“DID I LEARN ANYTHING?” THE USE OF SELF-ASSESSMENT TO EVALUATE AUTHENTIC LEARNING COMPETENCIES OF WWU FRESHMAN INTEREST GROUP SEMINAR STUDENTS

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Abstract

Traditional higher education institutions have formed learning communities based on constructivist practices, to facilitate students’ acquisition of authentic learning competencies they will need in the workplace. However, there is often a mismatch between the constructivist practices used to teach such deep learning and the instructivist methods used to assess it. This study uses self-assessment to evaluate ways students in a freshman learning community situated within a traditional higher education environment have acquired authentic learning. Findings show that although freshmen tend to think dualistically and do not know how to self-assess, their responses were useful in determining themes of cognitive competencies, learning from peers, group work, and self-efficacy. The self-assessments also helped identify gaps between students’ expectations, level of development and actual learning experiences; and what learning they perceive as “real.”
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A disturbing and dangerous mismatch exists between what American society needs of higher education and what it is receiving. Nowhere is the mismatch more dangerous than in the quality of undergraduate preparation . . . what does our society need from higher education? It needs stronger, more vital forms of community. It needs an informed and involved citizenry. It needs graduates able to assume leadership roles in American life. . . . Above all, it needs a commitment to the idea that all Americans have an opportunity to develop their talents to the fullest. Higher education is not meeting these imperatives. (Wingspread Group Blue Ribbon Study, 1993, p. 1-4)

The Wingspread Group report, quoted above, as well as others (Boyer, 1987; Astin, 1993; Coles, 1993), brought to light how—as we approached the 21st century—higher education was lagging behind current societal and political forces, which included an increasingly diverse population, rise of technology, and a more entrepreneurial, consumer-oriented approach to education. The Information Age—encompassing the Internet, multimedia, distance education, etc.—has dramatically increased both access to and delivery of knowledge, as well as created a demand for workers with technological skills. Educational technology, too, has led to shifts in teaching and learning strategies, including how content is delivered and assessed (Dochy & McDowell, 1997).

The reports on higher education also showed the schism between what a traditional, four-year liberal arts education is delivering and what is needed by students to function effectively in today’s complex world: “clear communication skills, critical thinking skills, and a developed sense of civic responsibility” (Shapiro & Levine, 1999, p. 2). Biggs (1999) pointed out that today’s university students are more diverse—socially, economically, and culturally—than ever before. In addition, there are more students than ever before in history, many of them wanting vocational skills as well as an academic education. Today’s world dictates that universities must educate learners not only in the traditional, academic sense, but give them problem-solving and professional skills. In general, “. . . successful functioning in this era demands an adaptable, thinking autonomous person, one who is a self-regulated learner, capable of communicating and cooperating with others” (Dochy, Segers, & Sluijsmans, 1999, p. 331). What’s more, learning no longer stops with a college diploma: the explosion of knowledge and rapid pace of change in today’s world dictates students must develop the skills to become “lifelong learners.” Specifically, the student of today must possess applicable, “real world” competencies. Dochy, Moerkerke, & Sluijsmans (1999) refer to Birenbaum’s (1996) definition of authentic learning competencies:

(a) **Cognitive competencies** such as problem-solving, critical thinking, formulating questions, searching for relevant information, making informed judgments, efficient use of information, conducting observations, investigating, inventing and creating new things, analyzing data, presenting data communicatively, oral and written expression; (b) **Meta-cognitive competencies**, such as self-reflection and self-
evaluation; (c) **Social competencies**, such as leading discussions and conversations, persuading, cooperating, working in groups; (d) **Affective dispositions** (e.g., perseverance, internal motivation, responsibility, self-efficacy, independence, flexibility, or dealing with frustrating situations.) (Birenbaum, 1996, p. 4). (p. 532-3).

**Constructivism.** The new educational paradigm, which includes demands for both an academic education and skill set of authentic learning competencies, calls for new strategies of teaching and learning. One learning theory, constructivism, has gained a foothold in education (including traditional higher education) within the past fifteen years.

Constructivism holds that, for learning to occur, we “construct our own understandings of the world in which we live” (Brooks & Brooks, 1993, p. 4). Biggs (1999) explained that people construct new learning based on their past experiences, motives, and intentions. In short, learning is inherently personal, built sequentially upon a scaffold of experiences, deepening in complexity as people develop and gain new information and understandings.

Learning is thus a way of interacting with the world. As we learn, our conceptions of phenomena change, and we see our world differently. The acquisition of information in itself does not bring about such a change, but the way we structure and think about that information does. Thus, education is about conceptual change, not just the acquisition of information. (Biggs, 1999, p. 13)

Constructivist learning theory is not new. At the turn of the century, educational philosopher John Dewey embraced constructivist theory, explaining that humans learn best by doing (authentic, “real life” learning). Cognitive psychologists, such as Jean Piaget and L.S. Vygotsky, have long espoused the constructivist theory of learning. In 1969 Piaget said students learn better when they can articulate knowledge through inquiry and experimentation, instead of passively acquiring facts. Vygotsky (1978) emphasized the role of social interactions in the construction of knowledge. Although learning has been the subject of research by psychologists for most of the twentieth century, Biggs (1999) explains, it wasn’t until the mid-Seventies that such research began to focus on how students learn. Constructivism is one of two main learning theories (phenomenography is the other) used in the now substantial body of research on student learning.

While constructivist theory has its roots in cognitive psychology, the instructivist approach to learning (forms of which are used primarily in traditional educational classrooms today) evolved from behavioral psychology, specifically the 1970’s Skinner model. There are very distinct differences in the way the two approaches view the learning process. In the constructivist classroom, students are required to be “active learners,” meaning that they engage more in self-directed, experiential learning; reflect on their individual learning process, and have more learner autonomy (Merriam & Caffarella, 1999). Students are encouraged to ask questions, use their prior knowledge and experiences to develop theories, as well as work in groups. Constructivist teaching requires that instructors be partners with students in their learning, that they actively solicit students’ points of view, as well as provide for them learning experiences that are relevant to the world outside the
classroom. “In the constructivist approach, we look for not what students can repeat, but what they can generate, demonstrate, and exhibit” (Brooks & Brooks, 1993, p. 16).

The instructivist approach to learning, on the other hand, is “teacher-centered,” with the teacher viewed as the sole source of knowledge. Students are considered passive receptors for this knowledge, performing learning tasks as isolated pieces that must later be assembled. Instructivist teaching strategies rely more on lectures, drill and practice, and review. The curriculum relies on textbooks rather than first-hand sources of data and manipulative materials, and adherence to coverage of content rather than concepts (“breadth over depth”). Students are motivated to learn by extrinsic goals (such as a grade), and there is emphasis on memorization of facts (Brooks & Brooks, 1993; Fardouly, 2000).

Learning communities. The use of a learning community model has emerged as one way for traditional higher education institutions to make the shift from instructivist to constructivist classroom practices, and facilitate students’ mastery of authentic learning competencies (MacGregor, 1993; Shapiro & Levine 1999). A learning community is defined as

Any one of a variety of curricular structures that link together several existing courses—or actually restructure the material entirely—so that students have opportunities for deeper understanding and integration of the material they are learning, and more interaction with one another and their teachers in the learning enterprise. (Gabelnick, MacGregor, Matthews, & Smith, 1990, p. 19)

Learning communities are not a new concept, although their use has gained popularity and momentum on college campuses within the past decade (MacGregor, 1993). Their design is also solidly grounded in constructivist learning theory: MacGregor (1990) explained that the collaborative learning fostered by a learning community has its roots in experiential learning and student-centered instruction, as well as constructivist theory embraced by Dewey, Piaget, and Vygotsky. “They stressed how critical it is for the teacher not simply to transmit content but also to create a context where learners can discover on their own and successfully reconstruct their understanding of the world around them” (p. 21).

Assessment. Learning communities exemplify one way teaching and learning is shifting to accommodate constructivist practices. As teaching and learning is changing to embrace the authentic learning needs of the 21st century, there has been, especially in the past fifteen years, a national education reform movement as to how student learning should be assessed (Boud, 1990; Anderson, 1998; Dochy, Moerkerke & Sluijsmans, 1998). Brooks and Brooks (1993) pointed out that within a constructivist framework, assessment of student learning should be interwoven with teaching. In a traditional, instructivist framework, however, “assessment of student learning is viewed as separate from teaching and occurs almost entirely through testing” (p. 17).

This new role of assessment as a “partner” in the learning process, so to speak, has spawned what is called alternative assessment. This new assessment has many forms, including self-, peer- and co-assessment, observations, portfolios, and project or product assessments (Boud, 1990; Dochy & McDowell, 1997; Anderson, 1998). The difference
between alternative and traditional assessment is distinct. Traditional assessment, comprising multiple-choice and standardized tests and grades, postulates that the student is a passive learner, a receiver of knowledge and—consistent with instructivist practices—that the teacher is in an authoritarian role in making judgments on the learner. Learning is seen as an individual process. Traditional assessment is value-free and neutral (Anderson, 1998) and focuses on assessing “surface learning,” which includes rote memorization, recitation of facts, and extrinsic motivation. Its relationship to learning is hierarchal (Boud, 1990).

Alternative assessment, on the other hand, is collaborative. It is based on the assumption that the student is an active learner and—consistent with constructivist practices—students are partners with teachers in making judgments about their own learning. Alternative assessment is subjective and value-laden, and focuses on assessing “deep learning,” tenets of which include the ability to relate new and previous knowledge and theory to experience; learning as an active process; group work; reflection; and intrinsic motivation (Anderson, 1998; Fardouly, 2000). Dochy and McDowell (1997) explain that alternative assessment “encourage students to engage continuously and foster a deep approach to learning. Key elements of these approaches are reflection, feedback and integration of learning and assessment” (p. 279).

Self-assessment. Self-assessment is one form of alternative assessment that allows students to make judgments on their own learning, as well as reflect upon that learning. Self-assessment refers to

…the involvement of learners in making judgments about their own learning, particularly about their achievements and the outcomes of their learning. Self-assessment is formative in that it contributes to the learning process and assists learners to direct their energies to areas for improvement, and it may also be summative, either in the sense of learners deciding that they have learned as much as they wished to in a given area, or, in formal institutional settings, it may contribute to the grades awarded to students. (Boud & Falchikov, 1989, p. 529)

The ability to assess one’s own work is seen as a necessary “real world” skill that workers in the 21st century need to possess. It is also a way for students to develop metacognitive, authentic learning competencies. Engaging in self-assessment may develop reflective practice, as well as foster deep learning in general (Boud, 1990). Brooks and Brooks (1993) explained that one of the most valued tenets of constructivist practice is deep introspection into one’s own learning process.

From the faculty or institutional point of view, self-assessment gives students more responsibility for their own learning. Implementing it “may decrease the time-investment professors would otherwise need to make in more frequent assessment” (Dochy & McDowell, 1997, p. 284). Self-assessments also “guide students in making decisions about what they know and what they need to learn, which influences what tasks they will complete next” (Anderson, 1998, p. 11).

Statement of the Problem

The problem is twofold: (a) In the traditional higher education environment, there is often a mismatch between the constructivist practices used to teach authentic learning
competencies, and the instructivist, traditional methods used to assess whether or not they are occurring in student learning. Higher education institutions have formed learning communities based on constructivist practices to facilitate students’ acquisition of authentic learning competencies; nevertheless, traditional rather than alternative assessment measures are more often used to assess students’ learning within them; (b) Traditional higher education institutions still largely underutilize self-assessment as a means of evaluating what students have learned.

Use of traditional assessment to assess student learning within a constructivist learning environment is a mismatch. As Anderson (1998) asserted, “constructivism supports alternative assessment practices that are at odds with traditional instruction and assessment” (p. 7). She also asserted that in traditional classrooms, acquisition of behaviors and skills are the goals of instruction. In the constructivist classroom, the goals are development of concepts and deep understandings. “Unfortunately, traditional assessment does not evaluate this form of instruction” (p. 7). Despite a growing body of research, traditional assessment still dominates in higher education (Boud, 1990; Wiggins, 1993; Dochy & Moerkerke, 1997; Reynolds & Trehan, 2000). Moore (1993) asserted that learning communities, by design, have been created by universities as a way to “re-vision” approaches to learning in the classroom, including critical thinking, connection-making, and involvement in one’s own learning process. Such complex goals, however, “often lead faculty and institutions to use readily accessible academic indicators–grade-point average, student persistence–as proxy measures, assuming that such indicators correlate strongly with progress toward more complex outcomes” (p. 4).

Further, despite the usefulness of self-assessment to give faculty “a richer assessment window than more traditional and standardized approaches on a wide range of outcomes seen as essential to a college education but often difficult to assess” (Moore and Hunter, 1993, p. 66) it is largely under-represented as an assessment tool in the traditional higher education environment (Williams, 1992; Boud, 1990; Rawson, 2000).

**Research Question**

This qualitative study addresses the question: In what ways does self-assessment evaluate students’ authentic learning competencies within a learning community situated within a traditional higher education environment?

This study examines self-assessments done during Fall quarter, 2000, by students in Western Washington University’s Freshman Interest Group (FIG) Program. This study is significant because it will examine the use of self-assessment (a form of alternative assessment) as a way to evaluate whether or not students are acquiring authentic learning competencies. Further, the study will examine possible uses of self-assessment within a traditional higher education learning community, where its use to evaluate student learning is still often under-valued and under-explored. Of equal significance is the fact that, until this study, assessment measures used for the FIG program consisted only of traditional assessment measures, including GPA’s and “fill in the bubble” surveys aimed primarily at gathering data on program efficacy.
Assumptions

This researcher assumes that, ostensibly, teaching is about learning. Traditional higher education institutions are forming learning communities based on constructivist practices, with facilitation of students’ deeper learning and acquisition of complex (authentic) skills as the goal. When it comes to selecting assessment tools, however, they most often rely upon instructivist, traditional methods such as GPA’s, retention or student satisfaction data as ways to measure student learning. The researcher also assumes that, if, institutions are to fully embrace the new teaching-learning paradigm, teaching and assessment cannot be viewed as separate and distinct functions. As traditional higher education institutions re-vision teaching practices to encourage deeper, more authentic learning, they must commensurately re-vision their assessment practices to include more appropriate, interwoven, alternative assessment tools.

Limitations

There are several factors that limit this study. First of all, the authentic learning competencies as defined here were not stated as the Seminar learning outcomes. Seminar learning outcomes were established and made available to students, however, and did encompass many of the cognitive competencies as defined in this study. Second, the self-assessment data was collected prior to the commencement of the formal study. However, the data was neither examined or analyzed by the researcher nor discussed with anyone.

Finally, teaching students how to do self-assessment was not embedded in the FIG model. Expecting students, particularly first-quarter freshmen, to view themselves and their work in a metacognitive way cannot be assumed (MacGregor, 1993). Boud and Falchikov (1989) explained that: “It is becoming increasingly recognized that in order to develop this (self-assessment) skill more widely, explicit attempts need to be made to develop the capability, and opportunities need to be given for it to be openly practiced” (p. 530).

Definition of Key Terms

Authentic learning competencies. (a) Cognitive competencies such as problem-solving, critical thinking, formulating questions, searching for relevant information, making informed judgments, efficient use of information, conducting observations, investigating, inventing and creating new things, analyzing data, presenting data communicatively, oral and written expression; (b) Meta-cognitive competencies, such as self-reflection and self-evaluation; (c) Social competencies, such as leading discussions and conversations, persuading, cooperating, working in groups; (d) Affective dispositions (e.g., perseverance, internal motivation, responsibility, self-efficacy, independence, flexibility, or dealing with frustrating situations.) (Birenbaum, 1996, p. 4). (Dochy, Moerkerke, & Sluijsmans, 1999, p. 532-3)

Constructivism. Constructivism posits that learners construct their own knowledge from their experiences. Constructivism requires students to be “active learners,” meaning that they engage more in self-directed, experiential learning, reflect on their individual learning process, and have more learner autonomy. Constructivist classroom practices include asking questions, teacher as partner with the student, working in groups, emphasis
on intrinsic motivation, and assessment interwoven with instruction (Brooks & Brooks, 1993; Merriam & Caffarella, 1999).

**Learning community.** Any one of a variety of curricular structures that link together several existing courses—or actually restructure the material entirely—so that students have opportunities for deeper understanding and integration of the material they are learning, and more interaction with one another and their teachers in the learning enterprise. (Gabelnick, MacGregor, Matthews, & Smith, 1990, p. 19)

**Self-assessment.** . . . the involvement of learners in making judgments about their own learning, particularly about their achievements and the outcomes of their learning. Self-assessment is formative in that it contributes to the learning process and assists learners to direct their energies to areas for improvement, and it may also be summative, either in the sense of learners deciding that they have learned as much as they wished to in a given area, or, in formal institutional settings, it may contribute to the grades awarded to students. (Boud & Falchikov, 1989, p. 529)
Literature Review

Several questions frame this literature review: In what ways does use of traditional or alternative assessment impact students’ acquisition of authentic learning in college? How have learning communities affected student learning? What does the literature say about self-assessment, and, in particular, the ways it can be used to assess authentic learning?

Literature on authentic learning was limited primarily to those conceptual analyses, literature reviews or original research that identified ways in which assessment impacted students’ learning of authentic learning competencies (also called student learning outcomes, or 21st century skills). Literature on learning communities was limited primarily to first-hand research on how learning communities facilitate collaborative learning and/or impact student learning. In order to give an adequate overview of the literature landscape on self-assessment, concept papers, literature reviews, and quantitative and qualitative studies on self-assessment in higher education were included.

Assessment Impacts on Authentic Learning

A wide range of studies over the past 25 years has established how many aspects of the learning environment (out-of-class experiences, classroom practices, and assessment, to name a few) impact the ways students acquire authentic learning (Entwistle, 2000). Barr and Tagg (1995) first introduced the idea of a shift from teacher-centered to a learner-centered approach in higher education (Angelo, Ewell, & Lopez, 1999). While teaching and learning practices in colleges are shifting to accommodate the new learner-centered paradigm (the formation of student learning outcomes and use of learning communities, for example), the re-visioning of assessment practices, by and large, is lagging behind (Boud, 1990; Williams, 1992; Stefani, 1998; McMahon, 1999). Boud (1990) argued

Many current assessment practices are incompatible with the goals of independence, thoughtfulness and critical analysis to which most academics would subscribe. . . . There is evidence to suggest that the assessment policy of many departments undermines deep approaches to learning on the part of the students. (p. 101)

Over the past 20 years, Boud (1990) said, there has been a growing body of research on the relationship between assessment and learning. He cited some key studies, including: Black (1969), “students are assessed on those matters on which it is easy to assess them, and this leads to an over-emphasis on memory and lower-order skills” (p. 103); Ramsden (1988), who explains students’ approaches to learning are influenced by assessment tasks; and Elton and Laurillard (1979) who explain assessment encourages students to focus on those topics which are assessed at the expense of those topics which are not.

McMahon (1999) expressed a stronger sentiment that is growing among educators, that the mismatch of instructivist assessment to measure students’ authentic learning does more harm than good, creating a general conformity among learners that actually hinders critical thinking. This relational aspect of students to assessment, and assessment to learning has been explored in several studies. Dochy & McDowell (1997) expressed the view that using alternative assessment to assess deep learning will actually have a positive backwash
effect on instruction, leading to increased teaching of such skills. In 1998, Sluijsmans, Dochy and Moerkerke analyzed 62 studies on alternative assessment, and concluded that implementing forms of it into the higher education curriculum accelerated development of a competency-based curriculum (knowledge as a tool, not as a goal) and that it led to the integration of instruction and assessment.

In 1998 Sambell and McDowell did research involving 13 case studies on students’ perceptions of their learning, when they used different types of alternative assessment rather than traditional assessment. The researchers believed that assessment is a powerful factor in determining the “hidden curriculum,” one that drives what students choose to study and how and what they learn. They theorized that students’ perspectives on assessment are significant, both because “conventional assessment has been frequently criticised for embodying a sub-text which communicates the ‘wrong’ messages to students… ‘creating’ the problem of the hidden curriculum” (p.2), and because “assessment reform has frequently been proposed as a means of better aligning actual experience with the official curriculum” (p. 1). Results showed that

. . . students consistently expressed views that the new assessment motivated them to work in different ways; second, that the new assessment was based upon a fundamentally different relationship between staff and students, and third, that the new assessment embodied a different view of the nature of learning. (Sambell & McDowell, 1998, p. 5)

One case study involved removing a traditional exam in a technology class, and replacing it with an open-book paper. Staff emphasized to the students the need to understand concepts, rather than recollect and regurgitate the materials. While interviews with students revealed variations in their individual approaches to the new form of assessment, it was also clear that students were aware of having to learn more independently, rely less on the lectures, and undertake wider reading. “The activities they described suggested that the general reading of assessment requirements had led to a shift towards a deep approach to learning” (p. 9).

Both Williams (1992) and Stefani (1998) also did studies that explored students’ attitudes toward learning, as well as their attitudes toward being treated as partners with instructors in the assessment process. Both studies reported students liked having greater autonomy over their learning, found they felt encouraged to learn more, but that they also needed guidance in understanding/creating assessment criteria. Stefani (1998) also noted a somewhat “chicken-and-egg” approach in the way higher education treats students in the authentic learning process: it’s generally accepted that one of the goals of higher education is the development of autonomous, lifelong learners; yet it’s implied that students must already have the capacity to reflect upon and evaluate their own work.

Tangible evidence that higher education is lagging behind in using appropriate assessment measures to determine student authentic learning was also clearly illustrated in a recent survey of 230 community colleges in the U.S. and Canada (Wilson, Miles, Baker, Schoenberger, & Lawrence, 2000). The focus of the survey was to determine the status of the colleges’ implementation of 21st Century Skills (also referred to as student learning
outcomes). More than 90 percent of the colleges indicated their colleges are addressing issues of incorporating 21st century skills into the curriculum. However, the study also showed that in general, the institutions lacked consensus on clear definitions of 21st Century Skills as well as ways to know they are occurring in student learning.

Only about 5% of colleges reported having fully implemented documentation processes for student achievement of 21st Century Skills in ways other than grades and course credit. Another 34% indicated partial implementation of nontraditional documentation processes. Approximately 44% of respondents said such activities are in the discussion and planning stages, while 17% indicated they are not addressing documentation other than through grades and course credit. (Wilson et al., 2000, p. 24)

The survey showed that the use of measures other than grades or course credit to document student learning must occur, if students are to have a record and understanding of what they’ve learned, or for the institution to be able to show the world-at-large that students are acquiring authentic learning competencies, and that the greatest barriers to fully integrating learning outcomes in the community college entail time and assessment issues.

In conclusion, it is clear from the literature that use of alternative assessment has impacts on how students acquire authentic learning in college. Over the past 20 years there has been a growing body of research on the relationship between assessment and learning. Because students tend to study what they will be assessed on, use of traditional assessment (with its emphasis on memorization of facts) can hinder students’ development of deep learning. Use of alternative assessment can not only facilitate the teaching of authentic learning, but can cause students to shift to taking a deeper approach to their learning. Further, students have indicated a preference for having greater autonomy in their work. Finally, higher education is lagging behind in implementing assessment measures that adequately assess stated goals of authentic learning.

Learning Communities

According to MacGregor, Tinto and Lindblad (2000), within the past few years the use of learning communities on college campuses has grown considerably. The Washington Center for Improving the Quality of Undergraduate Education has taken the lead in compiling and being a resource for studies on learning communities. The current body of research on learning communities seems to establish their efficacy in facilitating constructivist learning practices (active learning, group work, meaning-making, etc.), as well as positive impact on student GPA’s, retention and satisfaction (MacGregor, 1999; MacGregor et al., 2000). However, MacGregor et al. (2000) explained that because many of the learning communities that have been started within higher education institutions start out as grassroots efforts, built from the ground up, “program innovators are therefore not only inventing new curricula and exploring new pedagogies but also often taking on evaluation responsibility as well” (p. 43). Because of this, there are still gaps in the literature on learning communities, including their effects on gender, ethnic groups, and transfer students, and what brings about intended and unintended results.
In 1998, a compendium of evaluation research on first-year seminars at 50 colleges in the U.S., done from 1995–1997 was published by Barefoot, Warnock, Dickinson, Richardson, and Roberts. The study, *Exploring the Evidence: Reporting Outcomes of First Year Seminars: The First Year Experience* included research from a variety of learning community models used for Freshman Interest Groups (FIGS), some more integrated than others. In general, FIGS include a small seminar somehow linked to other, larger courses, with the curriculum of the first-year seminars varying widely. The studies on the first-year programs ranged from academic achievement/grade point averages, student adjustment/involvement, and student satisfaction, to program efficacy (effects on faculty, retention rates, financial outcomes, instructional models, etc.). While the studies on student grade points showed seminar students are doing better in comparison to control groups, there is no real data on students’ authentic learning. Two studies—Rockford College and Washington State University—used alternative assessment measures. Rockford administered a self-assessment before and after the seminar, which, using a five-point Likert scale, asked students to rate their abilities on authentic learning outcomes (defined as participation in class, listening to others in order to relate personal thoughts to their comments; being an inquisitive and curious thinker, etc.). In some cases, students rated themselves lower on items than they had at the beginning of the seminar; researchers say generally, the results are inconclusive but may indicate “students more realistic understanding of their academic strengths and weaknesses” (p. 55). At Washington State University, students were given the Flashlight Survey, a self-assessment measure used to help students evaluate their learning within the seminar. Flashlight Survey results showed students believed they had made gains in cognitive, affective and social ways of learning as a result of the seminar.

It’s clear from the literature that while there is a growing body of research on the efficacy of learning communities, the occurrence of student learning within them remains relatively under-explored. Further, research into student learning within learning communities predominantly relies on quantitative measures such as student GPA’s and retention data. There are far less studies on use of alternative assessment measures within learning communities to assess student learning: some studies that incorporate self-assessment will be reviewed in the next section.

**Self-Assessment: an Overview**

The majority of influential studies on self-assessment in higher education have been done by David Boud, a professor at the University of New South Wales in Sydney, Australia. Stefani (1998) credited Boud and his colleagues with having a strong influence on current thinking among educators on the role of assessment in partnership with students. A large number of studies on self-assessment done in recent years cite Boud’s key research, which began in the early 1980’s. Nancy Falchikov, who did much of her work on self-assessment in collaboration with Boud, presented researchers “with one of the first pragmatic and adaptable models for the introduction of what she termed collaborative self, peer and tutor assessment” (Stefani, 1998, p. 340). Stefani (1998) said that looking back at the self-assessment literature in the late 1980’s and early 1990’s showed an abundance of published studies that used complex quantitative measures on the validity of self-
assessment. While the effect was to reduce the concepts of student learning and empowerment to statistical data, Stefani added, those studies also did prove useful in raising the awareness among educators of collaborative assessment procedures.

Boud (1989) claimed that while literature on student self-assessment goes back for more than 50 years, it’s only been in the past few decades that it has been seriously studied and used for both learning and grading purposes. He noted that, despite the fact that lifelong learning requires individuals to be able to evaluate their own work, it’s surprising that no major work in the area of self-assessment was done until he and Nancy Falchikov’s 1989 analysis of quantitative studies. Also, the studies on self-assessment prior to that had widely varied results and little cross-referencing between them.

**Self-assessment for grading purposes.** In that 1989 critical analysis of findings mentioned above, Boud and Falchikov examined 48 quantitative studies that researched student self-assessment in relationship to teacher marks. There was a wide variety of “elementary weaknesses among the studies examined” (p. 533). These flaws included different marking criteria used by teachers and their students, and/or different rating scales. In general, results were unsurprising: more mature, advanced-level students tended to rate themselves more accurately than less mature, less advanced students. Because of the paucity of research on whether students’ ability to self-assess would improve with practice over time, and on gender differences, no conclusions could really be reached in these areas.

Boud and Falchikov (1989) tested their findings in the critical analysis by another study, one that used a meta-analysis. This methodology was able to clarify some salient variables, and thus come up with a description of findings that is more clearly delineated than the earlier study. For one, “senior students taking introductory courses appear not to self-assess significantly better than do first-year students” (p. 425). Second, “studies within the broad area of science appear to produce more accurate self-assessment than do those from other areas of study” (p. 425). Of importance, too, is that the meta-analysis showed more concretely

Self-assessment may be regarded as a skill and, as such, needs to be developed. It has been suggested that good assessment practice, whether ratings made by students or teachers, should include training of assessors. This meta-analysis points to areas where such training might be particularly relevant. . . . Self-assessment can be a valuable learning activity, even in the absence of significant studies about both learning and educational and professional standards. (p. 427)

Some research concluded that the creation of a framework for self-assessment can be useful in reaching an agreement between student and teacher on marking (grading) criterion, and can provide potent feedback to students as they learn to self-assess (Boud, 1992, Adams & King, 1995). Such frameworks can help mitigate frustrations and challenges for students in attempting to do self-assessment, help them rate themselves more accurately, and help them engage more fully in their learning.

**Self-assessment’s role in fostering reflective practice and as a tool for learning.** As was discussed in Chapter One, the ability to reflect on one’s work and self-evaluate is identified as both an authentic learning competency, and, according to constructivist theory,
a vital component of the learning process. In a review of 63 studies on alternative assessment (including self, peer, and co-assessment) Dochy, Segers and Sluijsmans (1999) concluded that findings bode well for the use of self-assessment in educational practice. Students who engage in self-assessment tend to get higher test scores; self-assessment also promotes learning by leading students to do more reflection on their work and set higher standards for their work; and the ability to self-assess, especially when teachers give students feedback, improves over time.

Some other studies of smaller scale looked at self-assessment for grading purposes, but also explored its role in facilitating learning and reflection among students within higher education classrooms (Williams, 1992; Sullivan & Hall, 1997; Orsmond, Merry & Reiling, 1997; Stefani, 1998; Zoller, Fastow, Lubezky, & Tsaparlis, 1999). All came to very similar conclusions: students tended to grade themselves higher than would the instructor; the act of self-assessment is viewed by students as making them think more and be more critical of their work; students find challenges inherent in doing self-assessment (students need understanding of their role as active learners in partnership with the instructor, and more opportunities to practice doing self-assessment). One study on graduate students within an experience-based graduate program by Mariena (1999) looked explicitly at the connection between students’ ability to perform self-assessment and their performance in the workplace. She found that as students’ ability to self-assess grew, it had direct and positive impacts on their ability to learn from experience; reflect on those experiences; make a stronger commitment to workplace competence; and make better evaluations on their performance. Finally, Mariena said the students repeatedly voiced how, their use of higher order thinking skills within the workplace (goals, interpersonal relations, critical reflection, and value-based decision-making) were developed and refined through self-assessment.

The use of self-assessment to evaluate authentic learning competencies. In general, there are very few studies that specifically examine self-assessment as a way to assess authentic learning competencies, in relation to studies that look at its uses for grading purposes and developing reflective practice. There seems to be, however, many conceptual articles on self-assessment’s perceived value in assessing “deep learning,” as well as discussion of its role in constructivist classroom practices.

The studies on use of self-assessment to evaluate ways authentic learning occurs for students have by and large been conducted within learning communities. Waluconis (1993) explained that self-assessment is frequently incorporated in a wide variety of learning community curricula. According to Moore (1993) formal research in its use to assess authentic learning is really just beginning. To date, student self-assessment has been used to determine the occurrence of students’ learning in three ways: “broad learning outcomes, intellectual development, and writing or rhetorical effectiveness” (p. 70).

Students’ intellectual development is determined by evaluating self-assessments with the Measure of Intellectual Development (MID). The MID is based on the Perry Scheme of intellectual and ethical development, and “is a particularly appropriate framework to use, both for assessing and for understanding collaborative learning” (Moore, 1993, p. 5). The MID is administered through an open-ended student self-assessment and is scored by trained
raters. Moore (who has rated a number of studies using the MID) believes it is particularly appropriate for use within collaborative learning environments, because the Perry Scheme reflects the basic tenets of constructivist learning.

... evolving meaning-making about knowledge (learning), self (and peers) and authority (i.e., the teacher). ... knowledge is seen as increasingly conjectural, uncertain, and open to interpretation—thus demanding a focus on analysis, critical thinking, and integrative connection-making. (Moore, 1993, p.6)

During 1986–87, the MID was administered to students in freshman level learning communities in eight Washington state colleges (MacGregor, 1987). The learning community programs were all—except for one—composed of a mix of students directly out of high school and older, returning adults. One program (Tacoma Community College–The Evergreen State College BRIDGE program) was only for older, returning adults, particularly people of color; the Matteo Ricci group at Seattle University was only for students 16–18 years of age. The types of learning communities included coordinated studies, federated programs (clusters of three inter-related courses, with a weekly seminar); and a standard course within a larger learning community (Matteo Ricci). The programs at The Evergreen State College lasted for three quarters; all others were one quarter each. Despite the differences, all the coordinated studies learning communities operated at (in Perry’s terms) the “late multiplicity” stage, where diverse viewpoints, building connections, use of supportive evidence, qualitative evaluation and self-awareness in the learning process are encouraged.

In six programs, where a “pre” and “post” self-evaluation was given, the MID rating was very encouraging: the majority of students exhibited a positive change (one-third or more position gain) in intellectual development on the Perry scale. MacGregor (1987) described the gains as “comparable to a Swarthmore College freshman year-long class, and to a semester-long program in the Honors Learning Community at the University of Maryland” (p. 5). The results of this study are tentative, however; the study was set up as exploratory only, and some of the MID essay topics may have had built-in bias. The MID topics asked students to describe their recent experiences in the learning community, and the students, fresh from a presumably enjoyable learning environment, may simply have parroted back their satisfaction.

In fall 1989, the MID was given to 75 students enrolled in the QUANTA learning community at Daytona Beach Community College (Avens & Zelley, 1990). QUANTA is an interdisciplinary learning community comprising seventy-five students and three faculty. It is a semester-long program that integrates English, Psychology and Humanities around a central theme, emphasizes making connections, and active and collaborative learning. The researchers hypothesized that “participation in this collaborative active learning environment will result in greater movement along the Perry scale of intellectual development than is usual in traditional classes” (p. 2). Seventy-six percent of QUANTA students showed a positive change of one-third of a position on the Perry scheme. Further, a comparison of MID scores for QUANTA students with national norms established by Moore “was greater
in one semester (.20) than the mean change of position of students in the normative sample (.18) after four years of college” (Avery & Zelley, 1990, p. 3).

Seattle Central Community College, for one, has been a leader in using self-assessment to evaluate ways authentic learning may be occurring within its learning communities. Results from studies there have shown that students, without being prompted, identified and described the ways their own learning correlated with the learning outcomes that had been established by the college (Waluconis, 1993; Moore, 1993; MacGregor et al., 2000).

It would be remiss to discuss self-assessment for use in assessing students’ learning outcomes or authentic learning competencies without mentioning that handful of institutions that rely on student self-assessment as its sole measure of assessment. Three notable schools are Alverno College in Milwaukee, Wisconsin; and The Evergreen State College and Fairhaven College, both in Washington. All have an interdisciplinary focus, and have established student learning outcomes. Students are taught throughout their respective four-year programs how to engage in self-assessment. Alverno, in particular, is considered a leader in higher education in use of self-assessment, and has conducted extensive research, as well as developed a comprehensive framework of self-assessment (Loaker, 2000). Dochy et al. (1999) explain that at Alverno, assessment is at the heart of the educational process, and since self-assessment has been integrated into students’ problem-solving processes, they show “increasing understanding of interrelationships of ability, content, and context. . . . They gradually internalise their practice of problem-solving and their ability to self-assess” (p. 7). The viability of these colleges demonstrate what the literature tells us: given the time to learn how to self-assess, the empowerment by faculty to have a say in their learning, and an agreed-upon framework for self-assessment, students can use it effectively to both reflect upon and evaluate their learning.

Self-Assessment Conclusions

There appear to be some strong themes in the self-assessment literature: (a) self-assessment has potential use for grading, but students generally over-rate themselves and need to understand grading criteria; (b) there are strong implications for self-assessment as a tool for learning and as a way to enhance reflective practice; (c) almost every study found that students do not inherently know how to self-assess, and, while students in general like using it, they also find it challenging; (d) there are some studies that use self-assessment to evaluate students’ authentic learning competencies, particularly within learning communities, but the number is small and more research needs to be done.

It is clear that self-assessment is largely under-valued as an assessment tool in the traditional higher education environment (Boud, 1990; Williams, 1992; Moore & Hunter, 1993; Rawson, 2000). Its use in innovative efforts such as learning communities is still tentative and evolving. For self-assessment to be effective, educators must begin to value it. Perhaps this perception within traditional higher education that self-assessment is not a particularly valuable assessment tool explains why, as Marienau (1999) stated, that educational research on self-assessment lags behind that done in other fields.
In spite of the centrality of self-assessment in learning and meaning-making processes, it has occupied relatively little space in the research literature of adult learning. Noted exceptions include the work of Boud (1986), which focuses on implementing self-assessment. In addition, MacGregor (1993) describes self-evaluation as a tool for learning and offers illustrations of various educational program practices. Yet other related fields recognize the importance of self-assessment and depend upon it to contribute both to individual growth and development and to effective performance in the workplace. (p. 50)
Methodology

Research Design

For this study, a qualitative mode of inquiry was predominantly used. Creswell (1994) explains that qualitative methods are generally supported by the constructivist paradigm, which portrays a world in which reality is socially constructed and subjective, value-laden, and biased. This study takes that world, with all its shades of gray, into account. The Seminar students’ self-assessments of the ways they may have acquired authentic learning competencies could not be examined separately from the social context of their learning community; nor without the nuances of the students’ own voices. The patterns and themes of their responses were allowed to emerge naturally and evolve as the study took shape. Gabelnick et al. (1990) explain that while quantitative measures can demonstrate student retention and academic achievement, “they do not adequately illuminate what happens to students in learning communities” (p. 66).

Further, analyzing students’ self-assessment with qualitative methodology is appropriate. J. MacGregor (personal communication, January 31, 2001) says there are three ways self-assessments can be analyzed for evidence of student learning: (a) For qualitative analysis of themes; (b) For student intellectual development; (c) For quality of writing (by standards of a writing teacher).

This study includes research that is both qualitative and quantitative in nature. In all, three sources of data were used: (a) the students’ self-assessments; (b) written comments on the usefulness of the self-assessments from Seminar faculty; (c) and a quantitative survey given to Seminar participants at the end of the course. This triangulation of data was done both to gain perspective on the research findings, and to help neutralize any potential researcher bias. Both the viewpoint of Seminar faculty and the quantitative statistics gathered from students at the end of the course act as a good check-and-balance system to the interpretation of the students’ perceptions of their learning and the Seminar in general. As noted by Creswell (1994), triangulation of data can facilitate convergent or complementary results, either of which can add dimension and detail to the study.

Research Participants

At the beginning of Fall Quarter, 2000, approximately 300 students enrolled in seven different FIG course clusters, as part of Western Washington University’s Freshman Interest Group (FIG) program (see Appendix A). Each course cluster consisted of two, linked General University Requirement (GUR) courses, and a Seminar component. There were two sections of the Seminar for each of the seven course clusters, for a total of 14 Seminars. In actuality, the Seminar was composed of two, integrated parts: Communication 197 and Library 197. Students met for Seminar twice a week, once for Communication 197 and once for Library 197, and instructors for both were expected to communicate with each other regularly. Communication 197 was taught primarily by graduate students, although two Western faculty members and one staff member were also Seminar instructors. Library 197 was taught by Library staff. It was the first time the Seminar curriculum had been taught,
and inherent in its design was an emphasis on small group work, critical analysis, active learning, and connection to the two large lecture courses, with the Seminar instructors acting as partners with students in the learning process. Specific, cognitive learning outcomes for both the Communication and Library pieces of the Seminar were established (see Appendix B).

The majority of FIG students were self-selecting, choosing and enrolling in a FIG cluster in the summer months prior to the start of the quarter. Sixty-five percent indicated they became aware of the FIG program by the mailer, which was sent to them upon admission to Western. Enrollment in each of the 14 Seminar sections was limited to 25. However, all spots were not taken, and the Seminars averaged 21 students per section. Final, total enrollment in the Fall 200 FIG program was 296.

Seminar students were 63 percent female, 37 percent male. Thirty percent indicated a high school GPA of 3.70–4.0; 45 percent indicated a GPA of 3.69–3.30. Thirty-one percent were from large cities (75,000 or more); 39 percent were from small cities (25,000–74,999). Statistics on ethnicity and age were unavailable at the time of this study.

Data Collection

Several instruments were used for the data collection process.

Self-assessment data. During the ninth week of the Seminar (Tuesday, Nov. 21) a self-assessment was administered to Seminar students in all clusters. Carmen Werder, Ph.D., Director of Interdisciplinary Curriculum and Assessment (as well as creator of the Seminar curriculum), designed the actual self-assessment, along with input from the graduate students who taught the Communication 197 section of the Seminar. The self-assessment involved using an entire, 50-minute class period for students to write about and reflect upon the learning they had done during the previous nine weeks. Through written instructions, the self-assessment prompt asked students to compare their current competencies in a number of areas to what they perceived their competencies to be at the beginning of the course. Students were instructed to review their first assignment, a letter that described their literacy history (reading, writing, speaking, listening, information seeking), as well as reflect upon what they hoped to learn in any of those areas. Specifically, the self-assessment prompt asked: “What concepts/strategies do you think you have gained for literacy, communication and inquiry as a result of this Seminar? And why might they be important to have?” Students were given examples of possible areas to consider when writing their self-assessments: reading texts, role of reading/writing/speaking/listening in inquiry; role of groups in inquiry, as well as connection(s) drawn between the Seminar and the two related GUR courses, and any applications of the skills they may have gained in the Seminar to other classes/learning situations. Students were asked in the self-assessment prompt to write at least one or two pages (250-500 words). They were also encouraged to “feel free to consider other areas” in writing about their learning, as well as encouraged to explain their learning with examples and details (see Appendix C).

Seminar faculty data. In order to gain perspective on what ways the self-assessment might or might not have been useful in assessing the ways students gained authentic learning competencies, nine Communication 197 faculty members were asked their opinion on the
use of the self-assessment. Specifically, they were asked: *In what ways did the self-assessments help you assess student learning? Did you see any patterns or themes in students' responses?*

**Seminar survey data.** Seminar students were also given a pre- and post survey by Western’s Office of Institutional Assessment and Testing. Two hundred and eighty-four students took the pre-survey; 175 took the post-survey. Students were asked on a “fill in the bubble” type survey instrument to rank various questions about their FIG experience by whether they strongly agreed, agreed, were neutral, disagreed, or strongly disagreed. Questions dealt primarily with student satisfaction, expectations, and social benefits of the FIG program in general (e.g., “Joining a FIG is worthwhile because of the friends/contacts I’ve made,” or “Overall, the FIG lived up to my expectations.”) Only post-Seminar survey results were consulted for this study (see Appendix D).

**Procedures Used**

Students were given the self-assessment by both Seminar Communication and Library faculty, either in Wilson Library 672, or Haggard Hall 245. Those students in the Wilson Library classroom wrote their self-assessment by hand; those in Haggard Hall were able to use computers, and were asked by faculty to turn in their self-assessments on the provided floppy disk, along with a hard copy. At the beginning of the self-assessment, instructors gave students in Wilson Library the option of going to the Haggard Hall classroom to do their assessment on a computer, subject to availability, and many students did that. Once all the self-assessment data was collected, it was compared with the Seminar rosters to determine who had participated. The rosters were also cross-checked to see who had turned in a written assessment, a copy on a disk, or both. Four self-assessments without names turned in on disks were discounted; also two disks were not returned to faculty and it is not known what data was on them. The final number of self-assessments received was 212.

The questions to Seminar (Communication 197) faculty on the value of the self-assessment were sent via email in early April 2001; approximately four months after the Seminar had ended (see Appendix E). Because most of the Seminar faculty were graduate students and had moved on to other things, there were only two responses, and a second email request was sent out the end of April. Of the nine faculty members asked for responses, there were a final total of four responses, all via email; the responses were then collected for analysis.

The post-Seminar survey was given to students during the last regular Communication 197 class meeting (either the Tuesday or Thursday the week before finals week) by Western’s Office of Institutional Testing and Assessment. Students were given approximately 20 minutes at the end of the 50-minute class period to fill out their responses, and then they left the surveys with the instructor. The surveys were sent via inter-office mail by the Seminar instructors to the assessment office. A total of 175 post-Seminar surveys were collected and analyzed by the office.
Data Analysis

For this study, not all 212 self-assessments were analyzed, because it was felt a smaller sample would be adequate to analyze for themes and patterns of response. Therefore, six self-assessments were selected randomly from each of the 14 Seminars, for a total of 84 self-assessments. Samples were drawn from across the clusters both to account for differences in instructors and to generally strengthen the internal validity of this study. A software program was used to generate random numbers for each cluster. The resulting numbers were assigned sequentially to the alphabetized names on each roster. If a student’s name was selected randomly but that student had not turned in a self-assessment, the next student on the list was selected, and so on, until there were six self-assessments per cluster. Although the self-assessments from the same cluster were kept together as one data file for this study, students’ names were removed from the data prior to analysis.

The selected student self-assessments were analyzed for patterns and themes, in order to determine in what ways they assess students’ authentic learning competencies within a learning community. This involved two phases of data analysis. First, the pool of data was read comprehensively so that themes and/or patterns, if any, would be allowed on their own to “bubble up” to the surface. Text that seemed to represent a pattern or theme was coded and tentatively categorized; when it became apparent a pattern of responses was emerging, text searches were done to bring up data that might possibly fit in that category. Those responses deemed relevant were coded and added to the categories. The categories were then examined for redundancy, relevance, and strength. Some categories were discarded; others were merged together or re-named to better describe the coded data they contained. Further, the strongest themes were cross-checked against each other to determine what, if any, inter-relationships might exist between them.

Secondly, the resulting themes were matched against a framework of authentic learning competencies, as defined in Chapter One. In what ways was a student’s self-assessment of his/her learning cognitive? Social? Affective? Metacognitive? What patterns of specific authentic learning competencies are shown?

The qualitative data analysis software, NUD*IST 4, was used to facilitate the data analysis process. NUD*IST (which is an acronym for Non-numerical Unstructured Data*Indexing Searching and Theorizing) allows the user to browse the self-assessments for themes and patterns; gives great flexibility in assigning coding; as well as evolving categories and themes as they emerge in the data. A manual on doing qualitative research using NUD*IST (Gahan and Hannibal, 1998) was referred to throughout the data analysis process.

Finally, the resulting faculty responses were analyzed qualitatively for any themes or patterns in the responses. Post-Seminar survey results (displayed as percentages) that are concerned directly with students’ perceptions of the Seminar experience and their learning in it, were analyzed for correlation with corresponding themes in the students’ self-assessments.
Findings

While some strong themes and dominant patterns did emerge in the Seminar students’ self-assessments, it’s probably best to begin with a discussion of what wasn’t found in their responses. First of all (as was established in the literature review) for students, the act of self-assessing, of reflecting upon one’s work and making a judgment on strengths and weaknesses, is not something they instinctively know how to do, and this held true for the Seminar students. Second, students were, for the most part, not comfortable nor familiar with the open-ended and collaborative learning model used in the Seminar.

The above are particularly challenging for entering freshman, who, according to MacGregor (1993) often arrive at college “expecting to accumulate—or in Paolo Freire’s (1970) term, ‘bank,’—knowledge given to them by textbooks and teachers” (p. 36). Many researchers point to the work of William Perry (1970), who explains that, developmentally, most beginning undergraduate students see knowledge dualistically, as something outside themselves. According to the Perry Scheme, students move developmentally from positions of dualism to early multiplicity, late multiplicity, and finally to contextual-relativism (constructivism) in their relationship to acquisition of knowledge. It is a huge stretch for most—if not all—of them to see knowledge as relativistic, and to view their work and self in the learning process in a metacognitive way. The self-assessments used in this study exemplify students’ dualism very well. Inexperienced at looking at their own learning, students’ writing (as shown by the example below) was predominantly a play-by-play recitation of course content, with general descriptions of learning:

As part of the first assignment, I was given the chance to write about my literacy history. We were to assess our past with literature in specific detail. At a particular point in the assignment we were asked to mention our past concerning material searching strategies. I think the library seminar was very helpful in getting me on track with new ways of searching for things. It was also very helpful with getting me acquainted with the Western Library. I've learned the communication of information has many aspects and can be presented in many ways. The tutorials on web pages and multi-media were very interesting and helpful . . .

The students’ inexperience with self-assessment was also evidenced by the strong pattern of comments they made on the negatives of the Seminar followed by almost-contradictory comments that elaborated on the ways they had learned. The self-assessment below exemplifies this pattern. The student describes how he learned in some very tangible and valuable cognitive and social ways: Yet—because the Seminar didn’t match his expectations of what he thought he should have learned—he remains focused on extrinsic factors and is largely unaware of the magnitude of his learning:

When I registered for this FIG seminar I had very different ideas about what the content would be. I have learned in this class about the inquiry process but very few connections between the GUR courses have been made. . . . I have gained knowledge about the details of the inquiry process but most of the things we have discussed I
already did when researching something. The exact process was something I hadn't thought of before. This attention to the process of inquiry did bring things to my attention. I realized how many times the focus of our inquiry shifted. Very rarely does an inquiry remain focused on what you expect it to. The more I questioned what we were looking at, the more I began to think of other angles to research. This seminar made me think about the actual process instead of just doing it. . . . Small group research allowed me to see other people's reaction to the same information and how we each interpreted the same question. . . . When I realized what the focus of this seminar was going to be, I thought that it might help me improve some of my communication skills. Unfortunately, I didn't find many of the activities that we did to be very helpful. But, I did enjoy having a small class that allowed me to find other people with similar interests.

The students as a group were also unclear, when they did recognize their own learning, on how to make an accurate judgment on their abilities, and exhibited a very low pattern of metacognitive ability in relating that learning to themselves. A number of students expressed surprise, that, in looking back on the course through the reflective act of doing a self-assessment, they discovered their learning had indeed increased.

Before the start of this class I was pretty satisfied with my literacy skills but now I have learned that there is still very much to learn and to get better at.

Looking back on my first draft of my literacy paper, I realize I was not portraying myself very accurately.

As I had said in my literacy letter, I believed that I was good at writing essays without having to write a lot of drafts. I believed I just had a talent for writing even though I don't even really like to write. I was wrong. I realized that I couldn't just write one draft and call it good.

I enjoy having to do the inquiry questions; it helps me with my literacy as well as my thought process. After writing this paper I realize that maybe my literacy has developed stronger skills since I have been in this class.

It was also quite obvious in the students’ responses that the open-ended “discovery” and collaborative model of the Seminar was not comfortable for them. The self-assessments in all clusters were sprinkled liberally with a litany of complaints and comments about the Seminar design. The Perry Scheme proved very useful, too, as a way of framing students’ comments about their perceived difficulties with the Seminar itself. Thompson (1991) cites Moore’s (1982, 1986) research, that most students start college at Position 2 (dualism) and in transition to Position 3 (early multiplicity) on the Perry scheme. At the early multiplicity stage, students are beginning to move away from the dualistic view that knowledge comes from authorities, and can be classified as right or wrong, true or false. They are just starting to see themselves as problem-solvers, but they still view methods for solving problems as
being separate and discrete, and see no connections as of yet among methods and domains (Thompson, 1991, p. 3).

The Seminar design, (similar to those of the learning communities discussed by MacGregor in her 1987 study) however, very definitely assumed a position of late multiplicity. In the late multiplicity stage, students move from “how to learn,” to “how to think” (Thompson, 1991, p. 3). Diverse viewpoints, building connections, use of supportive evidence, qualitative evaluation and self-awareness in the learning process are encouraged (MacGregor, 1987). Teachers at this stage are not sources of knowledge, but facilitators of knowledge, and students understand they have more autonomy over their learning.

The mismatch between students’ relatively lower positions(s) on the Perry scheme and the late multiplicity position implicit in the Seminar design was confirmed by students’ comments, which (dualistically) tended to focus on the extrinsic factors surrounding their learning (the Seminar design and FIG program), rather than focusing on their own learning and internal processes.

Theme 1: Expectations and barriers. The predominant theme of negatives was quite useful as a way to contextualize the students’ perceptions of their learning. Why and what didn’t they feel they learned? What barriers to their learning did they perceive? What were their expectations of the course, and how did those expectations shade what they perceived they did/didn’t learn? Students cited time constraints, too many assignments, and a confusing program design. Many students, as illustrated by the comment below, expressed disappointment as well as some apprehension that the Seminar did not emphasize the study skills they felt they need to acquire to succeed in college:

The connections between the seminar and the GUR lecture classes are not what I expected. I thought that the seminar class was basically going to be a study session and link the two GUR classes together. I didn't expect that we were going to be doing a project in a 2-credit class. Overall, this FIG cluster was a huge disappointment to me. I have not exactly learned what I would like to have learned in this FIG cluster, which would be a close basis with my teachers and the other staff and also close knit groups of friends. I have not received any help in my studying for large tests that are a huge part of my grade in other classes. With these bad study skills that I brought from High school, they have helped me receive low grades in two of my FIG classes, which will obviously bring down my GPA.

MacGregor (1990) explains that collaborative learning is “especially problematic for younger college learners. To them, the adjective "cooperative" has unfortunate residual connotations from high school. . . . Many students also have difficulty accepting that collaborative learning with peers is real learning and has value” (p. 26). This idea, as well, came out loud and clear in the pattern of student responses indicating that the Seminar was primarily a review of skills they’d already obtained in high school, or, that the Seminar setting itself was not what students expected of college.

To be perfectly honest, I do not feel like I have gained anything in literacy, communications and inquiry through this seminar. Everything that we went over in this class has been something I already knew through some prior experience.
The seminar is nothing more than a plethora of busy work that could be completed by anyone, regardless of his or her literacy. The assignments are dry and monotonous, covering areas that we already have studied in high school.

Inquiry questions? Literacy? We all sort of thought we were back in high school.

Although I feel this class was in a high school setting, it seemed most assignments were irrelevant to me personally. A lot of the information that was given I have already learned in high school . . . I feel this program could be a lot more useful to students if they were treated like college students.

The students’ inability to self-assess and dualistic relationship to learning was further clarified by the way their failed expectations about the Seminar (many had expected three small classes) often drove their self-assessment responses. Unsure how to self-assess, and seeing their own learning process as something dependent on external factors only, students’ responses often veered away from the prompt and tended to dwell on what they felt had hindered their learning. This certainly raises the question: If dualistic students’ expectations of a learning experience are not met, do those unmet expectations diminish or entirely displace their learning experiences?

Post-Seminar survey data and FIG faculty comments corroborate that students’ unmet expectations of the Seminar had an effect on students’ learning experiences. The post-Seminar survey data confirmed that over half of the students responding (34.9% disagreed; 17.2% strongly disagreed) that the Seminar had lived up to their expectations. All four faculty respondents spoke to the fact that students were feeling frustrated or confused by the Seminar; further, all found the student self-assessments particularly useful for formative evaluative purposes, as shown by the representative comments below:

The self-assessments were very helpful in identifying learning patterns and gaps in the instruction that needed to be addressed. For instance, during early assessments it was apparent that many students were feeling frustrated that very little had been explained about the final project. Many desired to know this information to place their research in perspective. Additionally, the self-assessments allowed me to initially identify interest areas for individuals and to later assist groups in tailoring those interests into a cohesive final project.

Finally, the assessments gave me insight into frustrations students were having with the overall FIGs structure that I could take back to the instructor team for further evaluation. By having concrete evidence of what I was sensing the classroom as tension, we were better able to address the concerns and alter the course appropriately.

Yes, the S-As (self-assessments) were extremely helpful to me both in terms of understanding better where my own seminar students were and also in terms of
programmatic issues. They talked both about their attitudes toward the seminar format AND about the content—the concepts—that they valued and thought they understood. . . . It’s hard to know if the negative comments about the communications exercises are because the exercises themselves were not useful or because we, as instructors, did not explain them very well.

A running theme was that all of them seemed to turn quickly from a reflection on their own learning to a reflection on the degree to which they were confused, especially early on, by just what they were doing in the seminar. I think that this assessment must have corresponded roughly in time with when we finally gave them the explicit details of the final assignment, and because of this they all mention how they are now less confused and starting to get it.

One faculty member wrote more in-depth about the students’ dualistic approach to knowledge, unfamiliarity with active learning, and lack of experience with self-assessment:

Many students wrote about how they had not learned much of anything and then went on to write about a number of things they had learned such as the importance in doing inquiry, of asking genuine questions, ones that you really want to find out about. While I thought that was a big deal—one of the course outcomes in fact—they often trivialized its importance and dismissed it as not that important a learning. So what does that mean? That they don’t perceive learning about a process such as inquiry as significant learning and that they tend to self-assess only on the basis of content knowledge? I’d say so. In general, what the S-As confirmed for me was the belief that students coming into college tend NOT to have learned how to assess their own learning and rely on other external indicators, mainly grades. And that when they do count up their learning chits, they tend to count only the content, knowledge-based beans, not the more fluid markers of process and competencies.

In summary, what the Seminar students don’t—and can’t—tell us about their learning in their self-assessments is enormously rich. The self-assessments—because of what they didn’t contain—proved quite useful as a way of pointing out the chasms looming between the place where the students enter college, the place where we expect them to start learning, and the constructivist, relativistic place we’d like them to end up. Students’ focus on their unmet expectations clarified that, as dualistic learners and beginners at self-assessment, believing their Seminar (and FIG in general) experiences would take one form and having it take another, tended to mold how they viewed their learning within the Seminar. As pointed out in Chapter Two, there is research that confirms the constructivist design of learning communities can facilitate students’ intellectual development and higher order thinking; but we need to identify the chasms and bridge them before that can happen. Major Themes of Authentic Learning

In addition to the theme of negatives, some strong themes—meaning appearance in thirteen or fourteen of the clusters—of authentic learning did emerge in the self-assessment data: (a) cognitive competencies; (b) social competencies, specifically, group work with a pattern of learning from peers; and (c) the affective competency of self-efficacy. Further,
patterns of what connections students made with their learning and what learning they perceived to be relevant will also be discussed.

**Theme 2: Cognitive competencies.** Overwhelmingly, students in all clusters made the most reference to gains in their cognitive competencies. This isn’t really a surprise, considering that the self-assessment prompt pointed students most specifically toward showing evidence of their cognitive gains, and the stated Seminar learning outcomes were cognitive, as well. For purposes of this study, the students’ comments on their cognitive learning were allowed to emerge naturally from the data, but were then organized into three major categories of cognitive competencies, as defined in Chapter One: (a) *Information*, defined as searching for relevant information, efficient use of information, and analyzing data and sources; (b) *Inquiry*, defined as skills from the inquiry process, including problem-solving, formulating questions, and making informed judgments; (c) and *Literacy*, defined as reading, writing, speaking, listening, and summarizing.

There were comments made in all clusters about cognitive competencies other than the three categories listed above. These included: critical thinking, communication to audience, and gain in technology skills. The comments occurred at a far lower rate, however, and were consequently rolled into one category.

Information was the dominant pattern in the cognitive theme: The majority of students across all clusters commented on gains in this area, especially new learning in research strategies and efficient use of information, as well as a new understanding and familiarity with the Western library:

I had no idea of the number of possible ways to research and get information. It is amazing how many ways there are to go about gathering information for a research project.

In researching the topic of immigration and migrant workers I discovered many other sources of information other than books, since most of the books related to the subject were outdated.

I have learned a huge number of skills and techniques for researching.

I think that one of the most important parts of this seminar that I learned the most from was the Library section. I think that it is very important to get to know your way around the library and how to use on-line resources.

I think the research skills I've learned in this FIG will help me in the future because if I am assigned a project, I will know how to narrow the topic down. I will also be able to sift through the information I find and I will be able to use resource such as the library, on-line search engines and books more efficiently. The knowledge of power point will help me present the information in a way that the audience will understand it better.
Comments about gains in Inquiry were represented slightly more than those regarding gains in Literacy; both however, appeared about half as often as the comments on Information. For many students, the process of inquiry was a new concept, one that opened their eyes to new ways of thinking about and acquiring information, both in and outside the Seminar classroom:

I have learned that the process of inquiry doesn't always leave you where you expected to end. Over the course of an inquiry the subject of the inquiry may change many times.

What I have probably learned the most about is the process of inquiry. There are many important aspects that contribute to the process of inquiry: the role of questions, groups, reading, writing, speaking, and listening.

A claim is nothing if one doesn't have the quotes, articles, published interviews, photographs and such to show the listener, or the opposite side, that what you're saying is the absolute truth, leaving no wiggle room.

All in all, I think that the inquiry process will prove somewhat helpful when writing my thesis or other important papers in the future.

By researching my inquiry question, I was able to apply what I learned in both my media and my politics class, and realize the strong connection between the two.

I believe that I have gained the ability to expand my thoughts when answering questions such as the Inquiry questions.

Although many students focused exclusively on the fact that the Literacy portion of the Seminar curriculum was a review of earlier skills, a number of those students did go on to recount perceived gains in all areas of their literacy skills. Other students reported gains of new literacy skills, especially in the areas of reading texts, summarizing, and speaking.

The biggest area of improvement I have seen in my reading is being able to read and summarize an article of a chapter more efficiently.

I have always been a slow reader, but not that I have learned how to look for main points I can skim over little details and focus more on the main concept. For example, I am reading a book for my sociology class. Usually the chapters are repetitive, and I often feel like I'm reading the same thing over and over again.
I have found that the technique of quick-writes has helped my group's research. I do not have to write everything down, but with a quick summary, I keep my group informed of the type of information that I have been finding.

In the Communications class, I have begun to enjoy speaking about things that might not strike me as deeply inspiring, but I have enjoyed talking about different topics within the inquiry questions with my FIG cluster. In this way, I have expanded my public speaking abilities within this course.

I realized that I couldn't just write one draft and call it good.

I would say that one area in which the Figs Seminar class helped my literacy skills is in the listening department. I have to admit that I tend to not pay attention at times when some people are talking. With all the group participation we do in the class I am forced to adjust my listening skills. I find this has carried over in other areas of my academics. In classes that tend to be less exciting than others I find myself tuning in easier than usual.

Seminar faculty also commented on students’ perception of Information (especially the library skills) acquisition as their most valuable and tangible skill. One faculty member explained that when students’ expectations (that the FIG was three small classes rather than a small Seminar and two large lecture courses) were not met, it “became a fatal flaw that they never managed to get beyond…the library research tended to draw them away from those courses rather than bridge them.” Further, the faculty responding also noticed students’ difficulty with perceiving the Communication 197 assignments as valuable or related to their own learning:

A number of students talked about their distaste for doing what they saw as "busy work," which often referred to doing any kind of recursive thinking, such as returning to earlier inquiry questions and recasting them. I found this response very telling because it reveals how they tend to see revisiting/re-thinking/revising as unnecessary activities that somehow seem redundant—instead of a necessary part of doing critical thinking.

The self-assessments helped me understand what the students thought they learned and what they found valuable. While we instructors gave them a lot of exercises to improve their writing and thinking skills, some of the students expressed disdain for the exercises, saying they were “busy work”. At the same time the students indicated they did learn from those exercises and they were more positive about them in the second assessment than in the first one earlier in the quarter. This indicated to me that the learning took place over a longer time than instructors anticipated and it took even longer for students to see the value in the exercises.

Further, the post-Seminar survey data was telling regarding students’ perceptions of Information skills as their most valuable learning: Over 70 percent of them believed that
joining a FIG was helpful in learning about campus resources, such as computer support and library facilities (20.6% strongly agreed; 50.0% agreed).

In summary, students overwhelmingly commented on their perceived gains in cognitive competencies. By far, they valued and commented upon their new acquisition of Information skills, more so than their skills of Inquiry and Literacy. Students appeared to define new learning as both a concrete “skill,” and something that they believed would help them the most in their academic careers. The fact that the students found the Information skills (which included familiarity with and use of the library) the most relevant will be discussed at greater length later in this chapter.

Theme 3: Social competencies: the value of group work. Perhaps the most surprising theme of all is students’ perceptions of their gains in working in groups, particularly, learning from their peers. Across all clusters (and despite the underlying sentiment that learning collaboratively was something that belonged in high school), students described ways in which their learning, approach to learning, and people skills increased as a result of their group experience.

After being in an inquiry group I felt that I have learned to work together for the better of the group. I also have learned that by giving your view on a problem and then listening to some ones critique, you learn about what you need to work on and how to help others as your group work on there (sic) problems.

I have learned a lot from my instructors as well as my peers, and I have learned to look at my own learning through a different perspective.

Also, working with a group has helped me listen and respond to others’ point of view. Listening to others in my group and correlating the messages they hope to convey in this seminar, I have formulated my own ideas.

At the beginning of the quarter when I first set out to find the room for this class, I remember walking into that hidden little place, grabbing a packet of things off a table, and sitting down in a strange crowded atmosphere. As I glanced over the material, we began discussing the inquiry projects, and I thought to myself "What the hell have I gotten myself into now?!?" It turns out that what I had gotten into was something I wish I had gotten into a long time ago, a virtual how to on group research. You see, I have never been a good "team player," I've always had trouble working as "one of the group." And (I know you're never supposed to start a sentence with that word, but I want to, so there!) as strange as it sounds, this class had done wonders for me in that area.

Through the group activities I have learned how to listen and understand and to speak in a way in which my audience understands and listen to what I am saying.
The next time I went to Seminar, my group decided to have a discussion about our question to try to help each other out. I shared some knowledge, and asked some questions, and by the end of class, I was feeling more capable to handle the task at hand. I learned that listening and speaking are very important in any kind of research because sometimes others have information that you either didn't know about, or didn't have access to.

Nevertheless, because the students had trouble seeing learning from peers as being “real” learning, there was a tendency for students to explain away their social learning. They tended to view any gain in people skills as accidental learning that was most valuable in helping them overcome their own internal flaws (such as inability to listen) and tended to express surprise that such learning was valuable and could be applied elsewhere:

Two things stand out in my mind, and chief among them is the ability to deal with people. Although I'm positive that this was not the intent of the class, it is a skill I picked up here. As a person who becomes easily annoyed, I was forced to work with people that I would otherwise not choose to associate with (kind of a jerk thing to say, I know, but the truth, nonetheless.) and so, I think I definitely think I improved on my "people" skills.

Working in a group has shown me that even if several people are looking for similar information, oftentimes they come up with greatly varied results. This was probably the most startling idea that I have come across during these seminars.

Ironically, presentations that I have done in the other classes have been aided by the fact that in the seminar classes we are constantly called upon to actively participate in the class discussions.

My people skills have had a lot of time to improve within this class. I was forced to work with two people I had never met before and even hadn't talked with and had to work together to choose a topic and how to go about working on it. I must admit we had a bumpy start, but I think we finally figured it out.

Also, working with a group has helped me listen and respond to others' point of view. Listening to others in my group and correlating the messages they hope to convey in this seminar, I have formulated my own ideas.

Just over half (9.9% strong agreed; 40.9% agreed) of Seminar students who responded to the post-Seminar survey said that they believed joining a FIG was worthwhile because it gave them an opportunity to meet and study with classmates. While 29.2% were neutral, only 15.2% disagreed and 4.7% strongly disagreed. The majority of students (14.6% strongly agreed; 50.3% agreed) that joining a FIG was worthwhile because of the friends and contacts they made. Seminar faculty respondents also saw the benefits that group work—and connecting with peers and faculty, in general—had on the Seminar students:
“... more than anything else, this opportunity to interact and connect with others in a small seminar setting seemed to be the feature of the FIGs that they most valued. ... Their comments reinforced what we know about the importance of relational learning. Many said they appreciated being able to connect up with other students and to work collectively. Others said they appreciated the chance to interact with the FIGs faculty.

The majority of the students also found the connections with faculty and with other students to be very helpful.

Several expressed that at first they were reluctant about the group work, that they had had bad experiences in high school with group learning, but now they were starting to enjoy it. I do think that the insight concerning their comfort level with group learning was important to my assessment of their learning and how I needed to respond.... Once they were focused and comfortable in their groups I was less of an explicator and became more of a mentor who could participate in the process by making relevant suggestions. This was a very important moment in the quarter in that it was the moment when the early confusion was sort of put behind us, and the rest of the quarter built to the final success of the presentations.

The post-Seminar survey data did not confirm the Seminar faculty’s perception of how much students had connected with faculty. Only 28.9% (4.9% strongly agreed; 24.0% agreed) of the students responded that the FIG was worthwhile because of “the contact made with faculty outside of regular class time.” Most students (61.1%) were neutral on the issue.

Perhaps the theme of value of group work and learning from peers was so surprising because—although collaborative learning was part of the Seminar design—it was never stated as a specific learning outcome, nor did the design of the course allow for students to spend any time in class learning about group dynamics and roles of individuals within groups. Further, many students had to first overcome their perceptions that group work was “high schoolish” (and that any learning that resulted from it was not real) before they could acknowledge it and write about it. This begs the questions: if students were given a context and better understanding of the value of group work in a college setting, as well as some lessons in team-building, what, then, would they say about their learning from peers? Would their learning increase, and would they begin to value other types of less tangible learning? To this researcher, such questions are worth exploring.

Theme 4: Affective competencies: self-efficacy. The self-assessments did not prove very useful in assessing the ways students may have acquired most affective learning competencies, including internal motivation, responsibility, independence, flexibility, and dealing with frustrating situations. They did prove useful, however, as a way of giving voice to issues of self-efficacy. Bandura (1986) describes self-efficacy as "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (p. 391). What a person believes about his abilities can determine how much effort he will expend, how he’ll persist if challenged, and levels of anxiety and
confidence. Just as it’s useful to examine the barriers students perceive to their acquisition of learning, examining the language they use when writing of their beliefs of their own strengths and weaknesses can give more depth and meaning to the ways they acquire authentic learning, and what learning they believe is most relevant. In all but one cluster, students used language that directly expressed their feelings about the ways they believed their behavior had changed—with the result they perceived they had increased their learning—from the beginning of the course. Statements such as “I am more confident,” “I am less terrified,” or “I feel more capable” and “I am not so shy” were used to explain new ways they viewed themselves and their learning. The Seminar’s learning community environment of small class sizes, active learning and group work were mentioned by students as being beneficial influences on their beliefs in their abilities to succeed academically and personally.

I think that through seminar I have learned to adapt and I find myself-talking to more people I do not know.

Before this class I would become terrified at just the idea of speaking in front of people but now I find it's a little easier to do. Not because I've learned some great new tip that helps me overcome the fear but because I've had the opportunity to speak many times and the more I talk the easier it becomes.

Now, I feel that I have more confidence in the whole process with reading the text, writing my information in a form of a paper, explaining my thoughts and what I have learned, and then finally listening to what others in my group have found and what other classmates think and what advice they give.

Before I never was really confident in expressing my thoughts with others on the research that I have done, but now I find my research interesting and want to explain what I have learned.

Above all, the figs seminar has been awesome as far as helping me alleviate the stress that comes with research and presentation by making me more familiar with my resources available to me at Western.

As a student I know about deadlines, GPA, stress and frankly it never really affected me the same as other students. I’ve never had the motivation to do the things that bring on those ailments, simply because I’ve been too bored by it all. What was it all worth to me? Yet, when I hit the books and discovered that there was more to it than say, Beethoven’s birthday, or Newton’s laws of Motion, I started asking questions. Real questions. . . . So, the question is: What have you gained from this class, how has your literacy developed? I have gained the motivation to think.
I know this because I am not as contained as I was at the beginning of the quarter. I have gotten to talk, know and communicate with others as a result from doing activities in class such as getting together with groups and talking about a subject that we all have in a common interest in.

By expressing their feelings and fears, the students, whether they are aware of it or not, are tentatively beginning to self-assess, to put their toes in the water, so to speak, but not quite ready to dive in and deeply explore their own learning process. Reading self-assessments for students’ self-efficacy issues might be a way to better align what they believe to be true about their learning and the methods we use to move them from dualistic to contextually relativistic thinking. The theme of self-efficacy may also be a very fertile one to explore in-depth for ways the constructivist learning environment can best be “learner-centered.” Students mentioned specifically how the small class size, active and collaborative learning impacted their behavior and beliefs about their learning and self-esteem. Perhaps if students are given more opportunities to self-assess, as the research suggests, they may become more skilled at making judgments about their learning, especially pinpointing and correcting their own fallacies and misconceptions about their performance in the classroom.

Further Analysis of Authentic Learning Themes

Once the self-assessments were analyzed for themes of authentic learning, the next step was to dig a little deeper, and do a further analysis to determine if—within the constructivist framework—students connected their learning to other areas of their lives, or if they found their learning relevant. Two strong patterns of connections and relevancy did emerge from the authentic learning themes.

Constructivists hold that for the transfer of learning to occur, students must be able to construct meaningful knowledge for themselves. To do this they must connect their current learning to prior knowledge and experiences, to other classes, and to their lives in general. Constructivists also maintain that for learning to occur, learners are provided with classroom experiences that are relevant outside the classroom. Relevancy, in the constructivist paradigm, is a main driver in what students choose to learn, and posing problems that are relevant is a guiding principle of constructivist pedagogy (Brooks & Brooks, 1993).

In what ways did students connect their learning in the Seminar? In thirteen of the fourteen clusters, students explained ways they made connections of the Seminar to the other courses in the cluster, of their current learning to their prior knowledge, of their current learning to classrooms outside the FIG, and of themselves to other people.

The connections between this class and my psychology and theatre classes has made learning in all of the classes seem more interesting as well as easier. Being able to talk about psychology discussions in communications, for our report, made it easier to learn and understand more about the ecology of genders as well as learn how to research in a new library, a new environment.

Being enrolled in both of the classes included in the FIG cluster, Introduction to Mass Media and The American Political System, I learned a lot about the two
subjects but didn't really get the full affect on how they relate to each other. Seminar is what showed me this.

A few years earlier I had read a book called Clan of the Cave Bear by Jean M. Auel, and after learning more about the Nenets, I found it surprising how much the clan in my book sounded like the Nenets, which prompted my earth goddess theory. I am glad that this quarter has helped me to understand that the literacy I have developed contains not only my reading at a young age, but the way I speak as well.

Through the FIG I met other freshman that I might not have met otherwise. Many of us now get together and study for tests and review together.

Another thing I learned is how my two GUR lecture courses relate to each other. I found it strange that something at different as Political Science and Sociolinguistics could have so much in common with each other. I never realized the language you spoke could cause such conflicts in the world.

In the FIG I have been able to expand my exploration of nationalism outside of the basics that were learned in my political science class. I think that this is an important and meaningful connection.

I've actually used those skills quite a few times in different classes. Like for my political science paper I went strait (sic) to Proquest to look up journal articles on my topic.

While Seminar faculty did not respond directly to the issue of connections (it was commented upon in relation to group work), almost half of the students (5.8% strongly agreed; 43.4% agreed) responding to the post-Seminar survey said that the skills learned in the FIG Seminar would help them with other courses. Fifty percent (12.9% strongly agreed; 37.1% agreed) of the Seminar students believed the two large GUR courses in their FIG cluster related to each other.

What learning did the Seminar students perceive as most relevant? As expected, the strongest pattern of relevancy emerged in students’ perception of their gain of information skills. What students believed to be their strongest learning was also what they believed most relevant to their academic careers and in the future workplace. While students expressed equally their beliefs that new learning in literacy and inquiry was relevant, those comments occurred approximately half as often as did the Information comments. As explained earlier, students tended to view learning from their peers as less valuable than the learning of cognitive skills. Consequently, they did not as a rule perceive their new social competencies as relevant to their other academics or lives.

This is handy to me because, no matter where I go and what other research I have to do in college, I will always know how to get information off of the libraries computer search.
I have learned so much about internet research through Library 197, it has been very helpful not only for this class, but for the majority of my other classes. These high tech research strategies are essential for college and I do not know what I would have done without this class.

We really stressed summarization in the Communications half of the FIG. I think that helped me in my other classes to narrow down the relevant information and in my FIG project to focus. These skills are key in any class or job.

In the FIG seminar, we learned how to use different searching techniques and how to reference them in our papers. This will be incredibly helpful in future classes and jobs.

Overall, I feel as though this class has benefited my studies that I am doing, and that I will be doing in the future. This gives me a systematic way to break down life so it is easier to understand.

This seminar has also been helpful in learning how to summarize what people say better and to gain a better understanding of what someone is really saying or what their key points are. This is helpful not only in an academic setting, but also in an everyday use that will be helpful in talking to others and getting a better understanding of who they are and what they are trying to get across to me.

Exploring these patterns of connections and relevance helped greatly to give context, depth, and dimension to the identified themes of authentic learning and the ways the students experienced them within a learning community. Seeing where—and how—the Seminar students made connections with their learning might be a powerful formative evaluation tool for faculty, as well. Most importantly, what students believe to be most relevant drives what they choose to learn, or at least what they count as “real” learning. The students’ statements about what they felt was most relevant about their learning in the Seminar definitely helped clarify what learning they believed to be most valuable (and least valuable) to their success in college and the future workplace.
Conclusions and Implications

From the findings discussed in the last chapter, it can be concluded that the self-assessments were very useful in evaluating the ways the Seminar students acquired authentic learning competencies. Themes of cognitive competencies, social competencies (specifically the value of group work and learning from peers), and issues of self-efficacy emerged from the self-assessment data. The relational aspect of authentic learning competencies became obvious in further analysis of patterns of what learning students found relevant to their lives and future careers, and ways they made connections among their FIG courses, to themselves, others, and college in general.

The self-assessments also confirmed what the literature says, that students (especially entering freshmen) do not instinctively know how to self-assess, to view themselves and their learning process in a metacognitive way. Second, most of the students were uncomfortable with the constructivist principles of the Seminar, which included open-ended discovery, group work, and the teacher as a partner in the learning process. As a result, the self-assessments as a whole were predominantly written as recitations of assignments with some general comments on learning, and tended to focus on extrinsic factors, such as problems with the Seminar design and perceived barriers to learning. The strong theme of expectations and barriers proved useful, however, in identifying the gaps between where students arrive at college, what is expected of them within the learning community environment, and what learning students are expected to have at the end of their experience. Seminar faculty also found the comments useful as a form of summative assessment of student learning, as well as gained a better perspective about what students found difficult about the Seminar model. As was discussed in the findings, students’ unmet expectations had a strong effect on their perceptions about what they had or hadn’t learned. Because the students primarily looked at knowledge dualistically, and did not know how to self-assess, focusing outward upon their unmet expectations rather than looking inward at their own learning was a dominant pattern.

Implications and Directions for Future Studies

There seem to be some clear ways that self-assessments can be useful for students, faculty and designers of learning communities within a traditional higher education environment.

For students, self-assessment has the potential to put them in the center of their own learning process, by giving them a method for understanding, reflecting upon, and making judgments upon their learning. As suggested by the literature, students must be given frequent opportunities to self-assess to learn how to do it. For dualistic learners, especially, frequent opportunities to self-assess may help them develop a “language” they can use to reflect on their learning as well as develop and refine evaluative skills. Further, for students to best use self-assessment for evaluative and reflective purposes, it must not be an “add on” assessment measure, but be interwoven in the learning process. Students must understand the role of self-assessment within the learning community, and must view self-assessment as
something they undertake in partnership with the instructor. This will be a challenge to accomplish in a traditional higher education environment, where instructivist teaching and grading methods are by far the norm.

Ostensibly for faculty at traditional higher education institutions, self-assessment can be a way of assessing authentic learning competencies that cannot be assessed with a grade. It can be formative, helping faculty shape curriculum, or it can be used to help students deconstruct their assumptions about their learning. It can be summative, especially used in tandem with teacher grading or other forms of alternative assessment.

This study suggests far wider implications for faculty’s use of self-assessment, however. It can be a way to align what students say they are learning with the stated learning outcomes for the course. If students are continually expressing the ways they are learning from peers, for example, “learning from peers” could become an explicit rather than implied course outcome. Their comments on group work as “high schoolish” may have been mitigated if its purpose at college would have been made explicit to them at the beginning of the Seminar. By making clear and discussing such outcomes with students, faculty may help them see such learning as “real,” and decrease chances that students will explain away or minimize learning they are not sure is relevant or useful. Although students tend to learn what they already believe is relevant, this doesn’t have to be an absolute: Brooks and Brooks (1993) point out “Relevance can emerge through teacher mediation” (p. 35).

The findings in this study also suggest implications for the value of teaching students how to self-assess. There was a pattern in the responses of Seminar students, which showed that, through the act of self-assessment, students were surprised to discover their learning had increased. By helping students learn how to self-assess, faculty can begin to point them inward at their own learning processes and pave the way toward increased metacognitive skills.

The study brings up important questions about the gaps between what students understand when they enter learning communities, and what they are expected to understand once in them. If—as was found in this study and is supported by the literature—entering freshmen students tend to see knowledge dualistically but they are expected to thrive in a collaborative learning environment that assumes late multiplicity, what does that imply? It might be the “chicken and egg” syndrome suggested by Stefani (1998), that traditional higher education wants students to be autonomous, lifelong authentic learners, but the underlying message is that students must already have those skills before they walk in the classroom, or will just somehow acquire them before graduation. In order to create effective and satisfying collaborative learning experiences, program designers must first acknowledge and create ways to make learning outcomes, collaborative strategies and expectations explicit for students. By not doing so, there’s more opportunity for the students to be left behind, unable to transcend the potentially devastating gaps that might exist between their assumptions, expectations, developmental level, and the actual higher education learning community experience. Only when these respective gaps are brought to light, examined, acknowledged and understood by faculty, and, most importantly made visible to students, can they be satisfactorily bridged.
This study brought up many questions and directions, which could be targeted for future research. For one, a study of broader scope on the FIG Seminars, using a more-defined self-assessment instrument, explicit student learning outcomes, as well as more opportunities for students to practice self-assessment, might yield different results. Future studies might also examine self-assessments specifically for issues of self-efficacy, learning from peers, or critical thinking, to name a few. The Measure of Intellectual Development (MID) might be used to compare the developmental change of Seminar students who engaged in ongoing self-assessment within a learning community, with that of their peers also enrolled in the large GUR lecture courses, who did not. Whatever direction is chosen, it’s clear that that self-assessment has a place in evaluating students’ acquisition of authentic learning competencies. The students’ voices, heard so loud and clear in self-assessment, can contribute toward re-visioning the traditional higher education environment for today’s world.
References


