

## Assessment of Student Reading Ability

Academic Year of Report: **2011/2012**

Department: **Chemistry**

College: **College of the Sciences**

Assessment of the reading skills of chemistry majors was carried out at the end of winter quarter 2012 in CHEM 382, Physical Chemistry 2, following the CWU College Reading Assessment protocol. CHEM 382 is a required course for the BS in Chemistry and the BS in Chemistry with Biochemistry Specialization. The 21 students in this course were all majoring in chemistry, pursuing either the B.S. in Chemistry or B.S. in Chemistry with Biochemistry Specialization. The students were a mixture of juniors and seniors. Eight of the students had earned an Associate degree from a community college before transferring to CWU; the remaining 13 students either entered CWU as freshmen or transferred to CWU without completing an Associate degree.

Dr. Yingbin Ge, the course instructor, selected the reading sample and administered the reading test. The reading sample was a research grant proposal which was related to course content (see attached). The reading material was at a high difficulty level for the students assessed. Students were asked to read the proposal for one minute. We assessed how many words they were able to read in one minute. Those students who read more than 190 words per minute were considered passing. After the students finished the reading, they were asked to answer specific questions related to the content of the research grant. A rubric was used to assess those responses. The department chair, JoAnn Peters, scored the responses, and tallied the results.

Because of the way that the reading assessment was carried out, it is difficult to separate reading ability from writing ability. Furthermore, the passing rate highly depends on the difficulty level of the reading material.

Rubric Element	Pass Native	Pass Transfer	Non-Pass Native	Non-Pass Transfer
Reading Rate	9/43%	4/19%	4/19%	4/19%
Summary-Details	9/43%	6/29%	4/19%	2/10%
Summary-Discipline Specific Vocabulary	11/52%	6/29%	2/10%	2/10%
Summary-Author's Intent	6/29%	7/33%	7/33%	1/5%

As shown in the table above 13 out of 21 students were able to read more than 190 words per minute. The majority of the students were able to give details about the reading, remembered the discipline specific vocabulary used, and were able to describe the author's intent. Describing the details in the reading presented the greatest challenge to the students. Native students were more successful in

understanding the discipline specific vocabulary, while transfer students were more successful in describing the author's intent.

Given that reading and writing ability are essential for the success of our students, it is unfortunate that our juniors and seniors are not able to perform these tasks better. While these are skills that students build in high school and in general education courses, they clearly need additional work in the context of their chosen discipline. The Chemistry Department Undergraduate Curriculum Committee will recommend to our students to work with the English Department and Writing Center on their written reports. The chemistry instructors will work with students in the areas of content, reasoning, organization, and rhetoric. The Writing Center can hopefully provide students with more intensive help with editing, sentence structure, and grammar. Furthermore, we may need to consult with experts from the English Department and Writing Center to discuss strategies for improving the reading skills of our majors.