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Evidence-Based or Just Good for the Soul? Examining the Efficacy of Peer Tutoring in College

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Cover Page Footnote

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Abstract

As peer tutoring programs have become pervasive on college campuses, it has become common to hear their benefits extolled. The goal of this paper is to examine the literature to determine in what ways accessing peer tutoring may impact college students. Specifically, the dual lenses of cognitive development and the generation and conversion of academic and social capital are employed to limit the scope of the research and focus the analysis. Conclusions include that while "peer tutoring" lacks a commonly accepted definition, students may receive intellectual benefits and their social networks may be broadened when accessing services that are intentionally structured. These ideas are connected to institutional mission statements and stated goals.

Peer tutoring programs have become commonplace in higher education, especially as notions of retention and persistence have become a stated goal at many institutions. Some research suggests that at least 75% of all four-year institutions offer tutoring programs (Hodges & White, 2001). It is not uncommon to hear both researchers and practitioners extol the benefits of such programs for undergraduate students. For example, some authors suggest that students who participate in such peer-to-peer interaction better understand concepts and score higher on assignments and exams (Mazur, 1997). Others imply that students will experience increased engagement, enhanced cognitive and psychosocial development, and a generally easier transition to college life (Ender & Newton, 2000). Further examples include claims of enhanced confidence and self-efficacy, improved study skills, and the generation of friendships (Beasley, 1997). However, many such claims seem to be anecdotal, to rely on potentially unfounded assumptions, and may include preconceived notions or bias from the author that has not been considered.

The intent here is to examine evidence from the literature that demonstrates how students who access such services benefit from them. More specifically, the intention here is to address the following questions: How does accessing peer tutoring impact academic achievement? Can peer tutoring create an environment conducive to promoting cognitive development? Is participating in peer tutoring an activity that expends social or academic capital or enhances it?

Admittedly, these are broad questions about which entire books could be written. The sections that follow offer a conceptual framework intended to focus and limit the scope of this project. The evidence offered may not be comprehensive, but the hope is that it will be representative and thereby sufficient to answer the stated questions.

Personal Bias

At the outset, it seems reasonable and necessary to note briefly the personal experience and perspective of the author. I am a student affairs professional who works with college students every day. One of my major professional responsibilities is coordinating a peer tutoring program at a large, public research university in the southeastern United States. My undergraduate training is in anthropology and I have taken a number of graduate courses in that discipline. This background has influenced me to think from a holistic, cultural perspective in my work and research, sometimes manifesting as the application of social theory. As such, it is not uncommon for me to approach my work (both academic and professional) with concepts such as political economy, capital, power, or hegemony in mind.

When I began coordinating a peer tutoring program, I was struck by how genuinely engaged, appreciative, and comfortable students who accessed the service became after voluntarily attending tutoring sessions only once or twice. My passion for working with college students in general is what prompted my application to a master's program in higher education. Professionally, I have spent much time evaluating the tutoring program in different ways and from different perspectives, and have continued to be puzzled by the variety of colleagues who implement programs, services, or interventions while neglecting to consider theory and assessed practice that can be invaluable to informing academic support services.

Conceptual Framework

A discussion of peer tutoring in general is one that continues to consume volumes of writing. Because of the quantitative, evidence-based trend in higher education, one focus will be on understanding how students benefit academically or how their academic achievement may be impacted by accessing peer tutoring. The use of certain theoretical perspectives here will be

useful both to reasonably limit the examination of peer tutoring and also to view peer tutoring and the questions addressed here through certain lenses. The approaches used will include cognitive student development and notions of academic and social capital. The intention is to frame the discussion of peer tutoring and the examination of the literature with these concepts and to employ these perspectives in a critical analysis of the evidence. These particular approaches were chosen because they align with common goals of peer tutoring initiatives (to enhance students' engagement and social connections on campus and enhance their development).

Cognitive Development

Even as theories of student cognitive development continue to expand and diversify, many tend to trace their foundations to William Perry's work (Love & Guthrie, 1999). In general, Perry's theory of cognitive development may be seen as an extension of Piaget's childhood development model. A key concept of any theory of cognitive development, and one that is frequently lost in such conversations, is that cognitive development may be understood as the way individuals make meaning of the world around them. The critical distinction here is between how a person thinks and what they are actually thinking about. In employing cognitive development theory, it is essential to focus on the "how" rather than the "what."

The context in which Perry developed his model is also important to recognize, particularly because of its distinctions with contemporary campus life. He developed his theory while working as a professor at Harvard during the 1950's and 1960's (Love & Guthrie, 1999). The subjects of his research were college students from Harvard and Radcliffe -- a group composed almost entirely of white, upper-class males who represented only a fraction of the contemporary college student population (Love & Guthrie, 1999). While these potential sources

of bias are typically acknowledged in discussions of Perry, they are significant and have become a source of contention in more recent departures from his work.

An approach that differentiated Perry's work from other types of developmental theories was in how he defined his positions and transitions. Overall, his theory is composed of four major stages (dualism, multiplicity, relativism, and commitment) that subsume nine distinct positions. A significant difference in Perry's approach is that he understands positions as static and transitions as locations of movement, where the development actually occurs: "I realized that positions are by definition static, and development is by definition movement. It was therefore the transitions that were so fresh and intriguing" (Perry, 1981, p. 78).

One of the departures from Perry's work that may also be helpful in this analysis is the work done by Marcia Baxter Magolda. A student of Perry's, Baxter Magolda's model differs from Perry's in that it intentionally takes into account and is informed by the notion that gender influences (but does not determine) the pattern within a student's ways of knowing (Baxter Magolda, 1992). Her four stages (absolute knowing, transitional knowing, independent knowing, and contextual knowing) are related from her longitudinal study participants to other students through "parallels" that emerge along three story lines: the development and emergence of voice, changing relationships with authority, and evolving relationships with peers (Baxter Magolda, 1992, p. 193). While her stages and model of development may advance similarly to Perry's, a key aspect of her work here is that "Baxter Magolda observed that co-curricular involvements place the student's experience in the forefront, thereby legitimizing it as a basis for constructing new knowledge" (Evans, Forney, & Guido-DiBrito, 1998, p. 158).

In general, the work of both Perry and Baxter Magolda on cognitive development is significant in this context. Both seem to agree that students' development can be enhanced given

a supportive environment and sufficient challenge to think differently about their experiences in the world. One potential issue that may be illuminated in this paper is whether a peer tutoring environment, if appropriate for enhancing such development, is capable of encouraging cognitive development for students at all stages or just those in certain stages.

Additionally, because cognitive development is a process that happens at a relatively slow pace, it is difficult, if not impossible, to determine if such development occurred during or as the result of a tutoring session. Therefore, the focus here is an examination of peer tutoring environments to try to determine if they are conducive to such intellectual development, as they so often claim to be.

Academic and Social Capital

While cognitive development represents many of the purported benefits of peer tutoring, it is quite common to hear claims that students will expand their social networks, make new friends, and further engage with the institution as a result of accessing such services. It is hoped that this lens of capital generation and conversion may be a powerful tool in understanding the intersection of student engagement and student consumerism. There is much evidence suggesting that a student's level of engagement on a college campus influences a variety of factors in that student's experience (Kuh, Kinzie, Schuh, Whitt, & Associates, 2005). There is also a growing discourse on the ways in which students (and frequently their families) view higher education as a commodity for which they are paying. Some researchers have found that as many as four out of ten students believe that "their payment of tuition entitles them to a degree" (Delucchi & Korgen, 2002, p. 104). Some authors have questioned how a capitalist society makes sense of higher education and whether administrators who bemoan student

consumerism have a right to do so when students and their families take on substantial debt investing in education (Willimon & Naylor, 1995).

In its discussions of culture and society, it is not uncommon for anthropological literature to employ theoretical concepts of capital that are generated, exchanged, and converted in a culture's daily operations. In applying such concepts to higher education, Jan Nespor (1990) invokes Pierre Bourdieu and notions of structuralism. In general, Nespor examines how curricular structures impact the conversion of students' social capital into academic capital, both of which may be valuable when converted to economic capital outside the institution.

An attractive aspect of Nespor's work for this examination of peer tutoring is that it uses an atypical definition of curriculum, emphasizing that academic learning may be understood as a student's academic career, or how a student uses the curricular structure (Nespor, 1990, p. 504). In his discussion of such curricular consumption, Nespor is careful to define the curriculum as not being limited to the classroom, but also conceptualized to include other contexts where academic learning occurs (Nespor, 1990, p. 516).

This lens is valuable when examining peer tutoring because often it is clear that there is no typically agreed upon "place" for tutoring in institutional structure. While they may be found in student affairs, academic affairs, or in a specific instructional unit, tutoring initiatives do seem to exist as a co-curricular entity, being neither completely within nor outside of the curriculum as it is traditionally viewed. Nespor's work would seem to suggest that tutoring be included as part of the curriculum that students consume and that may impact both their social capital and their ability to convert that social capital.

In this paper, the exchange and conversion of capital will be used as a lens through which to analyze peer tutoring. While peer tutoring may exist as co-curricular or as a part of the

curriculum, depending on which definition is used, it is feasible that such interactions, where academic and social worlds frequently coexist and intersect, play a role in structuring the conversion of social capital into academic capital. The intention here is an examination of the literature to discern if social capital itself is impacted in peer tutoring interactions and if such experiences impact the conversion of social capital to academic capital.

A Cultural Perspective: Intersections of Capital and Cognitive Development

The two conceptual approaches employed here may seem disparate at first. However, as the literature and discussion that follow will demonstrate, there do seem to be powerful connections between these two perspectives. Certainly, there are ways that making meaning (in the sense of Baxter Magolda, 1992; Perry, 1981) and the construction of a world view (as described by Nespor, 1990) do interact and influence each other. As such, the contexts and milieus in which both happen become critical.

A question that becomes pertinent is how and why does the setting matter? Allowing that students come to our campuses at various stages of maturity and intellectual growth, it is reasonable to assume that they also come with varying levels of comfort regarding the conversion of social capital to academic capital. Therefore, environments where less maturity is expected may require increased levels of structure to facilitate the conversion of such capital. These environments, when structured effectively, may serve as models whereby cultural norms and expectations are scaffolded for students and consequently allow them to become increasingly comfortable with capital generation and conversion. This increased comfort actually translates into an ability to capitalize (literally) on activities that enhance student engagement.

Moreover, this suggests that the ability to benefit fully from engagement activities may be related to intellectual complexity. As such, as college students continue to develop

cognitively, they may require less structured environments to convert capital. These ideas may be particularly pertinent here since structured tutoring programs so often attempt to focus on first-year students and/or introductory courses. It is also possible that this discussion may illuminate new ways in which world views and the making of meaning intersect.

While answers to such questions are certainly complicated and difficult to ascertain, a truly cultural perspective makes it problematic to isolate intellectual development from academic and social capital. The emphasis here is to examine this interconnectedness and explore the ways in which cognitive development and capital construction/conversion overlap and influence each other.

The Evidence

While it has become a hot topic in recent decades, the notion of undergraduate academic support is not new. As with much of American higher education, academic assistance may trace its roots to the English standards of Oxford and Cambridge. The idea of tutorials, led by tutors or precepts, at these institutions is a tradition that continues today. The tutorials themselves typically involve a tutor/precept/don and several undergraduate students working or thinking through material from a particular course (Ashwin, 2005).

In perhaps the earliest example of formal tutoring in American higher education, research has shown that in the seventeenth century Harvard recognized that many students were having difficulty transitioning to college life and offered assistance with Latin (Carpenter & Johnson, 1991). It is important to acknowledge the history of such assistance here primarily because so many individuals who work in higher education seem to assume that the need to provide such support is a result of increased access and enrollments, particularly those that followed World War II. For an anecdotal example, this author has heard a high-level administrator at one

institution remark that "if everyone was doing their jobs, students and faculty, we wouldn't need any tutoring." This type of misconception must be dispelled when considering the evidence that follows.

It should also be noted that the efficacy of peer tutoring has been studied and documented for varying levels of education ranging from young children (Campbell-Peralta, 1995) to graduate and professional students (Sobral, 2002). Much of the research also focuses on special populations, most notably students with disabilities and first-generation students (see Perrine & Wilkins, 2001). The focus here is intentionally limited to undergraduate students who access peer tutoring provided by other undergraduate students and is intentionally broad in focusing on all college students rather than a particular subset.

Looking first at academic achievement, it can be difficult to quantify the extent to which accessing peer tutoring impacts a student's grade in the course or the student's overall GPA, primarily because there are so many complicating factors. Keup (2006) conducted a quantitative study aimed at understanding what factors seem to promote academic success among first-year college students. Using data from nearly 20,000 students at more than 100 institutions, Keup analyzed data from surveys conducted at the beginning and end of students' first years, respectively: the Cooperative Institutional Research Program's 2002 Freshman Survey (Sax, Lindholm, Astin, Korn, & Mahoney, 2002) and the Your First College Year 2003 Survey (Keup & Stolzenberg, 2004; Sax & others, 2002). Both descriptive statistics and regression analysis were performed on the data, and overall, 50.5% of all students reported having received tutoring of some kind during their first year (Keup, 2006, p. 34).

Receiving tutoring actually had a negative relationship with grades both in terms of simple correlation and regression analysis relating to first year GPA (Keup, 2006, p. 42). While

the author concludes that engaging in tutoring "may actually serve as a proxy for students in academic difficulty," (Keup, 2006, p. 42) it should be noted that such an analysis necessarily excludes an understanding of how different models of tutoring operate and also relies on first-year students' understanding of what constitutes tutoring on their campus. Additionally, Keup notes that accessing tutoring did have a small, positive relationship with self-assessed cognitive development, suggesting that "the benefits from tutoring that manifest during the first year are less tangible than grades and speak to a broader issue of self-concept with respect to cognitive abilities" (2006, p. 42).

This one large-scale, empirical study suggests that students' grades may not be directly, positively influenced by accessing peer tutoring, which amounts to a refutation of many claims in the literature. However, it does demonstrate a positive correlation to cognitive development, another oft-cited claim (see Annis, 1983; Rekrut, 1994). As mentioned above, cognitive development is not easily measured, and is unlikely to shift significantly over the course of a given semester. The literature that exists regarding tutoring initiatives does reveal indirect evidence that speaks to the capability of such programs to enhance intellectual development, thus reaffirming Keup's (2006) broad finding.

Some work has been done regarding how the processes involved in peer tutoring align with those that are required for cognitive development. Foot and Howe (1998) assert that engaging in conversation, challenging one's ideas, and eventually reaching a point of stability are integral for catalyzing cognitive development. In their review of the literature, these authors also suggest that such conditions are inherent in peer tutoring. Further, they argue that peer tutoring may be well-suited to provoke such development because it provides opportunity for such discussion followed by a period of "postinteractive reflection" (Foot & Howe, 1998, p. 36).

Their contention is that a period of such reflection is necessary for newly reworked ideas to sink in as part of gradual cognitive change (Foot & Howe, 1998). The apparent benefit of tutoring is that it provides a one-on-one or small group opportunity for this discourse among peers to occur, allows the student to leave and the new construction of meaning to be integrated, and then provides continuing opportunities for the student to return and resume/repeat the process.

While these authors do make several good points, they do not directly address how cognitive development is provoked or moved from one stage to another. It seems that their basic argument is that discussion that would take place during a peer tutoring session could create cognitive dissonance. However, cognitive dissonance is not the only state required for moving between all stages of intellectual development. Foot and Howe (1998) continue by addressing directly the benefit of peer tutors over other types. They suggest that the benefit to cognitive development of using peer tutors is that "there is a greater cognitive congruence between their cognitive structures" (Foot & Howe, 1998, p. 37). They further propose that this cognitive closeness allows the peer tutor to better understand the difficulties their tutees are encountering and to respond more appropriately (Foot & Howe, 1998).

Supporting such a claim, Moust and Schmidt (1995) conducted a study that compared students' observations of student (peer) tutors and staff tutors. Their analysis concluded that peer tutors conducted tutoring sessions differently from staff tutors (Moust & Schmidt, 1995). Specifically, they found that peer tutors were more likely to be interested in and suggest study strategies for students' particular environments while staff tutors more frequently employed an "authoritarian" tone (Moust & Schmidt, 1995, p. 299). These authors also invoke cognitive congruence and their research suggests that the use of peer tutors is linked with student achievement.

These findings are significant for a number of reasons. Another way to understand Moust and Schmidt's conclusion is that employing peer tutors creates an environment that lacks an absolute authority whom students can safely assume possesses the truth (authority and truth in the sense of Perry, 1981). This forces the students accessing tutoring to question the source of the knowledge or information and consider the value of multiple perspectives or their own way of knowing. Such an environment is also a place where students can amass and convert social capital, demonstrating for the students that their peers can be valuable resources in the construction of their world view.

Consequently, these findings reinforce the argument that a peer tutoring environment is supportive of cognitive development. It seems clear that there is evidence of both challenge and support in such an environment, and that peer tutors are likely not only to help create cognitive dissonance, but also to allow students more freedom in discussion (as suggested by Moust & Schmidt, 1995), which in turn may help students feel the need to support certain opinions or commit to independently achieved beliefs. Evans et al. (1998) suggest that these outcomes are critical transitions in moving from multiplicity to relativism or relativism to commitment, to use Perry's terms.

With regard to the tutoring environment and its impacts, it is not uncommon to find claims of improved self-esteem and/or self-confidence (such as in Cowie & Wallace, 2000; Mynard & Almarzouqi, 2006). While these kinds of benefits may seem intuitive, they are significant for the student in a variety of ways. First, there is the basic notion that an environment that enhances self-esteem or self-confidence is also one that is capable of providing the basic support needed for inciting cognitive development.

It should be noted that the presence of a supportive environment is not sufficient, in and of itself, to spur such development. However, a key feature of intellectual development is that an individual may retreat, escape, or temporize if they are challenged to structure how they think in a new way in the absence of support mechanisms. Therefore, these ideas are actually critical to achieving an environment capable of encouraging cognitive development.

Second, increasing students' self-confidence may have very real impacts on their social capital. A basic argument would suggest that students who have more confidence in their abilities are more likely to interact with their peers in a positive way and expand their social networks. Putnam suggests that a central concept of social capital is that "networks and the associated norms of reciprocity have value" (2001, p. 117). The expansion of such networks may be related to amassing more social capital, which potentially gives the student more academic capital after the conversion process.

Another aspect to this argument is that students who access a peer tutoring program regularly may develop positive social relationships with some of the peer tutors. This in turn may lead to increased interaction with program administrators and faculty members. All of these interactions may serve as part of the curriculum that exists outside the classroom and may provide a structure that is supportive of converting social capital into academic capital, or as a mechanism for generating additional social capital.

In his discussion of management students, Nespor (1990) addressed how social capital may be converted into another form of social capital (that spans various social groups) and that social capital may be converted into academic capital through the exchange of information about courses, programs, and resources (conversations that seem likely to take place in conjunction with peer tutoring).

Further supporting such ideas, Colin Beasley (1997) examined the development and evaluation of a peer tutoring pilot initiative. This evaluation consisted of survey instruments given both to peer tutors and to tutees. The questionnaires were intended to be parallel and qualitative data was collected from the peer tutors in the form of interview questions during an in-person meeting at the end of the semester (Beasley, 1997). The results demonstrate a number of positive outcomes, both for the tutors and the students who accessed tutoring.

For example, students reported in large numbers that their study skills improved, self-confidence improved, and that the tutoring sessions were useful in general (Beasley, 1997, p. 28). Moreover, Beasley concluded that both groups benefitted socially from their experiences (1997); specifically, he noted that students had an increased awareness of the value of discussing their ideas with others, especially their peers (Beasley, 1997, p. 30).

In another programmatic assessment, Royal (2007) examined the efficacy of an established peer tutoring program by creating and implementing a survey independent from the professionals who coordinated the program. A number of findings of that study are significant here. For example, students reported that accessing this particular tutoring program improved their understanding of how to do the assignment (89.9%), increased their knowledge/understanding of the subject (88.3%), and influenced their decision to remain in the course (75.8%) (Royal, 2007, p. 6). While these constructs measured students' perceptions rather than an actual relation to grades, persistence, or GPA, they do seem to contradict Keup's (2006) broad findings regarding a negative relationship between tutoring and academic achievement. This could suggest that the academic impact of a tutoring initiative may be program-specific to some extent, thereby confounding measurements made across many

institutions. This makes intuitive sense, since there does not seem to be a standard model or set of best practices applied in mainstream academia.

Additionally, Royal's study measured concepts of self-esteem and self-confidence. His survey results report that after accessing tutoring, students felt less frustrated (86.5%), had increased confidence in their ability to complete the assignment successfully (84.5%), felt more confident in their ability to complete the course successfully (83.3%), and that they felt less overall stress about college academics (78.4%) (Royal, 2007, p. 6). Such results indicate that students receive substantial added value from peer tutoring. These increased levels of confidence and decreases in stress and anxiety can reasonably help students perform better on tests or quizzes. Perhaps more significantly, this information suggests that students feel comfortable in the tutoring environment and believe they benefit in a variety of ways from having these hybrid social-academic interactions with their peers.

The results from both Beasley (1997) and Royal (2007) suggest an intriguing combination of social and academic activity happening outside the traditional classroom environment. Another aspect of these findings is that students accessing tutoring are interacting with peers who they may not have associated with otherwise. Specifically, these programs gave students a place to interact outside their typical social networks, thereby extending the social networks of both the tutors and the tutees. The positive reciprocal relationship that seems to have been created between tutors and tutees may have served to generate social capital for both groups. Additionally, these tutoring environments seem to be a part of the curricular structure that could influence the conversion of social capital.

Nespor (1990) suggests that the ways students define academic tasks are products of their experience in moving through the curriculum. The tutoring environment described by Beasley

(1997) may be a place where such definitions are influenced and created, which Nespor (1990) argues is driven by the conversion of social and cultural capital into academic capital. Therefore, creating such an environment may equate to providing an environment where capital conversion is likely to occur via students' informal discussions of assignments, courses, majors, etc.

Additionally, Beasley (1997) addresses the structure necessary to create the environment he described and studied. The researcher describes a training program that is significant in many ways. First, the facilitator led the peer tutors in a discussion of what learning meant to them. This discussion apparently included tutor comments that ranged from the blank slate/empty vessel approach to suggesting that individuals participate in and help construct their own education (Beasley, 1997). These ideas demonstrate that peer tutors may represent a cross section of cognitive development, potentially including dualists, multiplicitists, and relativists. This variation, coupled with the finding that students in general gained an appreciation for discussing and challenging ideas with their peers, may suggest that it is not necessary to have students who are further developed cognitively to promote such development in their peers. This point is significant because it implies that an individual's peers, given an appropriate environment, can have an impact on that person's intellectual development.

Second, Beasley (1997) explains that a major topic covered in the training included strategies for conducting a successful tutoring session. This training stressed that the peer tutor role is that of a facilitator and that tutors should be "nonthreatening resource personnel who could encourage students' skill development, independence and confidence" (Beasley, 1997, p. 23). The structuring of the environment regarding how to conduct a tutoring session may suggest that these interactions are different from those that students might have if they went to a roommate, friend, or classmate for academic assistance. This difference may help elucidate that

peer tutoring is part of the overall curricular structure, not just something that happens outside the defined curriculum.

In general, the literature does seem to indicate that peer tutoring is a place where cognitive development may be enhanced. At the least, it does appear probable that peer tutoring can create an environment where such development is likely to occur. Additionally, if taken as part of the overall curricular structure, a peer tutoring program seems to be a place where social capital is gained for both tutors and tutees, and where social capital is commonly converted into academic capital.

Conclusions and Future Directions

As widespread as peer tutoring programs have become, it is difficult to locate reliable research that is not program-specific. This may be due in part to the fact that while tutoring programs have become commonplace, their structure and function still varies widely. For comparison, consider the model of a university counseling or career center. Such departments are considered a given on American college campuses and students can reasonably expect to find similar services at each regardless of institution, whether they be one-on-one counseling, small group counseling, career fairs, career counseling, or skills assessment. Alternatively, peer tutoring programs, though popular, are still somewhat of an enigma. While many institutions provide such tutoring, it is clear that there are abundant variations: required vs. voluntary, undergraduate tutors vs. graduate students vs. professionals, restriction to special populations vs. open to all students, scheduled vs. drop-in, and so on.

The detailed information that is available in the literature is largely based on specific programmatic evaluation and assessment. While this information is valuable to understanding how peer tutoring may work, it is by its very nature not meant to be generalizable. Certainly all

tutoring programs do not need to conform to one model to be effective. However, an apparent gap in the literature is a typology through which to understand different models of tutoring.

This makes large-scale, cross-institutional comparisons problematic because it is evident that what constitutes tutoring at one institution can be very different from what is provided on other campuses. This issue becomes particularly challenging when researchers employ quantitative methods such as Keup (2006) did in her study of factors influencing first-year academic success. While that author concludes that the results of her regression analysis indicate a negative correlation with grades, such information hardly seems applicable to most instances. A more nuanced analysis might suggest that such results indicate that tutoring programs, on average, may not have a direct, positive impact on students' academic achievement. However, a follow-up to such a study may replicate the statistical analysis but break the results down based on the structure and design of the tutoring programs surveyed.

It is difficult to see or document the impact that peer tutoring may have on intellectual development, especially considering the ephemeral nature of voluntary attendance or participation in tutoring. However, the research does suggest that students who access peer tutoring are challenged to think through concepts in new ways. They are also exposed to other students who may have different ways of knowing. That such cognitive dissonance can occur in a semi-structured environment with nonjudgmental peers certainly lends credence to the notion that accessing peer tutoring can promote intellectual development, though it should be mentioned that the structure and atmosphere of a particular program must be intentionally designed with such outcomes in mind.

Peer tutoring in general has been shown to be a place where students' social and academic worlds intersect. The interactions that occur in such places appear to be able to

positively impact on students' academic achievement. However, the impact should be understood to be much broader. It is clear that students interacting in these structured or semi-structured tutoring environments are broadening their experiences and social networks.

From one perspective, such interactions serve to increase student engagement with the institution substantially. From an alternative, though complementary perspective, these interactions allow students to generate social capital. A critical aspect to this process seems to be that the environment encourages students to interact with their peers in new ways (because the peer tutors are typically seen as having some level of authority and knowledge) and with a somewhat atypical focus (course material and concepts). The discussions that result regarding course selection, study strategies, navigating the curriculum, navigating the institution, using resources effectively, etc., drive the conversion of social capital to academic capital. Students can leave a tutoring session with new competencies and confidence in these areas, as well as in the course content. This generation and conversion of capital, which certainly becomes valuable outside the institution, speaks to student consumerism.

In one place, students are amassing capital, converting capital, and engaging in the institution. When these interactions are considered through the lens of student consumerism, it is not unreasonable to ask to what extent students' construction of peer tutoring is a blend of academic (classroom-like) activities and networking (in the social and/or business sense). Perhaps this is part of the reason why students typically show an appreciation for tutoring sessions and perceive them as beneficial even while attending them is sometimes difficult to link to academic achievement. Future research could ask what students expect to gain from accessing peer tutoring and compare those results with actual outcomes.

Overall, students can certainly benefit from accessing peer tutoring in myriad ways. These kinds of out-of-class interactions are critical to both academic and intellectual development. Terenzini, Pascarella, and Blimling (1999) assert that "students' out-of-class experiences appear to be far more influential in students' academic and intellectual development than many faculty members and academic and student affairs administrators think…academic and cognitive learning are positively shaped by a wide variety of out-of-class experiences" (p. 618).

The overall goal of this paper was to understand in what ways students benefit from accessing peer tutoring. The literature and practices discussed above do indicate that academic achievement, cognitive development, and the amassing and conversion of capital may be facilitated in a peer tutoring environment. However, it is not clear what outcomes institutions expect or hope to gain from implementing peer tutoring programs. This lack of intentionality may explain some of the variation in the structure and function of tutoring programs across institutions. Ultimately, these seem like institutional choices that faculty, administrators, and students may consider when creating, funding, or assessing such a program. An informal trend this author has observed is that colleges and universities increasingly talk about preparing students to be responsible, participatory citizens and leaders in their mission statements. If institutions educate students with these ends in mind, it makes sense to provide structures such as peer tutoring that support students' intellectual development and foster their ability to amass social and academic capital.

With regard to peer tutoring itself, much of the literature referenced here demonstrates the variety of benefits students may receive from accessing peer tutoring. It is apparent that tutoring needs to be structured intentionally and assessed regularly in order to achieve specific

outcomes. If an institution is dedicated to its mission and intends to prepare students to be critical, constructive contributors to society, peer tutoring certainly seems a valuable out-of-class opportunity to advance those goals. Overall, peer tutoring can be a vital resource, but ultimately it relies on what institutions, administrators, staff, and students make of it.

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