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## *ASSESSING LITERACY AT AN AMERICAN-STYLE CAMPUS IN CHINA*

### **Abstract**

In fall 2007, New York Institute of Technology (NYIT) began an overseas American-style undergraduate program in Nanjing, China. The program offers four majors in communication arts, computer science, and electrical and computer engineering. NYIT professors teach all courses in English, and the curriculum mirrors the NYIT programs in the United States. All four programs follow the seven categories (communication, literacy, critical/analytical thinking, interdisciplinary mindset and skills, ethical/moral and civil engagement, global perspective/worldview, process and nature of science and arts) of NYIT's core competency outcomes. Guided by the Collegiate Learning Assessment (CLA) and the New Leadership Alliance for Student Learning and Accountability, I assessed literacy, and tested NYIT's Chinese freshman with standardized questions on reading comprehension and written expression. The goal of the assessment was to determine whether or not the Chinese students admitted into the program adhered to the learning outcomes set forth by NYIT. Based on the results, recommendations were made as to class size, teaching practices, and the future progress of the students. The study wished to answer a key question about the ESL students' language proficiency in order to determine whether or not the students were properly prepared to learn in an environment with English-speaking teachers and an American-style curriculum.

**Keywords:** literacy, assessment, learning outcomes, ESL, overseas programs

### **Bio**

Katyna Johnson, Ph.D., is an Assistant Professor in English at the New York Institute of Technology in Nanjing, China. Over the course of two years, she serves on the NYIT Assessment Committee where she studies student performance and analyzes ESL language proficiency. Her research interests include ESL, globalization, and teaching overseas. In 2011, she combines her research interests to create and hold the Chair of NYIT-China's first international conference, Crossing Borders: Teaching and Learning in a Global Age, a weekend event with over sixty guest speakers and five invited guest speakers, including acclaimed poet Jane Hirshfield.

## **1. INTRODUCTION**

This study is part of a larger university assessment project that investigates various learning outcomes, such as analytic thinking, for the New York Institute of Technology (NYIT) students who attend the dual degree program in Nanjing, China. The university assessment project researches how well students and teachers adhere to specific degree-based and core competency outcomes throughout NYIT's three New York campuses and their global campuses in Vancouver, Amman, Abu Dhabi, and Nanjing. The assessment project monitors whether or not students have mastered the various outcomes, and it offers suggestions to improve general education outcomes throughout departments and universities. Ultimately, it collects and analyzes data in order to improve teaching and learning.

My assessment focused on literacy, one of the seven competency outcomes that make up NYIT's core curriculum outcomes. The students were given a fifteen question exam on reading comprehension and written expression. Current first-year students took the literacy test, and a random sampling of ten tests per class was collected as part of the study. The assessment determined whether or not the Chinese students admitted into the program adhered to the learning outcomes set forth by NYIT. Although the students live in China and are ESL students, they are taught with English-speaking faculty and an American-style curriculum. English literacy was necessary for entrance into the program. However, students were not given a specific language entrance exam for admittance into the program; entrance was based on the national high school exam, the gaokao. So the goal of the assessment was to ascertain and

then monitor the English literacy of NYIT-Nanjing's incoming freshmen because it was viewed as a fundamental and necessary skill for successful completion of the rigorous American-style program.

The study wished to answer a key question about the ESL students' English language proficiency in order to determine whether or not the students were properly prepared to learn in an environment with English-speaking teachers and an American-style curriculum. Many assessment programs focus on student learning based outcomes, and though this will be important for future assessments of English language proficiency progress, the goal of this particular study was to obtain a benchmark of literacy that would gauge how well the students were prepared for their present learning environment. The study recognized the unique circumstances of NYIT's ESL students on an American-style campus in China compared to their New York counterparts, so though a literacy assessment in New York might focus on writing ability or evaluation skills, this study focused on standardized questions on reading comprehension and written expression, essential English language skills that students should have prior to the start of the program they have chosen. Based on the results, recommendations were made as to class size, teaching practices, and placement exams.

### **1.1. New York Institute of Technology, Nanjing Campus**

The students attend a branch of New York Institute of Technology (NYIT) in Nanjing, China. In fall 2007, New York Institute of Technology (NYIT) began an overseas American-style undergraduate program in collaboration with Nanjing University of Posts and Telecommunications (NUPT). NYIT-Nanjing was the first American undergraduate campus in China. The program offers four undergraduate academic degrees in communication arts, business administration, computer science, and electrical/computer engineering. Approximately 1,400 students attend NYIT-Nanjing.

The American-style campus mirrors the teaching practices and curriculum of its New York branches. All courses are taught in English and the students read and complete all assignments in English. The curriculum requires a standard freshmen-level college understanding of English to successfully complete course work and to comprehend and to participate in lectures and discussions. Students must take several core curriculum classes, such as college composition, foundations of inquiry, and philosophy in order to satisfy their academic degrees. At the beginning of the school year, most of the freshmen attend an intense six-week long ESL advanced speaking and listening comprehension course where they practice pronunciation and listening and oral comprehension. Outside of the ESL course offered at the beginning of their freshmen year, the students do not take remedial or ESL language courses. Instead, it is assumed that they are proficient in English and, as a result, can read and comprehend the college-level curriculum and participate in the discussion-based environment.

### **1.2 National College Entrance Examination**

Admission into the program is based on the scores they received from China's National College Entrance Examination (NCEE), or the gaokao. The test is a prerequisite for entrance into undergraduate higher level education programs. Most students take the exam during their senior year of high school. The maximum points vary from year to year and province to province. However, throughout the country there are three mandatory subjects: mathematics, Chinese, and a foreign language, usually English. The students choose from six additional subjects: physics, biology, chemistry, history, geography, and political education. If students fail in their first attempt, many of them repeat their senior year of high school in order to retake the exam. As Jiang notes, "With more than 2500 institutions of higher education and more than 30 million tertiary-level students, China is the largest higher education system in the world in its scale" (2012). In June 2012, more than 9.15 million students took the gaokao (Sudworth, 2012). With a large population and a rising number of students taking the exam in parts of the country, entrance into university is extremely competitive; less than 2% of test takers will be admitted into China's top five universities ("Testing Times," 2012).

### **1.3 Assessment Overview**

Assessment programs focus on the central questions: what do students know and are they learning? The programs recognize the value of a higher education in the 21st century; they focus their projects on making students better learners with the future goal of creating a more competent workforce (*Committing to Quality*, 2012). Unfortunately,

holding a college degree does not mean someone can think critically, reason analytically, and write persuasively. This is why assessment programs commit to the quality and improvement of student learning and of teaching.

There are several noteworthy assessment programs and institutions that aid in gathering and analyzing data. One such program, the Collegiate Learning Assessment (CLA), as part of the Council for Aid to Education (CAE), gathers data from institutions and creates a benchmark level of achievement that allows campuses to compare their results to those of other institutions. This gives institutions a frame of reference so they can gauge the progress of their students to the progress of students at other campuses. The CLA helps institutions “follow a continuous improvement model that positions faculty as central actors in the link between assessment and teaching/learning” (CLA Overview, 2011) NYIT uses both internal and external programs, such as CLA, to gather and analyze data and suggest areas of improvement.

In 2010, NYIT created a new curriculum to help the university achieve its goal to become “a model 21<sup>st</sup> century university” by 2030 (“Core Learning,” n.d.). As part of its goal, the curriculum worldwide adheres to the seven competency outcomes: communication, literacy, critical/analytic thinking, interdisciplinary mindset and skills, ethical/moral and civil engagement, global perspective/worldview, process and nature of science and arts. The learning outcomes focus on both intellectual and practical skills; the ability to apply learning; and social responsibility and global worldview. Annually, faculty at each NYIT institution creates an assessment plan, collects data, and reports on their findings. The assessment committees hope to productively use the assessment to strengthen undergraduate education and help the instructors refine their teaching practices based on the assessment data results.

In Nanjing, all four degree programs follow NYIT’s core competency outcomes, so the literacy test was given to all students who make up the freshmen class. My assessment focused on freshmen because I wanted to test the students’ prior knowledge and language competency in order to ascertain what language skills they possessed and which were lacking when they entered the NYIT program the fall of their first year.

## 2. METHOD

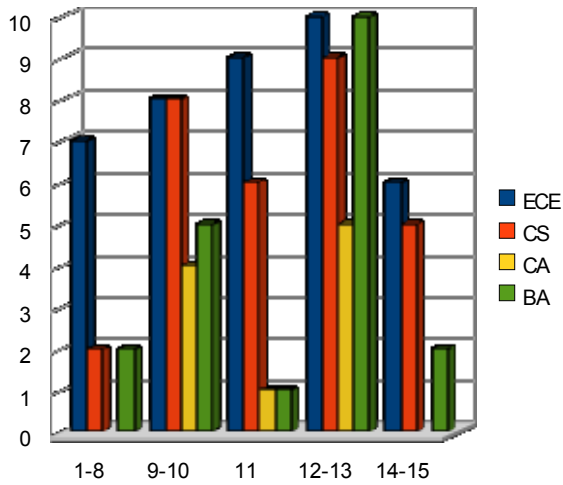
The literacy test was given to the current freshmen, which is made up of approximately three hundred students. The freshmen class consists of ten classes with approximately thirty students each; four classes of Electrical Computer Engineering (ECE), three classes of Computer Science (CS), one class of Communication Arts (CA), and two classes of Business (BA). A random sampling of ten tests per class was collected as part of the study. In total a sample of one hundred tests were collected; forty for ECE, thirty for CS, ten for CA, and twenty for BA. The tests were graded and analyzed by cohort, by major, and by freshmen class.

The fifteen questions tested standard written and reading comprehension. Based on a short excerpt, five questions focused on reading comprehension and tested such things as context and summary. For example, the test asked students to determine the phrase closest to meaning to ones in the passage and to identify key themes from the passage. Ten questions asked students to identify grammatically incorrect parts of a sentence and to fill in the blank to make sentences grammatically correct. These ten sentences tested standardized English grammar, such as verb tense, articles, prepositions, and modifiers.

## 3. RESULTS

Figure 1 below shows the breakdown for each class. Students who correctly answered eight or fewer questions scored within the 55% or below range. Those who answered nine or ten questions correctly fell within the 60% range. Answering eleven questions correctly placed students in the 70% range, twelve to thirteen placed students in the 80% range, and students with fourteen or fifteen correct answers fell with the 90% or above range. The lowest recorded scores were a four (ECE student) and a five (CS student). Three students received a perfect 15 (1 ECE student and 2 BA students).

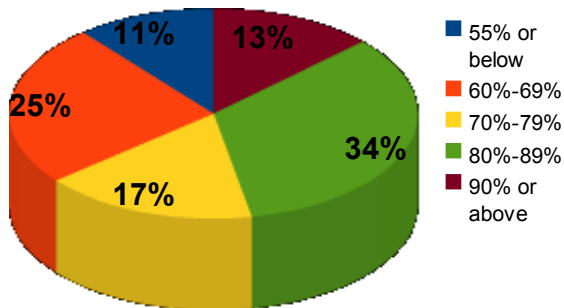
There was no discernible difference between written expression and reading comprehension. Incorrect answers occurred throughout the exam with no greater or lesser frequency between the two components.



**FIGURE 1**

Figure 2 below shows the percent answered correctly for the one hundred student test sample. As figure 2 indicates, 11 of the total students failed the test, 25 fell in the 60% range, 17 fell in the 70% range, 34 fell in the 80% range, and 13 fell in the 90% or above range. About half the students performed average or below and about half the students were above average.

**FIGURE 2  
ALL CLASSES**



The test results were also broken down by major. As figure 3 reveals, for ECE students, 17.5% scored within the 55% percent or below range, 20% within the 60% range, 22.5% within the 70%percent range, 25% within the 80 % percent range, and 15% in the 90%percent or above range. 60% of ECE test takers in this particular sampling scored average or below.

**FIGURE 3  
ECE STUDENTS**

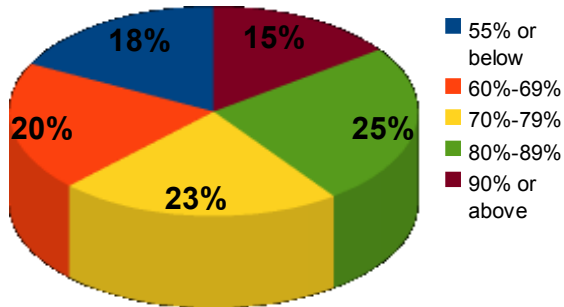


Figure 4 shows the breakdown for CS students. 7% scored within the 55% or below range, 27% within the 60% percent or below range, 20% within the 70% percent range, 30% within the 80% percent range, and 17% within the 90% percent or above range. 54% of CS test takers scored average or below.

**FIGURE 4  
CS STUDENTS**

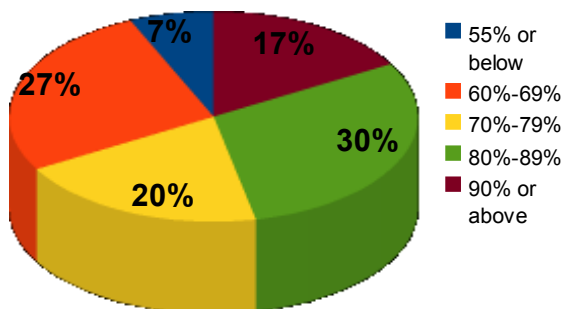


Figure 5 lists the breakdown for the BA students. 10% scored within the 55% percent or below range, 25% within the 60% percent range, 5% within the 70% percent range, 50% within the 80% range, and 10% within the 90% percent or above range. 40% of BA test takers scored average or below.

**FIGURE 5  
BA STUDENTS**

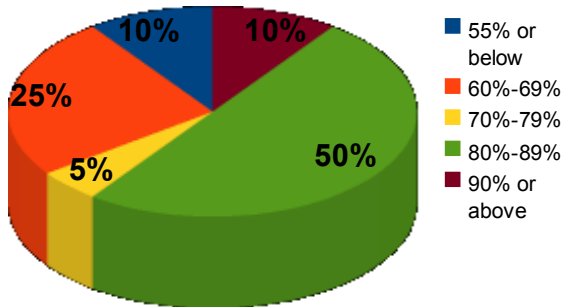
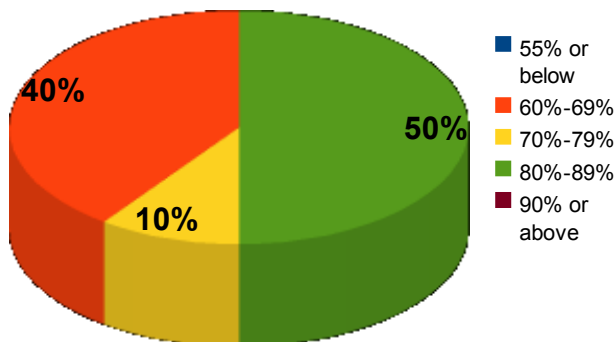


Figure six lists the breakdown for the CA students. 40% scored within the 60% percent range, 10% within the 70% percent range, and 50% within the 80% percent range. 50% of CA test takers scored average or below.

**FIGURE 6  
CA STUDENTS**



Bearing in mind the four majors make up varying sizes of the freshmen class, the BA students scored the most correct answers per group and the ECE students scored the least correct answers per group. Taking all the data together and keeping in mind that the exam tested rudimentary English skills, 36% of the students fell below average, which indicated they do not have the English language skills necessary for successful completion of the rigorous college courses. An additional 17% of students tested average; these students most likely struggle with listening and reading comprehension, and they may have difficulty understanding or completing coursework. The remaining 47% of students seem adequately prepared for the English courses.

Tellingly, several students wrote “corrections” on the exam even though the test simply asked them to circle the incorrect portion of the English sentences. For example, one student changed a grammatically correct portion of the sentence from “digs” to “is digged.” Several changed “overhanging front teeth” to “overhanged.” In another instance, several students correctly circled the portion of the sentence that needed to be changed, but then “corrected” the sentence by writing “foots” instead of “feet.” In another case, a student incorrectly wrote “stream” boiler instead of the already correct answer steam boiler. This same student incorrectly wrote are “frequent” caused instead of the already correct answer, “frequently.” Their incorrect answers revealed an added level of English language deficiencies, especially for those students who happened to circle the correct answer but clearly did not know the correct answer.

#### 4. CONCLUSION AND RECOMMENDATIONS

The primary goal of this study was to determine the students' literacy rate as a way to gauge their readiness and success in the program. As the data indicates, about 40% of the students lack rudimentary English reading and writing skills. The 10% of this group who failed the exam do not have the necessary English language proficiency to be part of this program and should not be pursuing the dual degree that NYIT offers. These students do not have the reading and written comprehension skills necessary for performing at the level that the course demands. The remaining 30% are also not prepared for this program; these students will have difficulty engaging with the course material and classroom lectures. These students would benefit from a more remedial English program with a slower pace, less advanced reading material, and more ESL speaking, writing, and listening exercises, which does not coincide with the curriculum or mission statement of the current program.

Because the students demonstrated such a varied spectrum of English language ability, it might be beneficial to break the students into two levels based on their English proficiency. This way those students who lack the necessary English skills for the current program could remain in the program but at a pace and level that fits with their ability. This would also be beneficial for the students who do have the language skills necessary for success in the program; they will have the chance to participate and practice their English more, and they can move at a faster pace than when in a class with mixed levels of English. In New York, students are required to take a placement exam before they can register for classes. Performance on the placement exam determines what courses students are eligible to take for their major. Requiring students take a specific NYIT placement exam before they begin their academic degrees would help determine what level of courses the students could pursue.

Breaking up the students based on performance on a placement exam could also combat the issue of large class sizes. As ESL students, all students, especially the 40% targeted with poor English literacy skills, could benefit from more one-on-one attention, especially in their English courses. Currently, class size at NYIT-Nanjing ranges from 25-45 students. The student-faculty ratio at NYIT in New York, however, is 16:1 and 66.8 percent of its classes have fewer than 20 students (New York Institute, 2011). The data indicates that a large number of students need the added attention that smaller class sizes could provide. The smaller class size would also allow students the chance to speak more freely and often, thereby practicing their oral language skills. The smaller class size is especially important because an American-style campus entails much more than English-only classes.

American-style campuses put much more emphasis on critical thinking and creativity, skills that are not taught in China. The Chinese teaching practice, in particular with the focus on the gaokao, promotes memorization and rote learning. Mr He, a law professor at Tsinghua University, criticizes the gaokao because "the students are trained exclusively for the studying and answering of test papers. But the majority lacks the skills to join in classroom discussion. Independence of thought is subordinated to the demands of rote learning. The students who emerge from this system often find it difficult to make basic social engagement, let alone intellectual collaboration" ("Testing Times", 2012). All students in the current program struggle with the difference in teaching styles and focus on learning. The smaller class sizes would allow the teachers to address this difference and to create a teaching environment that would give the students the added attention they need. This is especially important for written assignments where students lack the skills to come up with original ideas and have difficulties adjusting their writing to coincide with the skillset the American-style program demands.

The test was given to the freshmen after the regular semester began and after this year's assessment committee formed and began their studies. In the future, the assessment would be more accurate if it was given at the beginning of the intense ESL program that occurs prior to the regular academic semester. This spring the literacy test will be given to the freshmen class as a way to gauge progress and learning.

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