising $80 \%$ of the total score) are weighted more heavily than the latter two. Because the components are highly correlated, the analysis will focus primarily on the total score rather than on the individual components. (Table A, at the end of the report, provides the matrix of correlations).

Student records were checked to gather the following information:

- the total number of previous general education hours successfully completed (with a grade of C or better) by each student [but counting only one math course];
- the total number of previous social and behavioral science general education hours successfully (with a grade of C or better) completed by each student;
- the student's total number earned credit hour; and
- the student's cumulative grade point average.

Most of the missing information that led to deletion of term papers from the analysis is due to the inability to access the records of a small number of students because of registration holds or other limitations on accessing the data.

In past assessment cycles, SBS faculty have each read a random sample of papers submitted by students who had completed 9 or more credits of general education social and behavioral science courses. ${ }^{1}$ These papers came from across all SBS general education classes. Papers were read to compare faculty ratings of each paper. In both 2006 and 2008, 13 papers were read. There was some interest in developing a common understanding of scoring rubrics and practices. The average ratings for papers from both years are displayed in Table 2. ${ }^{2}$ As noted in each report, there was some variation in the ratings assigned by different faculty readers.

| TABLE 2 | Average | $\frac{\mathrm{A}}{[90+]}$ | $\begin{aligned} & \frac{\mathrm{B}}{[80-89]} \end{aligned}$ | $\frac{\mathrm{C}}{[70-79]}$ | $\begin{aligned} & \frac{\mathrm{D}}{[60-69]} \end{aligned}$ | $\begin{aligned} & \frac{\mathrm{F}}{[<60]} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2006 | 1.46 | 2 | 1 | 3 | 2 | 5 |
| 2008 | 2.38 [79] | 0 | 8 | 3 | 1 | 1 |

Variability among faculty members continues. Table 3 and Figure 1 display the average total term paper rubric score for each faculty member submitting scores for their courses. Of the 11 faculty, four are full-time and seven are adjunct. The second column in

[^9]Table 3 shows whether a small ( $<20$ ) or large ( $>25$ ) number of papers were submitted. The last two columns show the minimum and maximum scores.

There is similar variability on each of the five components of the rubric.
However, the relative rank of faculty is not the same across the scales.

| TABLE 3 <br> Faculty Member | N | Mean | Std. Deviation | Minimum | Maximum |
| :--- | ---: | ---: | ---: | ---: | ---: |
| $\mathbf{9}$ | $<20$ | 90.643 | 4.9085 | 80.0 | 95.0 |
| $\mathbf{5}$ | $>25$ | 89.308 | 9.2207 | 65.0 | 100.0 |
| $\mathbf{2}$ | $<20$ | 87.450 | 9.0232 | 58.0 | 97.0 |
| $\mathbf{1 0}$ | $>25$ | 87.185 | 12.3046 | 55.0 | 100.0 |
| $\mathbf{1 1}$ | $<20$ | 86.375 | 9.5629 | 69.0 | 100.0 |
| $\mathbf{4}$ | $<20$ | 84.000 | 11.1975 | 60.0 | 100.0 |
| $\mathbf{3}$ | $<20$ | 83.714 | 13.0858 | 60.0 | 97.0 |
| $\mathbf{8}$ | $<25$ | 82.545 | 13.7409 | 30.0 | 97.0 |
| $\mathbf{1}$ | $<20$ | 80.500 | 8.3735 | 64.0 | 93.0 |
| $\mathbf{6}$ | $>25$ | 75.676 | 12.9725 | 48.0 | 98.0 |
| $\mathbf{7}$ | $>25$ | 75.268 | 10.8239 | 54.0 | 98.0 |
| Total | 298 | 83.844 | 12.3260 | 30.0 | 100.0 |



Figure 1: Plot of the Means

Table 4 shows the grade distribution of term papers as originally scored by the instructor in the 2008 report and for the Fall 2008 sample analyzed here.

| TABLE 4 | Average | $\frac{\mathrm{A}}{[90+]}$ | $\frac{\mathrm{B}}{[80-89]}$ | $\frac{\mathrm{C}}{[70-79]}$ | $\frac{\mathrm{D}}{[60-69]}$ | $\frac{\mathrm{F}}{[<60]}$ | $\underline{\text { Total }}$ |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 2008 | 84.15 | 4 | 5 | 3 | 1 | 0 | 13 |
| 2009 | 83.84 | 127 | 84 | 49 | 24 | 14 | 298 |
| $2009(\%)$ |  | 42.6 | 28.2 | 16.4 | 8.1 | 4.7 |  |

Although the 2006-08 sample is small, the distribution and mean of scores is quite similar to those assigned by faculty in Fall 2008.

## RELATIONSHIP of RUBRIC SCORES to Previous General Education

In order to control for faculty variability, a Z-score for each student according faculty rater was calculated. In essence, this allows one to equate the relative score of a student paper graded by professor $\# 5$ with the relative score of a student paper graded by professor \#6. In essence, this means that a low rubric score by the harshest grader with rise and a high score by the most generous grader will fall.

For ease of comparing grades originally award and student's relative ranking, four categories of $z$ scores were created as shown in Tables 5 and 6 . Table 5 distributes student scores across four unequal categories.

|  |  |  |
| :--- | ---: | ---: |
| Table 5 | Frequency | Percent |
| Very low scores | 47 | 15.8 |
| Medium low scores | 98 | 32.9 |
| Medium high scores | 108 | 36.2 |
| Very high scores | 45 | 15.1 |
| TOTAL | 298 | 100.0 |

Table 6 indicates that there is a correspondence between the original grade and the student's relative rank. Only four students with very low z scores received a grade as high as a B and only 3 students with very high scores received as low as a B.

| TABLE 6 |  | Z score category |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \mathrm{Z}=\text { lowest } \\ \text { to }-.998 \\ \hline \end{gathered}$ | $\mathrm{z}=-.99$ to . 20 | $\mathrm{z}=.2$ to . 94 | $\begin{gathered} \mathrm{z}=.95 \text { to } \\ \text { highest } \\ \hline \end{gathered}$ |  |
|  |  | Very low scores | Medium low scores | Medium high scores | Very high scores |  |
| Total by Category | F <60 | 14 | 0 | 0 | 0 | 14 |
|  | D: 60-69 | 13 | 11 | 0 | 0 | 24 |
|  | C: 70-79 | 16 | 31 | 2 | 0 | 49 |
|  | B: 80-89 | 4 | 52 | 25 | 3 | 84 |
|  | A 90+ | 0 | 4 | 81 | 42 | 127 |
| Total |  | 47 | 98 | 108 | 45 | 298 |

With this in mind we can turn to working hypothesis and some other related hypotheses. First, we examine the relationship of the impact of previous coursework in social science general education courses on the total term paper score.

Table 7 shows that over half the papers were from students who had never previously taken an SBS general education class. A fifth had successfully completed two SBS general education classes and another $9 \%$ had taken three or more such courses.

|  |  |  |  |  |
| :---: | :--- | ---: | ---: | ---: |
| Previous SBS coursework |  |  |  |  |
| TABLE 7 |  | Frequency | Percent | Cumulative <br> Percent |
| Valid | 0 | 158 | 53.0 | 53.0 |
|  | 3 | 52 | 17.4 | 70.5 |
|  | 6 | 61 | 20.5 | 90.9 |
|  | 9 | 13 | 4.4 | 95.3 |
|  | 12 | 8 | 2.7 | 98.0 |
|  | 15 | 2 | .7 | 98.7 |
|  | 18 | 1 | .3 | 99.0 |
|  | 21 | 3 | 1.0 | 100.0 |
|  | Total | 298 | 100.0 |  |

The cross tabulation of previous SBS general education credits and student scores on the rubric shows that having one previous course correlates with improved scores but beyond that the average score declines (Table 8 and Figure 2). Close inspection of Table 8 reveals some odd patterns. For example, those with six credit hours have the lowest percentage of both "very low" and "very high" scoring students. The highest percentages of very high scoring students are those with only one previous SBS general education course. Those with 9 or more previous credits have the next highest percentage but also have the lowest percentage of "medium high scores."

|  | TABLE 8 |  |  | Z score category |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\begin{aligned} & \mathrm{Z}=\text { lowest } \\ & \text { to }-.998 \end{aligned}$ | $\begin{gathered} z=-.99 \text { to } \\ .20 \end{gathered}$ | $\begin{gathered} z=.2 \text { to } \\ .94 \end{gathered}$ | $\begin{gathered} \mathrm{z}=.95 \text { to } \\ \text { highest } \end{gathered}$ |  |
|  | SBS <br> previous <br> courses <br> by category | no previous SBS courses | Count | 31 | 50 | 58 | 19 | 158 |
|  |  |  |  | 19.6\% | 31.6\% | 36.7\% | 12.0\% | 100.0\% |
|  |  | 3 credits | Count | 6 | 13 | 20 | 13 | 52 |
|  |  |  |  | 11.5\% | 25.0\% | 38.5\% | 25.0\% | 100.0\% |
|  |  | 6 credits | Count | 6 | 25 | 23 | 7 | 61 |
|  |  |  |  | 9.8\% | 41.0\% | 37.7\% | 11.5\% | 100.0\% |
|  |  | 9 or more credits | Count | 4 | 10 | 7 | 6 | 27 |
|  |  |  |  | 14.8\% | 37.0\% | 25.9\% | 22.2\% | 100.0\% |
|  | Total | Count |  | 47 | 98 | 108 | 45 | 298 |
|  |  | percent |  | 15.8\% | 32.9\% | 36.2\% | 15.1\% | 100.0\% |
| Pearson Chi-Square $=12.579 \quad \mathrm{df}=9 \quad \mathrm{p}=.183$ |  |  |  |  |  |  |  |  |



Figure 2: Student Scores by Previous SBS General Education Hours
These data also relate to a question raised in the 2008 assessment report by Dr. Lawson concerning students who had little experience in SBS general education courses. ${ }^{3}$

## General Education generally

Although there is no statistically significant relationship between term paper scores and the number of SBS general education courses completed successfully by students in previous semesters, the relationship between term paper scores and the previous general education hours is statistical significant (bivariate correlation ( $\mathrm{r}=.153$, p $=.008$ )) and the shape of the distribution across categories is of some interest (Table 9; Figure 3). By contrast, the total hours completed does not reached significance when correlated with student scores on the rubric (data not shown).


Figure 3: Student Z scores by Previous General Education

[^10]| TABLE 9: Student Z scores by Previous General Education |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Z score category |  |  |  | Total |
|  |  |  | $\begin{gathered} \mathrm{Z}=\text { lowest to - } \\ .998 \end{gathered}$ | $\mathrm{z}=. .99$ to . 20 | $\mathrm{z}=.2$ to .94 | $\begin{gathered} \mathrm{z}=.95 \text { to } \\ \text { highest } \end{gathered}$ |  |
| Previous GenED_ category | None | Count | 18 | 29 | 36 | 6 | 89 |
|  |  |  | 20.2\% | 32.6\% | 40.4\% | 6.7\% | 100.0\% |
|  | 3-10 | Count | 17 | 25 | 29 | 12 | 83 |
|  |  |  | 20.5\% | 30.1\% | 34.9\% | 14.5\% | 100.0\% |
|  | 11-19 | Count | 8 | 16 | 20 | 14 | 58 |
|  |  |  | 13.8\% | 27.6\% | 34.5\% | 24.1\% | 100.0\% |
|  | 20-25 | Count | 3 | 17 | 14 | 6 | 40 |
|  |  |  | 7.5\% | 42.5\% | 35.0\% | 15.0\% | 100.0\% |
|  | 26-50 | Count | 1 | 11 | 9 | 7 | 28 |
|  |  |  | 3.6\% | 39.3\% | $32.1 \%$ | 25.0\% | 100.0\% |
| Total |  | Count | 47 | 98 | 108 | 45 | 298 |
|  |  |  | 15.8\% | 32.9\% | 36.2\% | 15.1\% | 100.0\% |

Pearson Chi-Square=18.737(a) $\quad \mathrm{df}=12 \quad \mathrm{p}=.095$

## Conclusions and Future Questions

The above data were reviewed by Social and Behavioral Science Department during a February 13, 2009 departmental meeting. Two basic issues were discussed at some length - (1) variability in the application of the departmental scoring rubric and (2) what the scores tell us about how students develop critical writing skills.

The data from the nearly 300 term papers scored using the standard departmental rubric indicate some variation among faculty in the application of the rubric to grading course papers. Various reasons for differences discussed. One dilemma is that the rubric is being used for two somewhat different purposes - not only does rubric serve as an assessment tool but it also provides the student with feedback on the paper and contributes to the overall course grade. The relative contribution of term paper to the final course grade was one factor contributing to differences. For example, it appears that the two faculty with the lowest average scores on the rubric often adjust final course grades slightly upwards, whereas some other faculty may not. To attempt a greater degree of consistency in application of the rubric, each faculty member will submit ungraded a couple "A" and "C" papers to be scored and commented on by all. These may be used as model papers that students may access (see Recommendations section).

The data from the Fall 2008 semester show no overall significant relationship between the number of previous hours of social and behavioral science general education courses and student term paper scores. By contrast, there is a statistically significant relationship between the number of all general education courses previously completed and the student's score on the term paper. As a result of the Fall 2008 results, the department decided to repeat the analysis of term papers for the Spring 2009 semester. A closer
inspection of the sequencing of social behavioral science and other general education courses might help understand the results.

The departmental faculty concluded that we could explore some additional assessment measures. For example, we could potentially add to our analysis of term paper scores one or more of the following embedded items for assessment purposes

1. a pretest/posttest component;
2. a shorter critical writing assignment;
3. a standard final examination essay question that is designed to tap a student's critical inquiry skills in the social and behavioral sciences.

## Recommendations:

1. As a result of the departmental discussion, faculty agreed to submit ungraded a couple "A" and "C" papers to be scored and commented on by all. These may be used as model papers that students may access.
For these papers faculty will collectively construct comments that will indicate strengths and weaknesses of the papers. These papers, with comments, can be posted on a departmental website or on JICS for students to refer to as concrete models of what is expected for an A and a C paper.
2. Faculty will communicate more frequently to reach greater consistency on the use of the scoring rubric.
3. The department will explore additional different assessment possibilities while continuing to analyze term paper results scored with the rubric.

Additional Data Tables
Table A: Bivariate Correlations among the sub-components of the Rubric

|  |  | Ideas | Coherence | Support | Style | Mechanics | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ideas | Pearson Correlation | 1 | . $605{ }^{* *}$ ) | .488(**) | . $330{ }^{* *)}$ | .258(**) | .741(**) |
|  | Sig. (2-tailed) |  | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 296 | 295 | 294 | 295 | 295 | 296 |
| Coherence | Pearson Correlation | .605(**) | 1 | .586(**) | .552(**) | .466(**) | .854(**) |
|  | Sig. (2-tailed) | . 000 |  | . 000 | . 000 | . 000 | . 000 |
|  | N | 295 | 295 | 294 | 295 | 294 | 295 |
| Support | Pearson Correlation | .488(**) | .586(**) | 1 | .389(**) | .425(**) | .824(**) |
|  | Sig. (2-tailed) | . 000 | . 000 |  | . 000 | . 000 | . 000 |
|  | N | 294 | 294 | 294 | 294 | 293 | 294 |
| Style | Pearson Correlation | .330(**) | .552(**) | .389(**) | 1 | .602(**) | .638(**) |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 |  | . 000 | . 000 |
|  | N | 295 | 295 | 294 | 295 | 294 | 295 |
| Mechanics | Pearson Correlation | .258(**) | .466(**) | .425(**) | .602(**) | 1 | .638(**) |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 000 |  | . 000 |
|  | N | 295 | 294 | 293 | 294 | 295 | 295 |

** Correlation is significant at the 0.01 level (2-tailed).
Table B: Bivariate Correlations between Student scores on the Rubric and selected educational background variables.

| Bivariate Correlations |  | Previous GENED | GenED inFall | Previous SBS | Total Hrs Earned | GPA |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Previous General Education Credit Hours | Pearson Correlation | 1 | . 029 | .788(**) | .651(**) | .195(**) |
|  | Sig. (2-tailed) |  | . 621 | . 000 | . 000 | . 001 |
|  | N | 298 | 288 | 298 | 285 | 284 |
| General Education Hours during the current semester | Pearson Correlation | . 029 | 1 | . 036 | . 041 | .145(*) |
|  | Sig. (2-tailed) | . 621 |  | . 545 | . 493 | . 015 |
|  | N | 288 | 288 | 288 | 278 | 277 |
| Previous SBS Hours | Pearson Correlation | .788(**) | . 036 | 1 | .463(**) | . 114 |
|  | Sig. (2-tailed) | . 000 | . 545 |  | . 000 | . 055 |
|  | N | 298 | 288 | 298 | 285 | 284 |
| Total Hours Earned at NPC | Pearson Correlation | .651(**) | . 041 | .463(**) | 1 | .245(**) |
|  | Sig. (2-tailed) | . 000 | . 493 | . 000 |  | . 000 |
|  | N | 285 | 278 | 285 | 285 | 284 |
| GPA | Pearson Correlation | .195(**) | .145(*) | . 114 | .245(**) | 1 |
|  | Sig. (2-tailed) | . 001 | . 015 | . 055 | . 000 |  |
|  | N | 284 | 277 | 284 | 284 | 284 |
| Student Z scores | Pearson Correlation | .153(**) | .150(*) | . 095 | . 083 | .394(**) |
|  | Sig. (2-tailed) | . 008 | . 011 | . 101 | . 164 | . 000 |
|  | N | 298 | 288 | 298 | 285 | 284 |

${ }^{\star *}$ Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).

## ASSESSMENT OF STUDENT ACADEMIC ACHIEVEMENT REPORT 2009

## DEPARTMENT: WACH

MISSION: (Circle One) General Education, Transfer Preparation, Employability, Developmental Education, Customized Education (Economic Development), or Personal Interest.

There are currently five levels of assessment that are possible within each department. These levels are related to development of the department assessment data gathering techniques and use of the information to fine-tune courses as necessary.

## Department Activity Level Checklist

| Activity Level: | Departmental Progress: |
| :---: | :---: |
| Level I: The department assessment processes have been detailed and developed for use by faculty. | Yes X $\qquad$ No $\qquad$ <br> Attach copies of instruments used, instructions for students, time frames for activities, etc. |
| Level II: Data collection has been implemented. | $\qquad$ X No <br> Attach copies of grading rubrics, analysis of test questions and overall findings. |
| Level III: Faculty, instructional leaders, and deans have analyzed the data. | Yes X $\qquad$ No $\qquad$ <br> Attach copies of conclusions reached by the assessment team. |
| Level IV: Faculty, instructional leaders, and deans have used the data to improve student academic achievement. | Yes $\qquad$ No X - not this term Attach highlights related to curriculum and/or assessment changes which were implemented through this process such as revision of study guides, exams, changes in grading rubrics. |
| Level V: Data has been used to improve the assessment process. | Yes $\qquad$ No X $\qquad$ <br> Attach highlights related to improvements and/or streamlining the assessment process. |

Assessment Chair's Signature

Dean's Signature

Date

Date

# WACH Department Student Assessment Report March 2009 

## Introduction

The Welding, Automotive, Construction and Heavy equipment departments (WACH) developed the following WACH Program/Discipline Assessment Plan.

Envisioning the type of graduates instructors felt would be well prepared to enter the workplace five areas of focus were deemed critical for student development- These area's are:

1. Safety trained and safety conscious
2. Positive attitude and good self esteem
3. Sound workplace ethics
4. Professional grade skills
5. Employability skills

The process by which these areas were developed started in the December 2008 meeting with the advisory committees of each department. This meeting identified employee attributes desired by potential employers which focused primarily on work readiness of the student. Then in January 2009 the department personnel met and pinpointed the five most critical points brought up in the advisory meetings which were common to all departments and chose those critical points as the focus areas of this assessment.
Student learning outcomes of these areas are taught continually and measured incrementally by the WACH programs at Northland Pioneer College. A set timeline for incremental assessment of each focus area is as follows:

| Phase | Year | Focus Area |
| :---: | :--- | :--- |
| 1 | 2009 | Safety trained and safety conscious |
| 2 | 2010 | Positive attitude and good self esteem |
| 3 | 2011 | Sound workplace ethics |
| 4 | 2012 | Professional grade skills |
| 5 | 2013 | Employability skills |
|  |  |  |

Phase One - Safety trained and safety conscious

Instructors Goals
Phase One concentrated on effectively instructing students in all areas of trade safety wherein, students would maintain a safety consciousness while operating within their chosen trades.
To ensure instructors delivered necessary training the following goals were set for each student:

| Goal | Completed Training \& Assessments |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Department | WLD | ATO | BOC | HQO |
| Successfully passed the program safety exam <br> with a score of $90 \%$ or higher | Yes | Yes | Yes | Yes |
| Participated in a Personal Safety Evaluation | Yes | Yes | No | Yes |
| An Instructor and/or peer observation report <br> on their personal safety practices | Yes | Yes | No | Yes |
| Reported personal accidents during the <br> semester | Yes | Yes | Yes | Yes |
| Shown attendance at weekly safety meetings | Yes | Yes | No | Yes |

## Instruction Assessment Findings

The following conclusions can be made from the above chart:

- All students passed the Safety Exam with a score of $90 \%$ or higher in accordance with mandated industry requirements. (Records on file in each lab, example shown in Appendix A)
- Most students (except BOC students) participated in the voluntary Personal Safety Evaluation (refer to Appendix B). Currently the BOC department is re-organizing and have not yet completed the evaluation.
- Of the three programs (ATO,HQO, WLD) $70 \%$ of the students completed the Instructor and peer observation report on their personal safety practices. It is anticipated that participation percentages will increase because the personal safety evaluation will be readily available to students throughout the full year next school year.
- Personal accidents were reported to instructors within each discipline.
- All students in 3 departments participated in weekly safety meetings. (Example shown in Appendix C) BOC will participate after re-organization.


## Student Learning

In completing the Voluntary Personal Safety evaluation, instructors hoped to identify the following:

1. Whether the student effectively uses personal protective equipment on the job. True/False questions 1-10
2. The level of learned safety behavior of students towards safety practices.
Choice questions 1-5 Always/Often/Seldom/Never
3. Whether each student reports each accident incurred.

The following statistics represent the answers to each question listed below: 174 of 247 students ( $70 \%$ ) completed the evaluation. These numbers are represented in two HQO labs, two ATO labs and eight WLD labs.

| Question <br> Personal Protective Equipment |  | Answered <br> False |
| :---: | :--- | :---: |
| 1 | I always wear a hardhat when required to work or lab | $3 \%$ |
| 2 | I always wear safety glasses when require to work or lab | $11 \%$ |
| 3 | I always wear sturdy work boots when required to work or lab | $7.4 \%$ |
| 4 | I always wear ear plugs when required to work or lab | $32 \%$ |
| 5 | I always wear seat belts in vehicles | $27 \%$ |
| 6 | I always wear protective gloves when required to work or lab | $12 \%$ |
| 7 | I always wear appropriate pants and shirts or jackets when <br> required | $7.1 \%$ |
| 8 | I always wear respirators when required at work or lab | $12 \%$ |
| 9 | I always wear welding goggles or masks when required at work or <br> lab | $9 \%$ |
| 10 | I know my safety responsibilities in the work place | $0 \%$ |


| Question <br> Safety is a learned behavior |  | Answered <br> Seldom/Never |
| :--- | :--- | :---: |
| 1 | I conduct a safety check of my work environment prior to <br> starting work. | $22 \%$ |
| 2 | I notify my instructor or foreman of any recognized hazard I <br> see. | $20 \%$ |


| 3 | I follow up on corrections needed to make the job site safe. | $13 \%$ |
| :---: | :--- | :---: |
| 4 | I attend and participate in regular safety meetings. | $7 \%$ |
| 5 | I report all accidents to my instructor or foreman. | $9 \%$ |

Accidents
Admitted accidents in survey 52 of $174=29 \%$
Reported accidents through campus/center managers __* $\qquad$
*(At this time the data is still being collected through the center managers, but it is expected that a significantly lower number of accidents are reported than were admitted in the evaluation.) This may be due to a couple of factors, \#1 was the term "accident" explained sufficiently to each student prior to the evaluation. \#2 is there a need for more training on how and when to report an accident per NPC procedure.

## Summary

The completion of the safety exams ensured each student passed with a score of $90 \%$ or higher. Some students needed two opportunities to retest in order to meet the minimum score by industry standards.

Analyzing the data from the voluntary personal safety evaluation revealed, that a significant number of students do not wear ear plugs or seat belts when required. Instructors should make note of this and focus more attention on these two details.

During the personal safety evaluation each student was encouraged to discuss the perceived safety deficiencies either in their use of personal protective equipment or the questions on safety as a learned behavior.

Many constructive comments were recorded on the evaluation sheets which indicate that through dialogue a better understanding of the purpose of safety rules takes place. Promoting improved safety attitudes, validating the style of learning for these tactile, visual, audio students.

Instructors should continue to inform students of the personal issues relating to safety violations ranging from personal injury to financial repercussions.

Finally the difference from the reported accidents (through the campus/center managers) and the admitted accidents (from the personal safety evaluation) indicates that more training needs to occur to make the student aware of their responsibilities to report all accidents to their instructor/supervisor.

The personal safety evaluation data has been analyzed by all WACH department labs and this report is the collective sum of each lab. Instructors will receive an analysis of their respective lab evaluation results for review.
Appendix A. Safety meeting minutes of 2/18/09 Show Low Weld Shop

## Safety Meeting Topics (Bilingual)

## Wear Your Seatbelt

Thousands of people, apparently believing themselves immune to the laws of physics, die each day as a result of vehicle accidents because they were not wearing seatbelts. According to the laws of physics, if a vehicle is traveling at 30 miles per hour, its contents and passengers are also moving at 30 miles per hour. The vehicle's sudden stop at 30 miles per hour can mean the difference of life or death to the passengers wearing seatbelts.

People are a vehicle's most valuable content and seatbelts keep people in place. In a crash, unbelted passengers will fly toward the point of impact, colliding with anything in their path, like dashboards, windshield or steering wheels with several pounds of moving force. While it's dangerous to smash into a dashboard or windshield, it can be deadly to be "thrown clear." Thrown clear of what? Telephone poles, trees, or oncoming traffic? Thrown through what? The windshield or door? Airborne objects maintain momentum as they sail, without the option of where or how they land. In a collision, passengers launched from a vehicle are 25 times more likely to die.

In a vehicle accident, the safest place to be is inside the vehicle, attached to the vehicle's seat. It's the seatbelt that keeps passengers in place. In a collision, the one part of the vehicle that stays reasonable intact, no matter how battered its outsides might be, is the vehicle's seats.

For high speeds, nighttime driving, and bad weather many passengers do buckle up, but the fact is that most fatalities occur in dry, sunny weather, at speeds under 40 miles per hour and within 25 miles of work or home. Perhaps you are a safe driver in control of your vehicle, but there are a lot of other drivers not in control of their vehicles, drivers who've drunk too much, not had enough sleep, didn't see the light change. You can't control them. Seatbelts are your best protection against those drivers. In California, wearing seatbelts is the law. Buckle up and protect yourself so you don't become another statistic in the accident and fatality records.

The above evaluations and/or recommendations are for general guidance only and should not be relied upon for legal compliance purposes. They are based solely on the information provided to us and relate only to those conditions specifically discussed. We do not make any warranty, expressed or implied, that your workplace is safe or healthful or that it complies with all laws, regulations or standards.

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Appendix B. Personal Safety Evaluation

| Name/Date |
| :---: |

Department and Class time
(Ex. WLD Tuesday 6-10)
ATO,BOC,HQO,WLD

## Personal Protective Equipment

T=True/F=False/NA=Not applicable

1. T/F/NA I always wear a hardhat when required at work or lab.
2. T/F/NA I always wear safety glasses when required at work or lab.
3. T/F/NA I always wear sturdy work boots when required at work or lab.
4. T/F/NA I always wear ear plugs when required at work or lab.
5. T/F/NA I always wear seat belts in vehicles (private or business)
6. T/F/NA I always wear protective gloves when required at work or lab.
7. T/F/NA I always wear appropriate pants and shirts or jackets when required.
8. T/F/NA I always wear respirators when required at work or lab.
9. T/F/NA I always wear welding goggles or masks when required at work or lab.
10.T/F/NA I know my safety responsibilities in the work place

## Safety is a learned behavior

A=Always $/ \mathrm{O}=$ Often $/ \mathrm{S}=$ Sometimes $/ \mathrm{N}=\mathrm{Never}$

1. $\mathrm{A} / \mathrm{O} / \mathrm{S} / \mathrm{N}$ I conduct a safety check of my work environment prior to starting work.
2. A/O/S/N I notify my instructor or foreman of any recognized hazard I see.
3. A/O/S/N I follow up on corrections needed to make the job site safe.
4. A/O/S/N I attend and participate in regular safety meetings.
5. A/O/S/N I report all accidents to my instructor or foreman.

## Verification

Have an instructor, lab aide or student peer discuss your answers to the above questions.
I have had $\qquad$ accidents this semester.
Note any areas of improvement as discussed with your verifier.

Name of Verifier
Date $\qquad$
Appendix C. Basic Safety Test 25 multiple choice questions


[^0]:    Each assessment report was read by two members of the Assessment of Student Knowledge (ASK) subcommittee of the Instructional Council (Table 1). In addition, copies

[^1]:    ${ }^{1}$ There are five levels:
    Level I: The department assessment processes have been detailed and developed for use by faculty. Level II: Data collection has been implemented.
    Level III: Faculty, instructional leaders, and deans have analyzed the data.
    Level IV: Faculty, instructional leaders, and deans have used the data to improve student academic achievement.
    Level V: Data has been used to improve the assessment process.

[^2]:    ${ }^{1}$ No report - program suspended

[^3]:    ${ }^{1}$ An inquiry at the site will yield over 80 "records" because some courses satisfy more than a single general education requirement (e.g. ANT 102 is listed under social and behavioral sciences and under global awareness) and some hcourses that are no longer general education courses are archived at this location. By comparison, Mohave CC includes 64 and Coconino CC (offers the next smallest number of general education classes with 228). Maricopa lists the most, 922 . A few courses have not yet been entered into this statewide database.
    ${ }^{2}$ For example, the 1977-78 catalog contains the following typical entries: "All Psychology courses numbered 120 and above" and "All Biology courses numbered 100 and above."

[^4]:    ${ }^{3}$ SEE Minutes of the GEATF Meeting 11/17/06
    ${ }^{4}$ Adopted by Instructional Council December 12, 2008

[^5]:    ${ }^{5}$ The first version of the project submission continued, stating that "Additional components of general education will be selected and assessed in future assessment cycles. In order to assess modes of instruction we will compare outcomes in general education courses across instructional modalities. This can be an analytic addendum to the overall assessment of general education and will be initiated in the 2008-2009 academic year. The results of the assessment will encourage faculty to create or revision of assignments that better foster critical thinking and other general education outcomes."

[^6]:    ${ }^{6}$ The relevant portion of that monitoring plan stated noted that it was necessary to
    ... work with faculty to develop embedded general education exercises [learning objects] for classes. Faculty will be involved in the cycle of days devoted to assessment (Reading-Dialog-Followup). Progress can be measured by:
    (1) the level of faculty participation
    (2) develop venues for faculty feedback (surveys and website postings)
    (3) development and implementation of measurement instruments
    (4) use data to tailor assignments designed to promote the general education outcomes and improve student learning. We will also assess whether or not new course materials do, in fact, improve student learning of general education outcomes. ....

[^7]:    ${ }^{7}$ The sample analyzed consists of 298 student papers. Because about 30 students submitted term papers in more than one class, the unit of analysis is the "paper" and these 30 students are included twice in the analysis (once for each course).
    ${ }^{8}$ This allows one to equate the relative score of a student paper graded by professor \#5 with the relative score of a student paper graded by professor \#6. In essence, this means that a low rubric score by the harshest grader with rise and a high score by the most generous grader will fall.

[^8]:    ${ }^{9}$ Assuming the appropriate distribution of the general education courses taken.
    ${ }^{10}$ The entire rubric is reproduced in Appendix 2.
    ${ }^{11}$ The single exception is for use of supporting ideas among 3-10 credit hour earners.
    ${ }^{12}$ With the exception of coherence and organization

[^9]:    ${ }^{1}$ However, in 2008, the report notes:
    The sample papers were from students who had completed at least 9 hrs of GenEd courses, however, next time we would like to look at papers of students who have completed at least 9 hrs of Social \& Behavioral Sciences GenEd classes specifically, instead of any/all GenEd classes.
    ${ }^{2}$ In 2008 the original grade assigned the paper was also provided. The group reading mean score [79.0] was five points lower than the average of the original score [84.2] assigned to the paper (and only 2 of the 13 papers had a higher average score upon group re-grading).

[^10]:    3 "What about the poor scores by qualifiers?" - What can the Dept do to assist and/or prevent from occurring, those students who have passed at least 9 hrs of "qualifying" courses, but did not submit a C or better term paper?
    The 2008 report adds - "This question will be better addressed after determining how well students who take more DEPARTMENTAL courses do, instead of assessing students who have taken several GenEd courses that may not have been Departmental courses, since we are attempting to assess our own department, not all GenEd departments."

