

Satisfaction and Sequencing of the Communication A and B General Education Requirements

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Abstract

The Communication A and Communication B general education requirements are two of five university-wide general education requirements. The Communication A requirement is satisfied by taking one of five designated courses at UW-Madison that focus on college-level writing and information literacy skills. The Communication A requirement can also be satisfied prior to matriculation based on scores on Advanced Placement and International Baccalaureate English exams, as well as by high scores on the UW System English Placement Test.

The purpose of this analysis is to describe how students are satisfying the Communication A requirement, when satisfaction of Communication A takes place relative to satisfaction of Communication B, and how the method of satisfaction of Communication A is related to final grades in Communication B.

Summary of Key Findings

1. Forty-three percent (43%) of new freshmen in fall 2009 had already satisfied Communication A at the time of matriculation.
2. The percentage of new freshmen who matriculate with Communication A already satisfied has increased since the early 2000s – from 36% in 2002 to 43% in 2009. This increase is due primarily to higher participation in Advanced Placement and International Baccalaureate exams.
3. Although students are not required to satisfy Communication A before Communication B, 95% of students do.
4. Although small in number, there are students who satisfy Communication A in the later terms of their undergraduate enrollment even though Communication A courses are intended as introductory courses. Implementation of an audit that would identify these students and remind them of the requirement may eliminate this problem.
5. We do not find any evidence that students who take a Communication B course before (or at the same time as) a Communication A course are disadvantaged in terms of final grades in the Communication B courses.
6. Students who satisfy Communication A prior to matriculation at UW-Madison are as successful (measured by final course grades) in Communication B courses as students who take a UW-Madison Communication A course.

Introduction and Background

The University-wide general education requirements were adopted by the Faculty Senate in 1994 and implemented in 1996. The Communication A requirement introduces students to college-level writing and speaking as well as critical writing and information literacy. Six UW-Madison courses with instructional content in these areas fulfill the Communication A requirement¹. In addition to the six UW-Madison courses, the Communication A requirement can be completed via:

- Advanced Placement (AP) exams²
- International Baccalaureate (IB) exams³
- UW System English Placement Test (UWEPT) scores⁴
- Transfer course credits, either direct course equivalency credit or elective credit⁵
- “Exceptions” (notation of an administrative decision that the intent of a requirement has been fulfilled)

The Communication B requirement expands on the concepts in Communication A and is designed to give more in-depth and discipline-specific practice in college-level writing. Many UW-Madison courses fulfill the Communication B requirement. Sometimes specific sections of a course fulfill the Communication B requirement when the overall course does not. In addition to the designated UW-Madison courses or course sections, the Communication B requirement can be completed via transfer course or transfer elective credit⁶ and “exceptions” (see above).

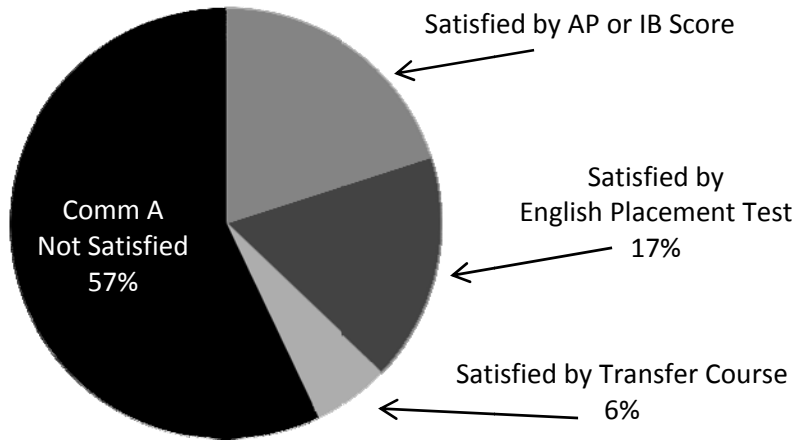
Early in 2010, Nancy Westphal-Johnson, chair of the University General Education Committee (UGEC), contacted Academic Planning and Analysis with questions related to the sequencing of the two Communication requirements. The two Quantitative Reasoning requirements are sequenced (QR A must be satisfied before QR B). However, the same forced sequencing does not currently exist for the two Communication requirements (Communication A can be taken before Communication B, at the same time as Communication B, or after Communication B). Before deciding whether a forced sequencing should be implemented, there is an interest in understanding the prevalence of possible sequences as well as other issues that may point to benefits of the sequence enforcement or problems that may be caused by it. Specifically, the questions we were asked include:

- How prevalent is it for students to satisfy the Communication B requirement before the Communication A requirement?
- Is there evidence that satisfying Communication A and B “out of sequence” is detrimental to students?
- Is there evidence that a student’s final grade in Communication B is related to how Communication A was satisfied?

Satisfaction of the Communication A Requirement at Time of Matriculation

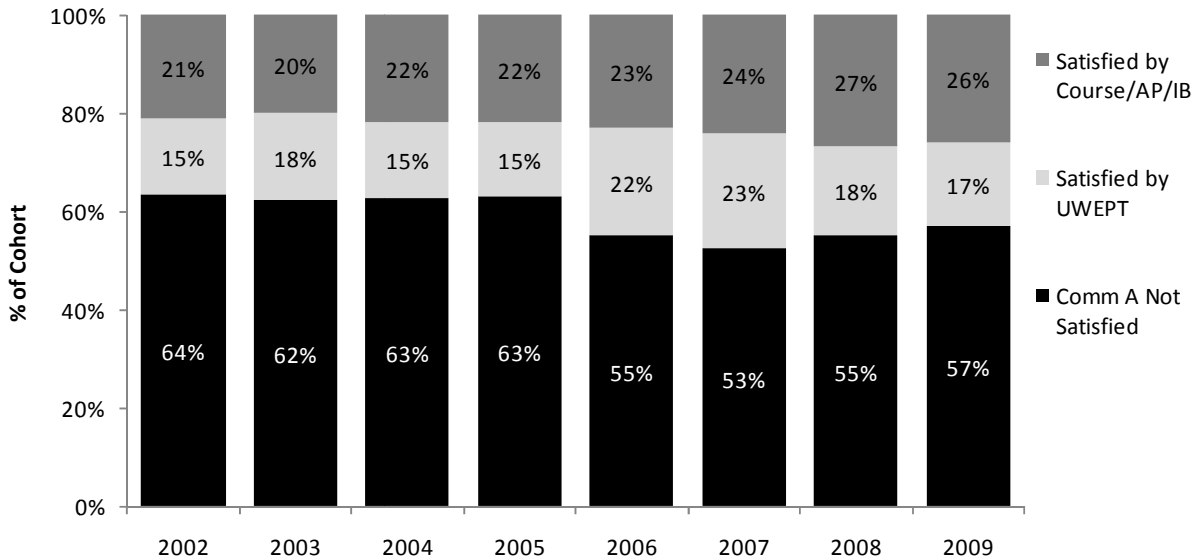
Because the Communication A requirement can be satisfied by high school coursework and placement testing, many students initially enroll at UW-Madison with the Communication A requirement already completed (Chart 1, Appendix 1). For new freshmen enrolling in fall 2009, 43% had already satisfied the Communication A requirement (26% through prior coursework and 17% by scores on the UW English Placement Test).

Chart 1
Status of Satisfaction of the Communication A Requirement at Matriculation
Fall 2009 New Freshmen



Trends over the past 8 years show that an increasing proportion of new freshmen are satisfying Communication A prior to matriculation at UW-Madison (Chart 2). In 2002 64% of new freshmen were required to take a Communication A course before graduation compared to 57% in 2009. The increase in the proportion of students matriculating with the Communication A requirement already satisfied is due primarily to increases in participation in Advanced Placement and International Baccalaureate exams.

Chart 2
Status of Satisfaction of the Communication A Requirement at Matriculation
For New Freshmen between Fall 2002 and Fall 2009



*Students who satisfy the Communication A requirement in multiple ways (for example high AP scores AND high EPT score) are only counted once using the following hierarchy: 1) Transfer course, 2) Advanced Placement, 3) International Baccalaureate, 4) UW System English Placement Test.

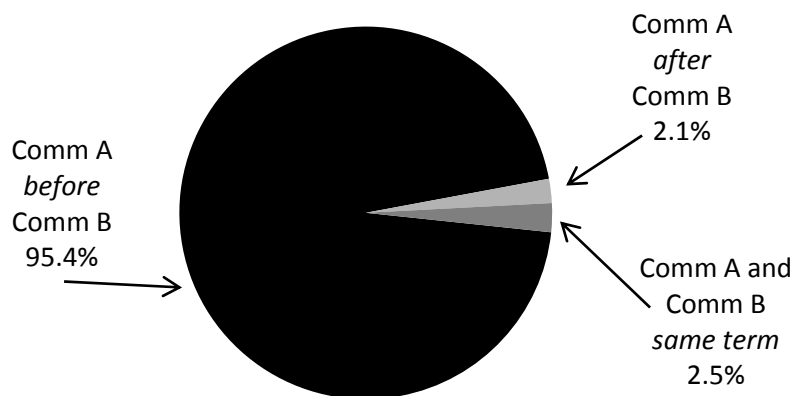
Sequencing of Communication A and Communication B Courses

To understand more about the sequencing of Communication A and Communication B⁷ courses we compared the term the Communication A requirement was first satisfied to the term the Communication B requirement was first satisfied for new freshmen in the 2002 and 2003 cohorts who graduated within 6 years AND who were not exempt from the Communication A requirement at matriculation (5457 students)⁸. They are the only students who would be required to complete both Communication A and B and are the type of students directly affected by implementation of a sequencing requirement.

Sequencing Patterns

Even though the sequencing of the Communication requirements is not currently forced, 95% of students satisfy Communication A before Communication B (Chart 3, Appendix 2). Fewer than 5% of students do not satisfy Communication A before taking Communication B: 2.1% satisfy Communication A after Communication B and 2.5% satisfy both requirements in the same term.

Chart 3
Sequencing of Communication A and B Requirements
for Graduates from the 2002 and 2003 New Freshman Cohorts who had not Satisfied
Communication A at Matriculation



Within the group of students who satisfy Communication A before Communication B, there are sequencing patterns that are more common than others. The following five Communication A and Communication B sequencing patterns account for half of these students. These patterns are (in descending order of prevalence):

- Communication A in Term 1 and Communication B in Term 4 (10.9%)
- Communication A in Term 1 and Communication B in Term 3 (10.1%)
- Communication A in Term 2 and Communication B in Term 4 (10.0%)
- Communication A in Term 2 and Communication B in Term 3 (8.7%)
- Communication A in Term 1 and Communication B in Term 2 (8.3%)

Within the group of students who satisfy Communication A and B out of sequence (Communication B before Communication A or both in the same term) there are sequencing patterns that are more common than others. Seventy one percent (71%) these students (177 of 248) satisfied both

requirements within their first two terms at UW-Madison. Although not definitive, this suggests that the reason for the mis-sequencing is because these students were unable to register for a Communication A course during their first semester. Although small in number, these students would be the ones most negatively affected by a forced sequencing.

The other pattern of note within the out-of-sequence group of students is when students delay taking a Communication A course, often until the same term they graduate. For this small group of students, 5% (13 students) satisfied the Communication A requirement sometime after their 8th term at UW-Madison. Although the data in this analysis cannot discern reason, we do wonder if these students “forgot” about Communication A, possibly delaying their graduation? Developing a better understanding of this type of student is a potential area for follow up and intervention.

Thus far, analysis of sequencing issues has dealt only with students who graduated because these are the only students who must have completed both Communication A and B. What about the sequencing patterns of Communication A and Communication B for students who did not graduate? For non-graduates who completed both Communication A and B before “leaving” UW-Madison, their sequencing patterns of Communication A and Communication B are similar to those of graduates (Appendix 3).

Final Grades in Communication B Courses by Sequencing Patterns

The UGEC is interested in understanding how students who mis-sequence Communication A and B perform in Communication B courses. Although this question is straightforward, the analysis is not. Students in this analytic cohort took 51 different Communication B courses/sections, resulting in a very small analytic population in each course. Furthermore, several of the more common Communication B courses have significantly different grading distributions compared to other Communication B courses. Moreover, grading distributions sometimes vary by section within the same course. In short, finding an “apples to apples” comparison group of students who took the same Communication B course with the same section with the same instructor proved difficult. An additional complication is that the final grades in Communication B courses are a mix of the discipline-specific content AND the Communication B curriculum. Final grades do not differentiate these components and thus offer limited comparability for this kind of analysis.

To illustrate these challenges, we show (Table 1) the final grades of the only two courses taken by students in these cohorts where there are 10 or more students in each analytic group - one group of students took their first Communication B course after their Communication A course and another who took Communication A after Communication B or at the same time. These courses are Geography 101 – Introduction to Human Geography and Chemistry 108 – General Chemistry (which offers Communication B at the section level).

If mis-sequencing of Communication A and Communication B leads to difficulty in Communication B courses then we expect to find a higher proportion of adverse outcomes (Ds and Fs) and a lower proportion of high grades in Communication B courses for students who did not complete Communication A before Communication B. However, for these two course comparisons, we actually see fewer mis-sequenced students with Ds and Fs and a higher proportion with As. The already-small number of students who take the Communication A and B courses out of sequence coupled with the lack of evidence of any harm in doing so leads us to assert that the effort to enforce sequencing for the Communication A and B requirements lacks justification considering the amount of administrative effort that would be required for enforcement.

Table 1
Comparison of Final Grades in Communication B Courses by Sequencing Pattern
New Freshmen in Fall 2002 and 2003

Course Final Grade	Geography 101		Chemistry 108	
	Comm A Term after or Same as Comm B Term	Comm A Term Before Comm B Term	Comm A Term after or Same as Comm B Term	Comm A Term Before Comm B Term
A	18%	9%	36%	32%
AB	18%	28%	14%	13%
B	26%	41%	43%	31%
BC	23%	16%	7%	11%
C	15%	3%	0%	11%
D	0%	3%	0%	2%
F	0%	0%	0%	0%
Total Students	34	32	14	54

Note: Includes new freshmen in fall 2002 and fall 2003 who had not satisfied Comm A at the time of matriculation to UW-Madison. Limited to students who took Comm A and Comm B within their first two semesters. The two courses shown have the highest number of enrolled students who satisfied Comm B before or at the same time as Comm A. A third course, Political Science 100 (First-Year Topics Seminar) had 11 students enrolled who were taking the course before they had satisfied the Comm A requirement. This course is not included in this table because there were no students in the comparison group.

Communication B Course Grades and Communication A Satisfaction Method

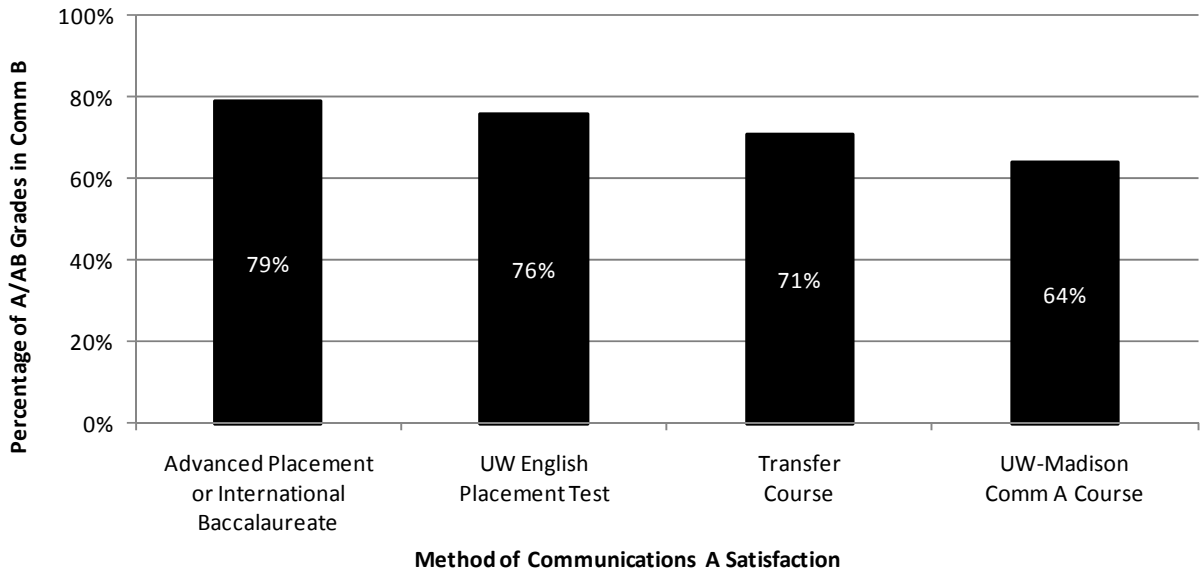
The UGEC is also interested in understanding how outcomes in Communication B courses are related to the Communication A satisfaction method. Of particular interest is how students who matriculate at UW-Madison having already satisfied Communication A fare in Communication B courses.

To address this question we examined the final grades of 8,997 graduates from the fall 2002 and 2003 new freshman cohorts who satisfied the Communication B requirement by taking a course at UW-Madison disaggregated by how they completed the Communication A requirement (Chart 4, Appendix 4). Fewer than 1 percent of these students got a D or F in their first Communication B course and this percentage did not vary by Communication A completion method.

Examining the other end of the grading distribution shows that 64% of the students who satisfied the Communication A requirement with a UW-Madison course earned an A or AB in their first Communication B course. A similar or higher proportion of students who satisfied the Communication A requirements by other methods received As or ABs in Communication B courses. Using this methodology, we do not find any evidence of disadvantage in Communication B courses to students who do not satisfy Communication A with a UW-Madison course.

Chart 4

**Percentage of A/AB Grades in Communication B Courses by Satisfaction Method of Communication A
New Freshmen in Fall 2002 and 2003 who Graduated**



Although we conclude that students in Communications B courses are not disadvantaged by satisfying Communications A by means other than a UW-Madison course, we do not assert (nor do we think there is evidence to do so) that the higher proportion of As and ABs among the other groups of students means that these are “better” means of completion of Communication A. There are differences in the academic preparation, motivation, and curricular options that these students have had that preclude any causal conclusions.

Appendix 1
Status of Satisfaction of the Communication A Requirement at Matriculation for New Freshmen

Cohort	Students	Method of Satisfaction, if Satisfied					Comm A Not Satisfied
		Advanced Placement	International Baccalaureate	UW English Place. Test	Transfer Course		
2002	5,514	13.7%	0.9%	15.4%	6.4%	63.6%	
2003	5,578	12.7%	0.9%	17.6%	6.4%	62.3%	
2004	5,642	14.2%	1.2%	15.4%	6.3%	63.0%	
2005	6,141	14.4%	1.3%	15.0%	6.2%	63.1%	
2006	5,643	15.6%	1.5%	22.0%	5.9%	55.1%	
2007	5,996	16.3%	2.2%	23.4%	5.7%	52.5%	
2008	5,774	18.3%	1.9%	18.0%	6.5%	55.3%	
2009	5,680	17.7%	2.3%	17.1%	5.8%	57.0%	

*Students who satisfy the Communication A requirement in multiple ways (for example high AP scores AND high EPT score) are only counted once using the following hierarchy: 1) Transfer course, 2) Advanced Placement, 3) International Baccalaureate, 4) UW System English Placement Test.

Appendix 2
Sequencing of Communication A and B Requirements
for Graduates from the 2002 and 2003 New Freshman Cohorts who had not Satisfied
Communication A at Matriculation

		First Term Communication B Requirement Satisfied															Total
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
First Term Communication A Requirement Satisfied	1	51	455	553	592	280	289	261	188	140	87	47	17	9	3	1	2,973
	2	62	64	473	546	240	228	172	174	133	57	37	14	8	1	1	2,210
	3	5	6	6	38	14	15	13	19	6	10	4	3	3	1		143
	4	3	7		8	8	7	7	7	2	4	4	2	2	1		62
	5		4	2	3		2	6	4	5	1	1	1	1			30
	6				4		2	3	3			1					13
	7		1	1		1		1	2	1							7
	8			1					3	1			1				6
	9		3	1	1	1			1								7
	10							1	1		1						3
	11		1		1	1											3
Total		121	541	1,037	1,193	545	543	464	402	288	160	94	38	23	6	2	5,457

*Does not include students who had "exceptions" to either of the general education Communication requirements. Light gray shading indicates students who satisfied Comm B before Comm A. Dark gray shading indicates students who satisfied both requirement in the same semester. Cells that are not shaded indicate students who satisfied Comm A before Comm B.

Appendix 3
Sequencing of Communication A and B Requirements
for Non-Graduates from the 2002 and 2003 New Freshman Cohorts who had not Satisfied
Communication A at Matriculation

		First Term Communication B Requirement Satisfied															Total
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
First Term Communication A Requirement Satisfied	1	9	64	48	89	20	18	4	6	2	7	2	1				270
	2	10	18	48	71	17	8	6	15	2	1	4	1		1	1	203
	3	2	2	3	7	2		1	2	2		3				1	25
	4		1		1	3	1			1	1						8
	5							1			1						2
	6	1			1							1					3
	7								2	1	1						4
	8				1												1
	9																0
	10																0
	11			1													1
	Total		22	85	100	170	42	27	12	25	8	11	10	2	0	1	2

*Does not include students who had "exceptions" to either of the general education Communication requirements. 198 non-graduates never completed Comm A and 872 never completed Comm B (175 never completed either requirement).

Appendix 4
Final Grade in First Communication B Course by Communication A Status at Matriculation
New Freshmen in Fall 2002 and 2003 who Graduated

Status of Communication A Satisfaction at Matriculation	Final Grade in First Communication B Course							Total
	A	AB	B	BC	C	D	F	
Satisfied: Advanced Placement	54%	26%	15%	2%	2%	0%	0%	1,266
Satisfied: International Baccalaureate	46%	21%	19%	7%	7%	1%	0%	90
Satisfied: UW English Placement Test	47%	29%	17%	3%	3%	1%	0%	1,529
Satisfied: Transfer Course	42%	29%	21%	4%	4%	1%	0%	599
Not Satisfied (Comm A at UW-Madison)	34%	30%	24%	7%	5%	1%	0%	5,513
Total	39%	29%	21%	5%	4%	1%	0%	8,997

*24 students in this group received an F in their first Comm B course. However, the percentage for any one group was less than or equal to 0.4% and is therefore rounded to 0%.

Endnotes and Source Notes

- ¹ Courses that satisfy the Communications A requirements include: English 100 and 118, Communication Arts 100 and 181, Life Sciences Communication 100, and Engineering Professional Development 155.
- ² Scores of 4 or 5 on English Language or English Literature.
- ³ Scores of 4 or 5 on English A1.
- ⁴ Scores of 605 and above.
- ⁵ English electives X04, X05, and X25.
- ⁶ Electives includes Com Arts X31; English X17, X13, X26, or X29; Hist Sci X16; Relig St X23.
- ⁷ Biology 151 was incorrectly coded as satisfying the Communication B requirement for a period of time. We did not count this course for Communication B satisfaction in this analysis.
- ⁸ The term associated with a Comm A or Comm B course is the first term that the requirement was completed (not dropped). The term sequence is calculated for each student, based on completed terms in their individual enrollment history. For all students in this analysis, term 1 is a fall term (either fall 2002 or 2003). For students who satisfy Comm A or Comm B with transfer credit, the articulation term is counted as the completion term for the requirement. For almost all students, this is term that they matriculate and/or re-enter UW-Madison.

Data Sources: We used the following InfoAccess data views to compile data needed for this analysis:

- Frozen Enrollment Demo
- Stdnt Test
- Retention Transfer Credit
- Retention Course History
- Retention Semester History
- Retention Awards Main
- Stdnt Timetable Multiterm

Analytic population: This analysis is based on entering cohorts of new freshman students. It does not include students who entered UW-Madison as transfer students from other institutions, even though all students (including transfers) are required to satisfy the Communications A requirement. The reason for this exclusion is due to data availability rather than lack of interest. When students transfer to UW-Madison their transfer credit is all posted at the same time and any information about when a course was taken is not recorded. Because the focus of this analysis is on sequencing of Communication A and B, knowledge of when the courses were taken is required for analysis.

All new freshmen are included in this analysis, including international students and other students who may be non-native speakers of English. These students are required to complete the same Communication requirements as other students. International students have similar pattern of grades in Communications A and Communication B courses and are no more likely to mis-sequence these courses than other students. In other words, the conclusions and recommendations in this report would not change if international students were not included.