Washington Center
for Improving the Quality of
Undergraduate Education

INTELLECTUAL DEVELOPMENT OF STUDENTS IN LEARNING COMMUNITY PROGRAMS 1986-87

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Introduction

This report summarizes a first effort to measure the intellectual development of students in learning community programs in two- and four-year institutions in the state of Washington.

The Washington Center for Improving the Quality of Undergraduate Education is a two-year-old consortium of thirty-three colleges in the state of Washington.[1] It focuses on faculty and curriculum development, particularly through the vehicle of interdisciplinary "learning communities." These programs generally are offerings of large blocks of academic credit in which a single cohort (or "community") of students enroll; they last one or more quarters; and they are team taught by two, three, or four faculty members around an overarching question or theme.

During the 1986-87 academic year, under a larger Ford Foundation grant supporting the development of the Washington Center consortium, the Center began a modest effort to evaluate its model learning community and faculty exchange programs in seven of its participating institutions. The evaluation included an examination of outcomes for faculty and institutions as well as for students. One measure of student development, the Measure of Intellectual Development instrument, was used in all the learning community programs.

About the Measure of Intellectual Development

The Measure of Intellectual Development (or "MID") is one of several paper-and-pencil tests adapted from the scheme William Perry, Jr., presented in his seminal work, Forms of Intellectual and Ethical Development in the College Years. (Perry, 1970, 1981) Perry, the Director of the Bureau of Study Counsel (that is, the counseling center) at Harvard, and his colleagues were interested in exploring young adult development during the post adolescent years, but more particularly, in the context of socialization to the pluralism of the academic community. The research with Harvard men entailed multiple, audio-taped interviews at the end of each year in college. The interviews were long, and open-ended, with no pre-formed questions and only minimal direction from the counselor; this format allowed a wealth of qualitative data to emerge. Extensive analysis of the transcriptions of these interviews enabled Perry and his colleagues to begin to see a sequential pattern of development in students, from a rather simplistic and authority-dependent view of the world and knowledge to a much more complex and "conceptually relativistic" one. A pattern also emerged, of making increasingly complex commitments in a relativistic world. A brief summary of the stages or "positions" of Perry's scheme is included as Figure 1. on page 7.

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[1] A Fact Sheet on the Washington Center is included as Appendix A.

As it has become more widely known, the "Perry scheme" has been regarded largely as a descriptive model, for understanding students; only recently have college educators begun to see it as a prescriptive one as well, for the design of more effective counseling and teaching approaches. Several dozen researchers around the country have been exploring strategies for measuring student development, both in college in general, in specific disciplines, and with respect to value development and career aspirations.[2] Counselors and other student development personnel and, more recently, growing numbers of faculty members are finding the scheme a powerful one for understanding differences in student behavior and attitudes, and in student responses to various learning situations. In recent years, however, there has been increasing attention to the design of both teaching and curricula in order to encourage and challenge and support students who are functioning at differing levels of complexity, and who make meaning in different ways. (Bizzell, Belenky et.al., Copes, Gabelnick et. al., Nelson, to name just a few).

In recent years numbers of researchers have been exploring simpler and less costly ways (than the recording, transcription and analysis of open-ended interviews) to assess where students are relative to "the Perry scheme" and to measure development over time. A widely used measure is the M.I.D., which was developed by Lee Knefelkamp and Carol Widick at the University of Minnesota. (Knefelkamp, Widick) It involves an essay writing exercise: students are asked to write for 20-30 minutes in response to a stimulus question having to do with classroom learning, personal decision-making, or career plans. Student essays are scored by trained raters through a fairly sophisticated process of content and style analysis. (A summary chart of the M.I.D. positions relative to student cognition of learning environments is presented in Figure 2. on page 8). The major work and data on the M.I.D. instrument can be found at the Center Applications of Developmental Instruction, directed by Bill Moore,[3] and at Alverno College in Milwaukee, Wisconsin, where extensive studies of development relative to the Perry scheme have been conducted on Alverno students. (Mentkowski, et.al.)

The M.I.D. deals with the "Perry positions" 2 - 5; it does not attempt to rate students along the 6-9 positions having to do with how the individual makes commitments in a relativistic world. Most lower division undergraduates fall in the range of positions two through four.

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[2] Reports of research efforts, a cumulative bibliography of "Perry work," and copy service are coordinated by Larry Copes, The Perry Network, ISEM, 10429 Barnes Way, St. Paul, MN 55075.

[3] Center Applications of Developmental Instruction, 806 High Street, Farmville, VA 23901

The Learning Community Programs

The learning community programs in Washington were all freshman level offerings; the actual students enrolled were a mix of "high school direct" students and older, returning adults, with these two exceptions: the Tacoma Community College - Evergreen State College BRIDGE program is specifically targeted to older adults (average age = 42), and particularly people of color; and the Matteo Ricci ("early college") group at Seattle University consisted only of students aged 16-18.

The types of learning communities included:

coordinated studies programs: (Bellevue Community College, North Seattle Community College, The Evergreen State College, and the Tacoma Community College-Evergreen Bridge Program) team-taught interdisciplinary offerings in which students enroll for 15 to 18 quarter hours of credit. These programs involve large amounts of time in seminars on primary texts, and small group work in both writing, presentation development, and/or science labs;

federated programs: (Centralia College) clusters of three interrelated courses, in which a cohort of students has an opportunity to co-register. They then meet in an additional weekly seminar, led by all three faculty, to allow students to build connections between the courses and to come together as a community;

a standard course within a larger learning community: Matteo Ricci College, the early college program Seattle University.

These learning communities are more fully described in Appendix B.

The Use of the M.I.D.

Different M.I.D. essay questions were used, one at the beginning of the quarter or year (the "pre" test), and another at the end (the "post" test), so that evidence of progress along the developmental scale could be obtained. Generally the "pre" test essay was the "best class," or the "decision" essay; and the "post" test essay was the "ideal learning environment." The essay stimuli are presented in Figure 3. on page 9.

Faculty in these learning community programs had minimal briefing on the Perry scheme, and agreed to administer the tests voluntarily, during the first and last weeks of their quarter- or year-long program. By the same token, students wrote the essays voluntarily, and anonymously. Carbonless NCR paper was provided, so that faculty could have the option of keeping copies of the essays for their own use as entry and exit writing samples. Student scores were provided to the faculty only after the programs' conclusion and, again, anonymously.

Because faculty were generally unfamiliar with the Perry scheme, their learning community curricular offerings unfolded more as implicit than explicit developmental interventions. With the exception of the Human

Development program at Evergreen, no program addressed the concept of intellectual development. However, all the coordinated studies programs invited students to engage in learning environments and curricula operating (in Perry's terminology) at Late Multiplicity:

- diversity of viewpoints and values was seen as legitimate;
- students were encouraged to think independently as well as to rely on peers as legitimate co-learners;
- the "book seminar" was used in nearly every program: that is, students were asked to read and write response papers to primary texts and to spend several hours each week in seminar discussion of the texts;
- the use of supportive evidence, the building of connections, integrative and synoptic thinking was valued and explicitly encouraged;
- qualitative evaluations of both students and faculty as well as student self-evaluations were employed;
- self-awareness of the learning process was encouraged through journal work, writing assignments on "learning about learning," and through the narrative self-evaluation process.

Results

In programs where "pre" and "post" M.I.D. scores were obtained, results are presented in Figure 4. on page 10. On the following page (Figure 5. on page 11) are M.I.D. scores obtained in programs were only one essay sample was taken. Comparative data, kindly provided by Bill Moore of the Center for the Application of Developmental Instruction, are presented in Figures 6.- 10. on pages 12-16.

In coordinated studies programs, the averages of the intakes essays, or "pre" means, generally fall in the 2.90 - 3.0 range of Early Multiplicity. Slightly lower scores (2.67) were found in the older adult program (TCC-Evergreen BRIDGE), but Bill Moore has cautioned us that M.I.D. scores from older adult populations are particularly difficult to rate accurately. Slightly higher scores (3.18) were found in a second quarter coordinated study at Seattle Central Community College; however, many of these students were alumni of the previous quarter's coordinated study at that college.

These "pre" means are generally higher than scores for comparable college freshmen groups; they parallel scores found among junior and senior level learners at other institutions (note Figures 7. and 10.), or those scores of slightly older adult learners (Figure 9), ages 21-30. Our reading of this phenomenon is two-fold: there is a good deal of self-selection of students into these learning communities--students may be electing to learn where active and collaborative learning and the building of intellectual connections are explicitly celebrated. Second, our Evergreen and community college students populations are generally older than those at typical residential universities or colleges. The Matteo Ricci "pre" means ranged from 2.79 - 2.89, quite parallel to scores of freshman level, and 17-18 year-olds in the CADI data bank (Figure 9.)

The "post" mean scores from the coordinated studies programs range from 3.22 - 3.53. The average progress from beginning- to end-of-quarter or beginning- to end-of-year was of 0.30 to 0.45 position, with 57% to 73% of the students advancing a third or more position of development. These results are comparable (Figure 8.) to a Swarthmore College freshman year-long class, and to a semester-long program in the Honors Learning Community at the University of Maryland. Both the average mean growth, the positive change, and the "post" mean levels represent significant development along the Perry progression. For the federated program at Centralia College, both the "pre" and "post" scores were lower than those for coordinated studies, but the positive change (57%) and the average growth (0.37) over one quarter were just as strong as for coordinated studies. The Matteo Ricci course data shows no growth; however, it should be again pointed out that these students represent a younger and even-aged cohort; they were enrolled in a course, not an interdisciplinary program; and, additionally, only a small number of "post" essays were obtained.

Discussion

We in the Washington Center believe that learning communities present a powerful structural and pedagogical model for effectively enhancing undergraduate students' intellectual development. This first year's M.I.D. data from learning community programs would seem quite impressive in supporting this claim.

These results raise some questions and challenges for us, however. This first effort represents a first glimpse: the M.I.D. effort was set up as an exploratory study, not as a rigorous research effort. Second, the the M.I.D. essay topics themselves may have some built-in bias. The M.I.D. topics requested students to describe and draw observations about their direct experiences in academic settings; after a quarter or year in a generally engaging and positive multiplistic learning environment, the "post" essay ("Describe your ideal learning environment") results could be simply confirming the obvious that has just been experienced. Bill Moore's response to this concern is that the essay rating process examines a great deal more than simply the explicit references to elements of the learning environment; it examines the essays for style, language and overall coherence, and more particularly, for the rationale students present for their ideal learning environment. Further, Bill indicates that numerous studies have been conducted with mixed samples of "best class" and "ideal learning environment" M.I.D. essay topics, without significant differences between them.

Next Steps

During the 1987-88 academic year, The Washington Center will continue to use the M.I.D. in its evaluation efforts. We plan to gather M.I.D. entry and exit data from the model learning community programs in our network, as well as from comparison groups of students enrolled at the same institutions but not in learning community programs. It is our plan to build in some variation in the essay topics, and to gather careful demographic information on the students as well, to give us a more detailed context for this data about student development. In addition, we will be

administering an additional entry and exit survey to these students, of student attitudes about college in general and the learning community environment in particular. Our plan is to build a larger picture of the types of students who enroll in these programs, the kinds of attitudinal changes students experience in them, and the process of intellectual development such programs provide.

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Figure 1.

Perry's Scheme of Intellectual and Ethical Development

Dualism modified	Position 1	Authorities know, and if we work hard, read every word, and learn Right Answers, all will be well.
	Transition	But what about those Others I hear about? And different opinions? And Uncertainties? Some of our own Authorities disagree with each other or don't seem to know, and some give us problems instead of Answers.
	Position 2	True Authorities must be Right, the others are frauds. We remain Right. Others must be different and Wrong. Good Authorities give us problems so we can learn to find the Right Answer by our own independent thought.
	Transition	But even Good Authorities admit they don't know all the answers *yet*!
	Position 3	Then some uncertainties and different opinions are real and legitimate *temporarily*, even for Authorities. They're working on them to get to the Truth.
	Transition	But there are *so many* things they don't know the Answers to! And they won't for a long time.
	Position 4a	Where Authorities don't know the Right Answers, everyone has a right to his own opinion; no one is wrong!
	Transition *(and/or)*	But some of my friends ask me to support my opinions with facts and reasons.
Relativism discovered	Transition	Then what right have They to grade us? About what?
	Position 4b	In certain courses Authorities are not asking for the Right Answer; They want us to *think* about things in a certain way, *supporting* opinion with data. That's what they grade us on.
	Transition	But this "way" seems to *work* in most courses, and even outside them.
	Position 5	Then *all* thinking must be like this, even for Them. Everything is relative but not equally valid. You have to understand how each context works. Theories are not Truth but metaphors to interpret data with. You have to think about your thinking.
	Transition	But if everything is relative, am I relative too? How can I know I'm making the Right Choice?
Commitments in Relativism developed	Position 6	I see I'm going to have to make my own decisions in an uncertain world with no one to tell me I'm Right.
	Transition	I'm lost if I don't. When I decide on my career (or marriage or values) everything will straighten out.
	Position 7	Well, I've made my first Commitment!
	Transition	Why didn't that settle everything?
	Position 8	I've made several commitments. I've got to balance them—how many, how deep? How certain, how tentative?
	Transition	Things are getting contradictory. I can't make logical sense out of life's dilemmas.
	Position 9	This is how life will be. I must be wholehearted while tentative, fight for my values yet respect others, believe my deepest values right yet be ready to learn. I see that I shall be retracing this whole journey over and over—but, I hope, more wisely.

*From Perry, W. G., Jr., "Cognitive and Ethical Growth: The Making of Meaning." In A. Chickering and Associates, The Modern American College. San Francisco: Jossey-Bass, 1981, Chapter 3, pp. 76—116.

Figure 2.

Translation of Perry Model into Student-as-Learner Characteristics

Cue Categories	Position 2	Position 3	Position 4	Position 5
View of Knowledge and Learning	•focus on what to learn-content, facts •knowledge = collection of information	•focus on how to learn-processes, methods •"good" learning is practical, relevant	•focus on how to think •"New Truth"	•focus on how to think in context •rules of adequacy to judge knowledge
Role of Authority	•Teacher is source of right answers •Teacher is responsible for the learning	•Teacher is source of methods to right answers •Teacher assumes multiple roles	•Teacher is source of ways to think •Student either clings to authority(Adh.) or discounts expertise(Opp.)	•Teacher is source of expertise •Student seeks mutuality of learning
Role of Learners/Peers	•Learner responsibility is to reproduce information •Peers rarely mentioned other than notations of friends in class	•Learner responsibility is to work hard •Peers are interesting sources of diversity	•Learner responsibility is to think independently •Peers are legitimate sources of learning because everyone has a right to own opinion	•Learner responsibility is to exercise the mind •Peers are truly legitimate sources of learning
Language	•absolutes •dichotomies	•qualifiers •vague, unspecific terms (fuzzy)	•absolutes within multiplicity •dichotomies, but more elaborate than a 2	•language demonstrates analysis and synthesis •extensive self-processing
Multiples/Quantity	•simplistic lists •little or no recognition of multiples	•quantity terms •"corraling"	•multiplicity/diversity seen as part of learning process •quality begins to be as, and sometimes more important than quantity	•integration of multiples •multiplicity/diversity is assumed
Atmosphere	•safe learning environment •structured, traditional formal process preferred	•variety of methods endorsed •less formal & traditional processes accepted	•may reject rote learning, memorization •non-traditional teaching is acceptable	•excited by ideas •search for synthesis endorsed
Role of Evaluation	•values clear, straightforward approach •test questions should be clear-cut	•concern with fairness •hard work = good grades	•may question teacher's right to evaluate student •learning to accept qualitative criteria as legitimate in evaluation	•separates evaluation of work from evaluati of self •values qualitative feedback

Adapted from Knefelkamp, L. L., & Cornfeld, J. L. "Combining Student Stage and Style in the Design of Learning Environments: Using Holland Typologies and Perry Stages," 1979 (Available from CADI)

Figure 3.

M.I.D. ESSAY STEMS USED BY WASHINGTON CENTER 1986-87

ESSAY A : Best Class

Describe the best class you've taken in high school or college. What made it positive for you? Feel free to go into as much detail as you think is necessary to give a clear idea of the class: for example, you might want to discuss areas such as the subject matter, class activities (readings, films, etc.), what the teacher was like, the atmosphere of the class, grading procedures, etc. -- whatever you think was important. Please be as specific as possible, giving a complete description of your experiences and how you felt about it.

ESSAY AP: Ideal Learning Environment

Describe a class that would represent the ideal learning environment for you. Please be as specific and concrete as possible about what this class would include; we want you to go into as much detail as you think is necessary to give us a clear idea of this ideal class. For example, you might want to describe what the content or subject matter would be, the evaluation procedures that would be used, the demands on you as a student, what the teacher/s would be like, and so on. We want a complete description of what you would see as an ideal class.

ESSAY B: Decision

Think of the last time you had to make a decision about something that had major importance to you or the last time you had to choose between significant alternatives. 1) What did you think about having the alternatives? 2) How did you go about making the decision? 3) How did you feel about it afterwards? Please be as detailed as possible in your description.

Figure 4.

MEASURE OF INTELLECTUAL DEVELOPMENT
IN SELECTED LEARNING COMMUNITY PROGRAMS IN WASHINGTON STATE

1987-88 Academic Year

Program and Institution	Duration	Pre-mean	Post-mean	Positive Change*
TESC Coordinated Study: "Human Development"	3 quarters	2.96 (N=85)	3.34 (N=49)	57%
TESC Coordinated Study: "Matter and Motion"	3 quarters	2.97 (N=55)	3.27 (N=28)	63%
TESC Coordinated Study: "Art, Music and Literature"	3 quarters	3.04 (N=83)	3.38 (N=55)	58%
TESC Coordinated Studies: "Society & the Computer"	3 quarters	2.90 (N=81)	3.22 (N=56)	68%
North Seattle Community College Coordinated Study "Gods, Heroes & Humans"	1 quarter	2.98 (N=51)	3.43 (N=30)	73%
Seattle Central Community College Coordinated Study "Science Shakes the Foundations"	1 quarter	3.13 (N=23)	3.48 (N=23)	67%
Centralia Coll. Federated Programs "Wilderness" and "Bioethics"	1 quarter each	2.67 (N=8)	3.04 (N=12)	57%
Seattle U. Matteo Ricci Mixed group of HS Seniors and S.U. freshmen enrolled in course, "Composition, Language and Thought"	1 quarter	2.79 (N=21) 2.89 (N=25) 2.83 (N=25)	2.77 (N=49)	34%

* Indicates percent of sample showing +1/3 or more development.

Figure 5.

M.I.D. RATINGS GATHERED FROM OTHER LEARNING COMMUNITY PROGRAMS

Only one essay sample was administered in the following programs:

Program and Institution	Duration	Pre-mean	Post-mean
Tacoma Community College-Evergreen BRIDGE Program (Older adults)	3 quarters	2.68 (N-28) Essay A 2.68 (N-26) Essay B	
Seattle Central Community College Coordinated Study "Power and the Person"	1 quarter	3.07 (N-68)	
SCCC "Science Shakes the Foundations" Mixed essays, pre and post.	1 quarter	3.18 (N-25)	
Seattle Central Community College Coordinated Study "Welcome to America"	1 quarter		3.50 (N-16)
North Seattle Community College Coordinated Study "Love, Fear and Trembling"	1 quarter		3.39 (N-36)
Bellevue Community College Coordinated Study: "Televised Mind"	1 quarter		3.39 (N-38)

Figure 6.

MEASURE OF INTELLECTUAL DEVELOPMENT: NORMATIVE DATA*

Classification	N	Mean	Position 2	Tr*	Position 3	Tr	Position 4	Tr	Position 5	(%s)
Freshmen	1695	2.80	4.7	44.1	38.9	11.0	1.3			
Sophomores	367	2.88	1.9	42.0	37.6	15.3	2.7	0.5		
Juniors	358	2.91	2.5	33.0	47.2	15.4	1.4	0.3	0.3	
Seniors	337	2.98	1.8	29.7	46.9	15.4	4.7	1.5		
Age										
18	378	2.87	1.1	40.5	45.0	11.4	2.1			
19	229	2.81	1.3	48.9	38.9	7.9	3.1			
20	200	2.87	0.5	41.0	44.5	11.5	2.5			
21	116	2.91	0.9	35.3	46.6	15.5	1.7			
22+	99	2.90		43.4	41.4	10.1	2.0	2.0	1.0	
Gender										
Males	526	2.92	1.7	40.1	37.2	15.7	4.3	0.5	0.1	
Females	1287	2.89	1.0	37.2	47.0	11.8	2.4	0.3	0.1	

*Tr - Transition

* courtesy Bill Moore, Center for Applications of Developmental Instruction, 806 High Street, Farmville, VA 23901.

Figure 7.

MEASURE OF INTELLECTUAL DEVELOPMENT: SELECTED CROSS-TABULATIONS *

Age by Classification*

(Means)

	18-19	20	21	22	23+	Row N
Freshmen	2.70	2.77	-	-	2.84	78
Sophomores	2.76	2.86	2.70	-	2.96	57
Juniors	-	2.92	2.90	2.91	3.00	151
Seniors	-	-	2.81	2.96	3.25	84
Column N	67	82	100	54	67	Total N = 370

Gender by Classification*

		N	Mean	Position 2	Position 3	Position 4	Position 5
Freshmen	Males	33	2.75	30.3	66.7	3.0	
	Females	53	2.83	22.6	69.8	7.5	
Sophomores	Males	25	3.01	16.0	72.0	8.0	4.0
	Females	40	2.82	17.5	80.0	2.5	
Juniors	Males	36	2.86	13.9	83.3	2.8	
	Females	117	2.93	6.0	89.7	4.3	
Seniors	Males	41	3.00	14.6	63.4	22.0	
	Females	46	3.02	4.3	87.0	8.7	

*Single sample - large, public, mid-Atlantic university (total N = 391)

* courtesy Bill Moore, Center for Applications of Developmental Instruction, 806 High Street, Farmville, VA 23901.

Figure 8.

MEASURE OF INTELLECTUAL DEVELOPMENT: RECENT LONGITUDINAL INTERVENTION STUDIES

Institution	Sample	Duration		N	Pre-Mean	Post-Mean	Positive Change*
Gardner-Webb C.	freshman seminar	semester		57	2.44	2.69	53%
Seton Hill C.	freshman core	semester		49	2.84	3.01	41%
Swarthmore	freshman	year		13	3.00	3.53	62%
Old Dominion University	freshman orientation course	semester		77	2.70	2.85	48%
University of Maryland, College Park	female education majors	semester		57	2.72	2.91	54%
Indiana U.	upper-class & graduate biology students	semester		46	3.04	3.24	52%
Anne Arundel Comm. College (Maryland)	2-yr. college students	semester		19	2.67	2.77	32%
University of Maryland, College, Park	FIPSE Project	semester	X[1]	15	2.94	3.13	53%
			C[2]	16	3.00	3.03	27%
			H[3]	16	2.97	3.34	56%
Memphis State University	all freshmen-career development class	semester		90	2.59	2.79	45%
Rutgers U.		semester		57	2.82	2.88	41%

[1] experimental group
[2] control group
[3] honors group

*Percent of total sample showing +1/3 position or more development.

* Data courtesy of Bill Moore, Center for Applications of Developmental Instruction, 806 High Street, Farmville, VA 23901

Figure 9.

MEASURE OF INTELLECTUAL DEVELOPMENT: A SAMPLING OF AGE COMPARISONS

Sample Source	Age Breakdown	Sample N	Perry Mean
Univ. of Maryland, College Park	17-19	37	2.70
	20-22	58	2.86
	23-25	26	2.96
	26-41	15	3.03
U. of Colorado, Denver & Metro. State C.(CO)	20-25	20	2.96
	26-30	36	3.00
	31-35	35	3.07
	36-40	27	3.12
	40+	21	3.14
U. of Wisconsin, Oshkosh (nursing students)	<=19	39	2.68
	20	33	2.64
	21	24	2.89
	22+	23	2.91
SUNY-Oswego	17-18	44	2.77
	19	28	2.71
	20	28	2.81
	21	32	2.94
	22+	30	2.86
Univ. of Maryland, College Park	18-19	19	2.86
	20-29	26	3.10
	30-39	22	3.17
	40+	22	2.97
Memphis State U. (non-traditional social work majors)	20+	24	2.87

Data courtesy of Bill Moore, Center for Applications of Developmental Instruction, 806 High Street, Farmville, VA 23901.

Figure 10.

MEASURE OF INTELLECTUAL DEVELOPMENT: A SAMPLING OF CLASSIFICATION COMPARISONS

Sample Source		Freshmen	Soph.	Juniors	Seniors	Other
US Air Force Academy	N	30	30	30	30	
	Mean	2.72	2.93	2.82	2.72	
SUNY-Oswego	N	60	28	21	54	
	Mean	2.72	2.75	2.87	2.90	
Univ. of Maryland	N	25	22	22	66	
	Mean	2.72	2.72	2.91	2.91	
U.Wisconsin-- Oshkosh	N	12	60	22	29	
	Mean	2.70	2.70	2.74	2.96	
Univ. of Maryland (Women's Studies)	N	26	74	28	7	
	Mean	2.81	2.85	2.96	2.95	
Gettysburg College(PA)	N	--	23	24	6	4*
	Mean	--	3.13	2.97	3.28	3.92*
Union College(NY)	N	--	--	9†	16	17††
	Mean	--	--	3.03†	3.44	4.16††
Walsh College(MN)	N	92	15	38	31	
	Mean	2.74	2.69	2.78	2.88	
Winthrop College(SC)	N	8	14	16	7	
	Mean	2.42	2.69	2.67	2.95	

ASSORTED ALL-FRESHMAN SAMPLES

Sample Source	N	Mean
Memphis State U.	90	2.59
Longwood C.(VA)	146	2.63
Walsh C.(MN)	189	2.76
Seton Hill C.(PA)	147	2.84
Scripps C.(CA)	193	2.88
Millsaps C.(MS)	170	2.96*
U. of Maryland[Honors]	70	3.02

*End-of-year sampling; all others taken at beginning

*Faculty & Graduate Students
†Freshmen, Sophomores, & Juniors
††Faculty and Alumni

Data courtesy of Bill Moore, Center for Applications of Developmental Instructio
806 High Street, Farmville, VA 23901.

APPENDIX A.

THE WASHINGTON CENTER FOR THE IMPROVEMENT OF THE QUALITY OF UNDERGRADUATE EDUCATION

Fact Sheet

THE CENTER'S PURPOSE

The Washington Center was established in 1985 at The Evergreen State College as an inter-institutional consortium devoted to improving undergraduate education. The Center focuses on low-cost, high-yield approaches to educational reform, with a special emphasis on better utilization and sharing of existing resources through inter-institutional collaboration.

INSTITUTIONS AFFILIATED WITH THE WASHINGTON CENTER

There are currently 33 institutions affiliated with the Washington Center. These include two and four year institutions and both public and private colleges. The following institutions are members of the Washington Center:

Washington State University and the University of Washington, The Evergreen State College, Western Washington State University, Central Washington University, Eastern Washington University, Pacific Lutheran University, Seattle University, St Martin's College, The University of Puget Sound, Seattle Pacific University and Antioch University - Seattle. Twenty-one community colleges are members including Bellevue, Centralia, Clark, Edmonds, Everett, Green River, Highline, Lower Columbia, North Seattle, Olympic, Pierce, Seattle Central, Shoreline, Skagit, South Seattle, Spokane Falls, South Puget Sound, Tacoma, Wenatchee Valley, Whatcom, and Yakima Valley.

MAJOR ACTIVITIES OF THE WASHINGTON CENTER

The Washington Center's central activities are inter-institutional faculty exchanges, the development of interdisciplinary model programs, conferences and seminars on effective approaches to teaching and learning, and the provision of technical assistance on topics related to excellence in undergraduate education. The Washington Center publishes a newsletter three times a year.

THE FACULTY EXCHANGE PROGRAM

As of June, 1987, more than 125 faculty members have been involved in quarter or year-long team teaching experiences with exchange faculty. Most exchanging faculty members teach in one of the model programs. Thirteen schools have been involved with inter-institutional faculty exchanges, including University of Washington, Western Washington University, The Evergreen State College, Seattle University, University of Puget Sound, and these community colleges: Bellevue, Centralia, Lower Columbia, North Seattle, Seattle Central, South Puget Sound, Spokane Falls, and Tacoma.

MODEL PROGRAMS IN OPERATION

There are model interdisciplinary learning community programs in operation or in the planning stages at more than sixteen schools, including Eastern Washington University, Western Washington University, The Evergreen State College, The University of Washington, and North Seattle, Bellevue, Centralia, Edmonds, Centralia, Green River, Lower Columbia, Seattle Central, Shoreline, Spokane Falls, Tacoma, Whatcom and Yakima Valley Community Colleges. Current programs associated with Washington Center activities have involved more than 2000 students in the past 18 months.

WASHINGTON CENTER SEMINARS

The Washington Center has sponsored workshops and seminars on active approaches to learning, learning communities as a means of improving undergraduate education, writing across the curriculum, using assessment and evaluation to improve the learning process, and on William Perry's work on intellectual development in college students.

FUNDING FOR THE WASHINGTON CENTER

From its founding in 1985 until July 1987, the Washington Center was supported entirely by private foundations. Funds from the Exxon Education Foundation in 1985-86 focused on faculty development and the creation of learning community model programs. A grant from the Ford Foundation currently is directed towards curricular coherence, faculty development, and the creation of closer partnerships between two- and four-year institutions. The Matsushita Foundation has granted the Center funds for the development of ties between colleges in the consortium and high schools. Finally, the Center has received its most recent funding from the Burlington Northern Foundation for faculty exchanges. All grants are designed to pass through funds to participating Washington Center institutions; in this manner, the Center successfully leverages private funds against redeployed institutional resources at a ratio of about 1:6. In December, 1986, Governor Booth Gardner recommended funding the Washington Center as part of his program to improve the state's educational system. A $400,000 biennial budget request to the 1987 Washington Legislature was successful. Even with state funding, the Center expects to continue to leverage resources and raise substantial private funds to support an expanding set of activities.

APPENDIX B.

Learning Community Programs in the Washington Center Network whose Students were Evaluated with the M.I.D.

The Evergreen State College

Human Development: Year-long coordinated study "Core Program" (Core Programs at Evergreen are geared toward the entering student); exploration of the biological, psychological and cultural roots of human behavior over the lifetime of the individual; credit in biology, psychology, anthropology, the humanities and writing. Evergreen faculty: Janet Ott, Setsuko Tsutsumi, and Rosalie Thomas Reibman. Visiting faculty from Seattle Central Community College: Bobby Righi (Fall), Jan Ray (Winter), and Nancy Finley (Spring).

Matter and Motion: Year-long coordinated study combining work in college physics, chemistry, calculus, and laboratory computing. Credit in physics, chemistry, calculus, computer programming and scientific inquiry methods. Faculty: Jeff Kelly and Robert Cole.

Art, Music and Literature: New Beginnings: Year-long coordinated study "Core Program;" introduction to the formal elements of art, music and literature; comparative studies between Neo-Classicism and Romanticism and Modernism and post-Modernism. Credit in art history, music history, literature, and writing. Evergreen faculty: William Winden, Andrew Hanfman, and Hiro Kawasaki. Visiting faculty from The University of Washington: Andrew Buchman.

Society and the Computer: Year-long coordinated study "Core Program;" an examination of the nature and impact of technology in general and of computers and the new communication technologies in particular. Credit in humanities and social sciences, social science research, writing, mathematics, logic, media studies, programming and computer applications. Evergreen faculty: Russ Fox, Betty Ruth Estes, John Aikin Cushing. Visiting faculty from Seattle University: Carl Swenson.

North Seattle Community College

Gods, Heroes and Humans: An Introduction to Western Tradition: One-quarter-long coordinated study; examination of ways human beings living in different epochs of Western civilization have explored questions of the moral and spiritual nature of the universe, the ways humans find meaning and attempt to achieve happiness in the universe. Credit: English 101 or 102, Introduction to Literature, History of Civilization, and Great Books Seminar. North Seattle faculty: Jim Harnish, Michael Kischner. Visiting faculty from Bellevue Community College: Julianne Seeman.

(North Seattle Community College, continued)

Love, Fear and Trembling: One-quarter-long coordinated study; focus on contemporary anxieties, especially those dealing with the relationships between love, fear and anxiety and how these relate to fundamental societal issues of the 20th century such as conflict and war, authoritarianism and freedom, and the growth of collective evil and their accompanying ideologies. Credit in English 102, literature, history, psychology and/or philosophy. Faculty: Marcia Barton, Larry Hall, Jim Harnish, and Tom Kerns.

Seattle Central Community College

Science Shakes the Foundations: Dickens, Darwin, Marx and You. One-quarter-long coordinated study; examination of 19th century views of evolution and how they inform the way we see the world. Credit in English 101 or 102, physical anthropology, literature, and political economy. Seattle Central Faculty: Bobby Righi, Astrida Onat, and Valerie Bystrom. Visiting faculty from Evergreen: York Wong.

Power and the Person: Looking at the Renaissance: One-quarter-long coordinated study; comparative study of three periods of re-awakening: the 15th century European Renaissance, the Harlem Renaissance of the 1920s and 30s, and the American upheavals of the 1960s. Credit in: English 101 and 102, music history, art, and history. Seattle Central faculty: Jeanne Hansen, Dick Keller, and Audrey Wright. Visiting faculty from Evergreen: Marilyn Frasca.

Welcome to America: America's Ethic Heritage: The Impact of Immigration on the West Coast: One-quarter-long coordinated study; examination of the impact of immigration on the west coast, particularly from the mid-19th century to the present. Credit in English 101 or 102, literature, sociology, anthropology and history. Seattle Central faculty: Al Hikida, Caryn Cline, and Cynthia Imanaka. Visiting faculty from Evergreen: Gail Tremblay.

Bellevue Community College

The Televised Mind: One quarter-long coordinated study; a consideration of how our perceptions become ideas, how changes in the means of communication have altered American values, how American television evolved to its present state, why we watch what we watch. Credit in English 101 or 102, literature and anthropology. Faculty: David Jurji, Jerrie Kennedy, Julianne Seeman, and Carl Waluconis.

Centralia College

Wilderness and the American Experience: Three "federated courses" offered during one quarter in Introduction to Forestry, American History and English 101, with an additional integrating seminar. Faculty: Don Foran, Dave Martin and Les Dooly.

(Centralia College, continued)

Bio-ethics: Three federated courses offered during one quarter in Philosophy (Introduction to Ethics), Genetics, and English 101, with additional integrative seminar. Faculty: David Martin, Don Foran.

Seattle University - Matteo Ricci College

Composition, Language and Thought: One-quarter-long course; study and practice in informal logic and argumentation, with emphasis upon the composition of clear and persuasive writing. This was offered both to Matteo Ricci College first year students (students enrolled in Seattle University's early college program who are equivalent in age to high school seniors) as well as to traditional Seattle University freshmen. Faculty of different sections: Andrew Tadie, Bob Larson. Visiting faculty from Evergreen: Mark Levensky.

Tacoma Community College - Evergreen BRIDGE Program

Connections: Personality, Expression and Culture: Two-quarter-long coordinated study specifically geared to older, returning adults; exploration of human perception from the perspective of three academic disciplines: psychology, anthropology and the creative arts. Credit in interdisciplinary studies in writing, psychology, anthropology and art. Tacoma Community College faculty: Frank Dippolito and Jerry Shulenbarger; Evergreen faculty: Elizabeth Diffendal.