Experiences that Promote Self-Authorship: An Analysis of the "Demands" of Developmentally Effective Experiences

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Theories of college student and adult intellectual development (Baxter Magolda, 1992; Belenky, Clinchy, Goldberger, & Tarule, 1986; Fischer, 1980; Fischer & Rose, 2001; King & Kitchener, 1994; Perry, 1970) have shown that learning to value and evaluate evidence evolves in a developmentally predictable fashion. Further, they offer explanations for the difficulties some students face when asked to make their own judgments or to evaluate those of others. Despite the value of using students' interpretations as a lens through which to examine student experiences, research on what students experience is much more prevalent in the literature on student outcomes (e. g., Pascarella & Terenzini, 2005) than is research on student interpretations of their experiences. The risk of neglecting to examine interpretation in studies of student outcomes is a limited understanding of the lessons students actually glean from their experiences (e.g., viewing the scientific method as formula getting correct answers compared to seeing it as a tool that allows for replication and hypothesis testing). Further, studies designed to examine individual level experiences with programs designed to promote student learning and development are rare, leaving many gaps in our understanding of developmental mechanisms that enable students to change how they see the world, their role as learners and citizens, and how they engage in healthy relationships with others. This study was designed to contribute to the small but growing body of research that attempts to ascertain why given experiences have a developmental impact on student learning (e.g., Baxter Magolda, 1999; Baxter Magolda & King, 2004; Baxter Magolda et al, 2007; Mezirow, 2000). Gaining more detailed information about the

aspects of programs and services that positively affect student learning and development will allow collegiate educators (faculty, student affairs staff, and other educators) to be more intentional in their programmatic, instructional, and pedagogical choices.

Conceptual Framework

This study has a strong foundation in the constructive-developmental tradition, which holds that people actively construct their individual points of view by interpreting their experiences (i.e., constructivism) and that these constructions form ways of understanding or meaning-making that develop through time (i.e., developmentalism). Robert Kegan describes development as "the evolution of consciousness, the personal unfolding of ways of organizing experience that are not simply replaced as we grow but subsumed into more complex systems of mind" (1994, p. 9). His work details several orders of consciousness leading to more mature and effective meaning-making systems, including *self-authorship*, which is the internal capacity to generate one's own views on the world, oneself, and relationships with others (Baxter Magolda, 2001; Kegan, 1994). Prior to the internal orientation associated with self-authorship, individuals tend to rely on less complex frames of reference and on external sources for knowledge, beliefs, values, and patterns to follow for approval of behavior. Internally grounded understanding and the more complex ways of thinking commonly associated with self-authorship are consistent with the characteristics of a college-educated person. In fact, Baxter Magolda (2004) states that self-authorship "stands at the core of the contemporary college learning outcomes identified in national reform reports" (p. 29).

Figure 1 portrays our use of this tradition in the interview portion of this study. As portrayed in this figure, students enter college with particular background characteristics,

histories, and assumptions about world, themselves, and their relationships. These entering characteristics and assumptions mediate educational experiences that are required or that students choose. Students' interpretations of these experiences indicate whether they maintain their original assumptions that guide their behavior, or adopt new ones to make sense of their experience. The ways in which students interpret their experience (e.g., from an external, authority-driven framework to one in which judgments, values, and behaviors are examined and internally endorsed) reflect developmental complexity on the three dimensions of Kegan's theory: cognitive (i.e., assumptions about knowledge), intrapersonal (i.e., assumptions about identity), and interpersonal (i.e., assumptions about relationships). As proposed by King and Baxter Magolda (2005) for the development of intercultural maturity, these dimensions provide a developmental foundation for the seven liberal arts outcomes associated with the Wabash National Study of Liberal Arts Education (Wabash National Study; Baxter Magolda, 2004). For a description of these outcomes and their selection, see King, Kendall Brown, Lindsay, & Van Hecke (in press).

Baxter Magolda et al. (2007) examined a wide range of experiences from the Wabash National Study pilot study (described below), and identified a set of experiences that were "developmentally effective;" that is, students reported that these experiences provided a stimulus for them to change the way they viewed knowledge, themselves, and their relationships with others in more complex and mature ways. They found that these experiences varied widely in content, context and timing, and that the nature of the effects of these experienced varied substantially by developmental level. For example, one of the overarching effects was *Increasing Awareness and Openness to Responsibility*

for Own Learning; the effects for those using an external orientation included: a) Developed a more questioning attitude, and b) Took responsibility to seek help, manage time, set priorities. For those using a mixed orientation, the effects of these experiences included: a) Took intellectual risks in class, and b) Gained a broader, more integrated perspective on issues. Students whose orientations reflected early self-authorship learned different lessons from their effective experiences: a) Took active responsibility for own learning, and b) for applying learning to life and identity. It is important to note that this analysis showed that students with different developmental levels approached similar situations differently, ultimately leading to different effects upon individuals.

The current study builds on this prior work by examining the nature of the developmental experiences in more detail. Here, we have focused on features of experience (and where possible, features of the tasks within experiences) that appeared to *result* in the effect. Kegan (1994) refers to these tasks as "demands" in the title of his book, *In Over Our Heads: The Mental Demands of Modern Life*, and illustrates the demands placed on adolescents in the chapter, "Whaddaya want from me?" (p. 15). Few researchers have investigated these demands from the perspective of demands facing college students. By reexamining the developmentally effective experiences reported by Baxter Magolda et al. (2007), our purpose was to closely examine the experiences that stimulated students to reconsider and revise their meaning making structures, and in particular, the demands placed upon students that resulted in personal development progressing toward self-authorship.

By focusing on this aspect of developmentally effective experiences, we hope to better understand the underlying mechanisms of development, particularly, whether there

are distinctive elements to these demands that are associated with the developmental process. The major question of this study is: What are the demands and characteristics of experiences that effectively promote the development of self-authorship?

Methods

Sample. The data for this paper were taken from interview responses collected in the qualitative portion of the pilot phase of the Wabash National Study of Liberal Arts Education, which is a cross-sectional, mixed methods study designed to examine the conditions and experiences that lead to the achievement of liberal arts outcomes. From among a group of 600 randomly selected students from four institutions who participated in the quantitative portion of this study, 174 students (primarily first-year and senior students) participated in a 60-90 minute individual interview with a Wabash National Study trained interviewer.

In this paper, we focus on the experiences of students attending two of these four campuses; these two campuses yielded the largest number of information rich cases related to the developmentally effective experiences. A total of 94 interviews were collected on these two campuses; see Tables 1 and 2 for a synopsis of demographic and developmental level information on the sample. Both campuses had enrollments of over 10,000 students, but differed by institutional type. One campus is a Master's Colleges and Universities (larger programs) in the Carnegie Classification scheme, while the other is a Research Universities (very high research activity). (Due to institutional agreements that preclude comparisons, we combined the two samples to yield a total sample of 94, nearly equally divided between the two institutions.

Table 1: Interview Sample by Class Year, Gender, and Race (2 campus sample)

	First-Year	Senior	Total (%)
Gender			
Male	17	15	32 (34.0)
Female	41	21	62 (66.0)
Total (%)	58 (61.7)	36 (38.3)	94 (100)
Race/Ethnicity			
White	37	26[a]	63 (67.0)
African American	8	1	9 (9.6)
Asian	4	4[b]	8 (8.5)
Pacific Islander	2	0	2 (2.1)
Hispanic/Latino	2	2[a]	4 (4.2)
Other	1	0	1 (1.1)
Multiracial[c]	4	2	6 (6.4)
No response	0	1	1 (1.1)
Total (%)	58 (61.7)	36 (38.3)	94 (100)

[a] Two of these participants is are international students

[b] All four senior Asian participants are international students

[c] Students in this category identified as Asian and "other" race/ethnicity, Asian and White, White and Black, and White and Native American

Table 2: Interview Sample by Class Year and Self-Authorship (2 campus sample)

	First-Year	Senior	Total (%)
Self-authorship			
External	41	12	53 (58.9)
Mixed	12	18	30 (33.3)
Internal	1	6	7 (7.8)
Total (%)	54 (60.0)	36 (40.0)	90[a] (100)

[a] Four interviews did not yield sufficient data to make an assessment of self-authorship level

Interview Protocol. The interviews were conducted using an approach that incorporated both the "informal conversation interview" and the general "interview guide" (Patton, 1990, p. 288). The Wabash National Study Interview is a three-part semi-structured interview protocol (Baxter Magolda & King, 2007). The introductory segment

asked students to describe their personal history as well as their expectations for college and how these were realized. The second component addressed the educational experiences they regarded as key to their experience and why these particular experiences were important. The third segment addressed how students made meaning of these experiences and integrated their learning across experiences. Recognizing that the content and nature of meaning was unique to the individual, questions were responsive to the students' answers and functioned "to discover the meaning individuals make of their experiences" (Ortiz, 2003, p. 36). In this way, the interview was co-constructed by the interviewer and interviewee. Interviews were digitally recorded and transcribed verbatim.

Coding and Analysis. A multi-step approach was used for data analysis. The first step was to create an interview summary, which consisted of three parts: 1) a description of the student's relevant background characteristics and an overview of the interview; 2) a description of the major developmental experiences the student reported and how each contributed to the student's development (the developmental effect of the experience).; and 3) an assessment of the nature of student's developmental meaning making orientation (predominantly external, a mixture of external and internal, or predominantly internal). For each element, illustrative quotes from the transcript were included in the summary.

At the heart of this coding process is the concept of a "developmentally effective" experience, or an experience that changed the way the student saw or thought about the world, self, relationships with others in developmentally more advanced ways. To be coded as a "developmental experience," the experience had to be more than simply interesting or significant to the person: it had to have a developmental impact that could

lead to self-authorship. For example, if a student described a study abroad experience for which the effect was, "I learned that in England, they drive on the wrong side of the road," this would not meet the criterion of being a developmental experience since it did not change the student's meaning making structure. By contrast, the following experience in which the student described the effects of discussing the presidential election of 2004 with her peers was coded as a developmental experience:

> That was just different for me to hear all the people [ask] "Well, why do you believe this and … why are your views that way?" It was kind of like, OK. Well, why DO I think that way? And is it just because my parents brought me up that way? I didn't want to be one of those people that just voted because that's how they were raised. (A40)

This was coded as a developmental experience because the effect was to question the basis for her political views, which reflects a more cognitively complex approach to decision making than does simple reliance on the word of others, especially authority figures.

Through this process, we continued to focus on the effects, noting how these differ by meaning making orientation. We used a grounded theory approach (Charmaz, 2003; Patton, 2001) to categorize the effects, allowing themes to emerge from the data rather than determining them a priori based on particular outcomes, contexts, or experiences.

In approaching this analysis of the developmental experiences, we again used a grounded theory approach (Charmaz, 2003; Patton, 2001) to categorize the demands, allowing themes to emerge from the data. We identified the demand of each experience by asking questions such as "What did this experience require of the student to elicit the observed response or effect?" "What enabled the effect?" and "What made this

experience challenging for the student?" This perceived requirement or challenge was recorded in a spreadsheet as the "demand" for each developmental experience. Through this process, we discovered that some of the developmental experiences did not have a clear demand; this was typical of the more general experiences such as coming to college, or moving away from family. Any developmental experiences that did not have a strong demand evident based on the student interview data were removed from the analysis. We met several times during the process of identifying the demands to increase inter-rater reliability and discuss emerging themes, establish criteria for inclusion in analysis, and further refine the categorization process.

An in-depth analysis of the developmental experiences and the factors and conditions associated with them revealed that there were several components to what we referred to as "demands." As we unpacked this conceptualization of demands, we found that many of the interviews indicated that some students emphasized both challenging and supportive elements in their descriptions of the experience. These details did not emerge in every interview, but surfaced consistently enough to make the distinction between the challenge and support components of each experience. We added columns to our analytical spreadsheet for the perceived demand (or challenge) itself, any support that the student discussed, and ultimately the effect of the experience upon the individual. This was a reminder of the constructivist paradigm at the heart of this study, since the demands we seek to study only become useful data when the student discloses the information in the interview, and when the student constructs the experience as challenging. Throughout the analysis, we were mindful that the experiences, challenges, supports, and effects were products of the individual student's perceptions and ways of

making meaning; thus, we were studying the demands and the supportive conditions as the student perceived and conveyed them.

A total of 190 developmental experiences were identified from the 94 interview summaries; of these, 139 (73%) met our criteria for further analysis of the demands of the experience, representing 68 individual students, or 72% of our sample. The findings reported below are based upon these 139 selected developmental experiences.

Each developmental experience was coded to reflect the context in which the experience occurred. We used the following contexts in this coding: 1) Co-curricular; 2) Courses; 3) Family; 4) Friends/Social; 5) Personal; 6) General; 7) Living; 8) Work; 9) International, 10) Current Events, and 11) Other.

Findings

What are the "demands" of developmentally effective experiences? What other factors or conditions played a significant or memorable role that enabled developmental effects? In examining the students' experiences associated with developmental effects, we were particularly interested in examining those cases that offered rich descriptions of the "demands" as well as detailed information about other contextual factors related to student's ability to learn from these demands in ways that yielded developmental effects. We offer one such example next.

In the following example, a first-year female nursing student named Mia described her interactions with the professor who "had very different views than I did" in the context of a course on alternative medicine.

> S: It was like a medicine and health type class, alternative medicine, and I just took it because I felt like as a nurse, you really need to understand where different people are coming from, if they don't want treatment, or you know things like

that; I didn't want to be insensitive. She [the professor] really helped me with that because she was different in her beliefs with alternative medicine and choosing to go to a doctor or a different kind of practitioner and things like that. And a lot of times, I came away from class feeling not quite offended, but definitely challenged. That was good for me but also hard at times, especially when it came time to writing like papers and things like that. I am trying to be open-minded and I feel like I'm not. She once told me at the point where you worrying about it, you are being open-minded. So like I said, we're actually very, very close now, which is really nice, but that was a challenge that that I knew I would have and I kind of put myself in to make sure I was truly as understanding and maybe compassionate as I wanted to be as a nurse. But that was hard to deal with first semester, too.

I: So how did you grapple with it? Tell me a little bit about the process.

S: She brought in a lot of different speakers of different kinds of medicine and things that I had never heard of before, and a lot of the times when they were talking, I am just kind of sitting there thinking, "Are they kidding?" And I, I felt kind of bad about thinking that afterwards, but I think that we read quite a bit of stories of like personal type testimonials of what worked. And I think what helped me understand it most was the idea that I never thought of before, that most allopathic medicine that we think about really only less than 30% of people go away satisfied with it. And I had no idea it was that-- I mean in my town, you didn't really ever hear of other different types of practitioners or homeopathic medicine or anything like that. So I think hearing that statistic just kind of made me realize that a lot of people really weren't happy with what I had always just considered to be fact. I think hearing about the different ways that we discovered things were true, like some of the methods that we use for testing on people and some of our ideas, it's really more trial and error than I realized. And so I think that really made me open up and say, well, I'm disregarding this group because they don't have any real scientific evidence to back it up, but I think when I look back, I see that we didn't either, and now we do, and now we know, but it was just a stab in the dark, just like everyone else. After reading about some of them, some of them have been around a lot longer than allopathic medicine and I feel like there has to be some truth to them, something that is definitely making people feel better, you know whether it's, I mean sometimes it's probably psychological and sometimes it probably is physical. But if it is something that is making people feel well, then I think that really helped. So it was mostly I think the readings of the class that helped.

I: …it also sounds like the relationship you have with this particular professor had a-- I'm wondering if you could talk about how she helped you.

S: During the class I, I told her point blank that I was going to struggle with this. I told her I was in nursing and I wanted to be more compassionate, but that I had never been around [this] kind of medicine. She has each student meet with her

> and so that's kind of when we discuss this, but I really wanted to come away with more of an open mind and she definitely helped me. She would email me back and forth, asking me what I thought about different kinds of readings, how I felt. Sometimes I told her I felt offended by the reading, especially right at first, because I just I thought the guy was crazy. And she said, "Well, where are you coming from? Who are you to say he's crazy?" And so sometimes she was kind of direct with it, but I'm really glad she was, especially when I look back. I think she was very happy with the way I progressed in the class as well. I definitely was more open to sharing my feelings even when I thought they might sound like more arrogant or maybe not understanding because I felt like I wouldn't learn if I didn't say what I was thinking. Whereas I think most people are really afraid of being politically correct, which is something you have to worry about, but how are you truly going to be if you're not willing to share your feelings? So she and I actually met more than I guess was required to discuss a lot of things like that. And she shared a lot of personal experiences with me and I did with her. I definitely think that had she not been so you know, "I understand what you are going through, but you know I want you to come away with a better understanding." Had she not been that open or maybe been offended by some of the things that I said I don't think we would have come away that close. [B02.1-2.M]

What Mia found challenging about this course was that its content was not aligned with her own assumptions about medical practice and that the professor directly confronted her about these assumptions and why she held them. At the same time, the professor encouraged her to explore and express her own views, even though they differed from the focus of the class, and directly addressed questions related to standards of evidence that could be applied to both perspectives. As a result, Mia reported being more open-minded to alternative medicine, and was willing to examine the basis of her views about allopathic medicine as well. What enabled this effect? This account suggests several possibilities: 1) she was motivated to be a good nurse who was compassionate and sensitive to patient decisions; 2) the course challenged her to make sense of readings (e.g., that over 70% of patients were dissatisfied with their care) and first-hand accounts that described an unfamiliar approach to medicine that included success stories (the "demands" of the experience); and 3) the professor took her concerns seriously,

encouraged her to voice her opinions and disagree where appropriate, and engaged in personal conversations around the issues raised by the course content or in class.

Unfortunately, such detailed examples were the exception rather than the rule in this data set. In most of the remaining examples, students' descriptions of the experiences tended to focus either on the demands per se, or on the conditions around the experience that enabled them to rise to its challenges, with little detail about the challenge or demand itself. So instead of examining these experiences for both elements, we categorized them according to the themes that were emphasized. This yielded two sets of themes among the developmental experiences: those that emphasized what made the situation challenging to them (the "demands" of the situation), and those that emphasized supportive conditions that helped them respond to the demands.

Challenge: Exposure to New Ideas, Situations, or People from Diverse Backgrounds

For this cluster of developmental experiences, the salient factor that appeared to enable the developmental effect was exposure to new ideas, beliefs, cultural backgrounds, or unfamiliar situations in ways that challenged students' conceptions of the world and their place in it. These experiences challenged students' existing perspectives in ways that led to new awareness; they included those where the focus was on initial exposure to new ideas, people, or situations that generally broaden perspectives and allow student to see the world in a new way. However, given the criterion of a developmental experience (that the experience led not just to change but to developmental change), the new awareness that these students reported also reflected broader, more complex perspectives associated with development of higher order thinking. Listed below are examples of the kind of developmental experiences we coded in this theme.

In the first excerpt, a student named Nikki engages in a conversation about religious beliefs with a peer.

> S (Student): One of my friends is definitely atheist and I always talk to her, you know, you need Jesus, pretty much you know like the good little Christian girl. And I've talked to her about it but then some of the ways that she thinks, I kind of relate with them. I'm not saying I don't believe in God, but some of the things that make her believe that there's not a God I kind of – I don't know. Not that I believe it, but it just makes me understand why-why she thinks that way. And before, I would be just be like "Oh, she's atheist, I'm not even talking to her." Like in high school and stuff like that and I'd kind of just shut people off, but now I'm just more open to meeting new people and finding out what people are about and why they believe what they believe instead of just shutting them off right when I – like making prejudiced views on them already. (C04.3.E)

In this example, the experience is meeting people with religious beliefs different from one's own, and the effect of this experience for this student was that she actively considered different ideas and perspectives. The demand of this experience was being exposed to an atheist and figuring out how to interact with a friend who disavowed a faith tradition. What might seem like a subtle difference here between effect and demand is actually quite important. In this context, the student found herself in a position of interacting with someone who holds different beliefs from herself. In this college setting, it was not acceptable to "shut off" the other person (as she had in high school), and the demand was that a conversation take place. It was from this conversation that the student gained a new perspective and even related to the person with differing beliefs.

In the context of a discussion of diversity experiences, Kristy (a senior) noted,

> I haven't had any bad experiences; it's just a lack of. Like I don't think I've really encountered or even really talked to anyone from any Asian descent or not even Hispanic, I guess, I haven't really seen many people like that around campus. I think it's only 10% African American also and the rest are mostly white.

She reported on an experience of being in class with an African American student whose writing impressed her:

> S: Well, I have, there's a guy who is in my poetry class that I am taking right now who happens to be African American. … He is an amazing thinker, he was very deep. I like having him in that class, especially for poetry because he is an amazing writer and he brings a lot to the class. … He wrote a poem about stereotypes and it was basically kind of listing off all the different stereotypes of what someone might perceive as a black guy walking down the road. Well maybe he's this, or maybe he's that, you know, things like that. But he made it, he has a very lyrical way with his writings, so he always has lots and lots of sounds in there. So it ended up kind of sounding like a rap and he kind of intertwined that in there, too, to make it like, you know, I'm not that guy, had in there who I am, that sort of thing. It was good, I thought it was really good. It made you think, yeah, I guess everybody always comes up with a stereotype even if you don't want to, you're not trying to. [C02.3.E]

Having class with an African American student was an uncommon experience for Kristy, who described her collegiate experience as lacking in diversity. Hearing his poetry also helped her understand his perspective, and to begin to think about stereotyping.

These examples are typical of the data that comprise this category. In general, students reporting challenges related to exposure to new ideas, situations, or people from diverse backgrounds expressed that they felt more open-minded, and had gained the ability to see the world through different perspectives. Students operating from an external meaning making orientation, such as Nikki and Kristy, experienced new insights into others' points of view. Students using a mixture of external and internal meaning making frameworks had more complex responses to similar exposures to new concepts. Michael, a senior, was surprised with the religious diversity he encountered on his college campus, and talked about conversations he had during a lunchtime roundtable discussions. These interactions were the initial exposure for Michael to a variety of religions and faith traditions that he had never heard of before.

> S: I'm really religious buff. I'm not any particular type of religion but I wanted to know everything about it. And these people based on their backgrounds just had all different kinds of religions and philosophies on life. And so, it would be good

> to have a—the honors program had this roundtable discussion every week where you would just go, sit at lunch and talk. And, you know, those were some of the most thought provoking things ever...the fact that once everyone kind of puts their cards out on the table in terms of the religion they grew up with and the one that they know the most about, you just see the similarities and differences and it's kind of a like you, like me being a scientist and everything I just kind of analyze them all and try to give each one a number of completeness or whatever, or correctness. It's just interesting to see how similar they all are in the end. That was the conclusion I made, just how similar they all are. [B26.5.M]

Michael's response to this initial exposure to new ideas is more complex than Nikki's, despite a similar experience. He compares multiple perspectives to one another, as well as against his own criteria of completeness or correctness. While the context of a discussion with peers, and the challenge of exposure to new religious ideas is similar to Nikki's example above, the effect for Michael is different. He saw the similarities as well as the differences between the various ideas, organized these beliefs into a continuum based on criteria, and also examined the basis for these beliefs. We will continue to revisit this phenomenon of similar demands resulting in different effects for individual students throughout this paper.

Challenge: Experiencing Discomfort Leading to Action

In a second cluster of developmental experiences, the salient factor that appeared to enable the developmental effect was experiencing an uncomfortable feeling when confronted with a difficult situation. These emotional reactions (e.g., shame, threat, fear, embarrassment) helped motivate students who had these experiences to take actions that would help them better understand or address the source of the discomfort. For some, the discomfort arose from social situations, such as choosing between two social groups or being a minority of one in the given situation; for others, the source of the discomfort arose in course-related settings, such as getting a "bad" grade on a test or not feeling able

to adequately explain one's views in class. Across these examples, students appeared to challenge themselves to take individual action (such as speaking up in class, having a conversation/relationship with someone different, or persevering in a difficult internship) as a result of experiencing this discomfort.

The exemplary quotes for this category demonstrate students' responses to challenging or uncomfortable situations. The following first-year student, Judy, experienced discomfort based on her inability to explain the basis for her political views when the 2004 presidential election.

> S: I was always brought up Republican and me and the girl I am living with next year are probably the two Republicans on my entire hall and everyone else is Democratic. And that was just different for me to hear all the people "Well, why do you believe this? And why do you, why are your views that way?" It was kind of like OK, well, why do I think that way, and is it just because my parents brought me up that way? Or is it because- 'cause it was the first time I could vote? I didn't want to be one of those people that just voted because that's how they were raised. They [girls across the hall who were democrats] actually could defend their reasons. And so it was cool for me to be able to see that and be able to think about different aspects of different religions, different political views, everything. [B04.1.E]

Judy has an overall external basis for meaning making, and is interacting for the first time with people who hold different political beliefs from her and her family. This was an entirely new experience for Judy, and inconsistent with her external orientation and preference toward a dichotomy of right and wrong. The effect of this discomfort and her resulting action was that it caused her to explore the basis for her own views and be more open to different perspectives.

For experiences such as the next one, "discomfort" does not adequately reflect the depth of angst this student felt in the experience he reported. Jack held a student leadership position during a term in which friends of his on a sports team were accused of

hazing and he was asked to support the administration's stance against the team; this was further complicated when the administrator handling the incident was reprimanded. This situation resulted in a serious role conflict for Jack as he struggled to respond to the various pressures he was experiencing.

> S: I was in a very, very, very tough position where I had a full report about what the team had done. I had to be a student and a friend at the same time as being a [name of leadership position]. And that was tough because it was like I had been, I had made very good friends with the [administrator handling the situation]. I liked [this person] a whole lot. [This person] respected me but from what I was hearing, you know, might have done some things wrong. And that was extremely tough for me. To be in that position of you know can you go hang out with these people and be their friend and support them, but at the same time make the case that hey wait a minute, you know. I got a call from [a senior administrator] and he's a very imposing figure. We had to quickly [make a public response.] I was dressed not in a suit like at a normal meeting, and we were pulled in there and we had to go to [this public meeting] and during that entire [time] when they read a report [with the administrative decision], I knew that, I wasn't sure if I really did [support] this decision. And I stood in this [meeting] and I kept my head down. I just, I stood there you know with my hands folded and I did not want to be there. I did not want to be there. … And it was like I hope and I pray that it does not go any further because I know that in my heart if I disagree, I'm not just going to go along. But at the same time, I cannot, you know, ruin everything for personal reasons. I can't ruin everything I've done for the position; I can't ruin the respect level…. I was already tearing myself apart. I was like, what are you going to do? How are you going to be able to say, "Hey, I still support you, team, but [what] you did- it was- you did wrong. So … there was a very big difference between who I was inside the position and who I was outside the position and had to make that decision. I never had to publicly say anything, so it's in a way, it's like I never really faced the true challenge but I knew what was happening. … A few days later, I was hanging out [with some friends] and they [were] just going off on this and that. And I said "Now, what a minute, you know, it's possible that the [team] did wrong." And it was tough for me to say that sitting there as their friend. … it was very hard to say because I felt like you have, you really right now have the potential to ruin friendships and you do not want to do that. But at the same time, you can't just sit back and let it go. [C43.9.E]

The pressure that Jack felt in this situation spurred him to make a difficult decision. Revealing an external meaning making level, he describes how he was "tearing himself apart" deciding between maintaining the respect of his peers and the respect of the

administration. He did not see any room for compromise in this situation, perceiving this situation as demanding that he choose one or the other. It is notable that Jack does not indicate that he had any support during this difficult period; this may contribute to the extreme feeling of anxiety he describes in the interview.

Luis, the first-year student in the next example had the uncomfortable experience of confronting his own stereotypes, here, his stereotypes about fraternities.

> S: I actually started to pledge a fraternity which was kind of ironic because coming to the university, I was completely against anything that had anything to do with fraternities or anything. Anyway, when I was when I graduated, the first thing people would say was, "Where are you going to school next year?" And the next question was, "Are you going to join a frat?" My immediate question, my immediate answer was "No, never, I was never going to join anything like that." But the fraternity that I found was the type of fraternity that went against all the stereotypes that I had of fraternities, and it's because of those stereotypes that I didn't want to have anything to do with fraternities. So because they, um, kind of slapped me in the back into reality saying that, "Yes, we are a Greek foundation whatever, but, it doesn't mean that we're like anybody else." It's like they try to be different. …They're a Latin fraternity. … It was a struggle for me because I was saying to myself, "Do you realize what you're doing. You're pledging for a frat. You were always against that. You said that you never wanted to do anything with that." So that was a struggle for me to realize that um, it was…I felt as if I was being a hypocrite because I was doing something that I fought against. But then when I realized that I was applying the stereotypes that they were proven wrong to me…it was after that that I realized that, um, these guys are different. They're not what I think of when I think of frats. … Me, myself, I fell victim to my own stereotypes, and projecting them on to them so if I do that to them and another thing is that if I join them, if I became part of a Greek organization, that the stereotypes that I have against them are going to be put on me. So it was like I felt as if they proved me wrong. So I want to do, I want to be part of them to help them prove everybody else wrong as well since they proved me wrong 'cause I'm most the extreme anti-fraternity guy known to mankind. [B13.4.M]

Luis has a different experience than Jack in handling a challenge that brought discomfort. While he also indicates an internal "struggle," Luis describes a more complex way of reasoning through the situation, indicative of his mixed level of meaning making. He considered how his own stereotypes of fraternity members would be applied to him if he

joined; this placed the demand upon Luis to reconsider the basis for his stereotypes, and the reasons he wanted to join the organization. He discovered that all fraternities were not alike, and that all did not match his stereotypical view, a stark contrast with Jack's "all or nothing" approach to the challenge he faced.

Support: Relying on Organizational Structures or Routines

In the third cluster of developmental experiences, the salient factor in students' descriptions of their experiences regarding factors that enabled the effect focused on conditions they reported as supportive of their educational pursuits. These conditions reflected the benefits of intentional organizational structures (e.g., learning communities or other small living arrangements) or from routines learned in other contexts (e.g., sports teams) that helped them structure their days and their lives in ways that helped them be productive and address other challenges. Some students reported looking toward these structures in anticipation of experiencing discomfort (loneliness, academic challenge); other reported seeking them out after realizing the need.

The first two examples below emphasized social or academic support. For example, Becca was one of 6 female engineering students in an entering class of 80 who credited her successful transition to college and to engineering to her involvement in an engineering sorority:

> S: You have the same kind of concerns as [other sorority members], so if you did bad on an exam or something, somebody can be like, "Oh no, it's OK. You can bring that up. Thais is what I did. I had the same professor." So it's a nice connection to have. And it's not like every other sorority…; we're mainly a social sorority that is just like a tight-knit group of friends to be able to express the concerns that you have with engineering and everything like that. [B34.2.E]

Whitney, another female student, reported that starting college required a large cultural transition for her since her parents were very strict with her and she was

unaccustomed to the freedom afforded by making her own decisions. She referenced a similar source of support she felt from the other women in her small (140-member) residence hall housed in a large historic home:

> S: I just feel so much more secure knowing that these girls are there for me… If I were in a [traditional] residence hall, I just feel like it would be a messier thing. It would be more scattered and I really like the order, the security of [name of her hall]. [B07.1.M]

By contrast, other students described the support they experienced through a different type of structure, the established regimen associated with participation in specific activities. This included an example of regular meetings to discuss an independent study, but was most commonly reported in athletic contexts. For example, Stacey talked about the study hall hours required by her athletic team.

> S:…But, I feel like I've been more encouraged to just go teach myself, which isn't a bad thing, but I guess that's probably cause I'm at the library so much I just go find different books and read, and different documentaries kind of help me out with the courses. So that's been better than just, I mean all this working at one time. So maybe that's what college is about.
>
> I: And is that something that you, um, took on yourself, and read books and see the documentaries or was that something that faculty encouraged you to do.
>
> S: No, that's just something I was trying to kill time in the library. Study hall hours… But I mean it helped me out in the long run. [C37.2.E]

Alexa, who was also a student athlete, described the support she received through, the regimen and discipline of an intercollegiate sports team. After originally not making the soccer team, she convinced the coach to allow her to participate in the summer sports camp, "to show you that I'm good enough to play here" and was invited back for preseason workouts. She had a very successful soccer career in college, and when a team member with a scholarship transferred, that money was transferred to Alexa; by her senior year, she had been granted a full scholarship.

> So yeah, that just goes to show you that… And I just worked so hard in the off-season, you know, my coach said you need to be faster, which I'm so glad he did that because that's why I'm able to do triathlons now. I became really into workout, really into running, and I didn't want to be just one of the faster girls on the team, I wanted to be the fastest. I think a lot of that has to do with like inherent discipline that maybe, you know, my parents instilled in me when I was growing up or something. Or the same thing with the grades, I do it for myself, I want to do for myself but, um, but yeah I really think soccer kind of like molded me into someone that just is like, you know what, if you want, go work for it. Go work for it. And you may not get it right away, but if you stay persistent, other people will start to drop that might increase your chances of actually getting it. I think that's the major thing I can apply to anything in my life, really. And time budgeting, huge! [C25.1.E]

The effect of this developmental experience was to learn strategies for success. Alexa's story show how she later applied the strategies learned through her work on the soccer team to her pursuit of good grades, using her "work hard" formula as a life lesson she expected to apply in the future as well.

In this category, what appeared to enable the developmental effect was students' access to and use of organizational structures or of the routines taught through organizational values or traditions. For students who used an external meaning making framework, like Alexa and Stacey, they reported conforming to the structures or requirements to meet others' expectations; their way of dealing with the challenge was to follow a prescribed plan (e.g., go to the study tables three hours each night). Students who used a mixture of external and internal meaning making frameworks (e.g., Whitney), dealt with the challenge using more abstract formulas for success e.g., work very hard, challenge yourself to do your best), strategies plans that appear to be more readily transferable to future situations.

Discussion

Although learning and development is a central purpose of higher education, and Although many programs and services are implemented to promote learning and development of college students, and although students have many experiences they consider significant to their growth, relatively little is known about the nature of experiences that promote development. This study was an attempt to begin to address this question. Through the larger study of which this is a part, we were able to focus on experiences that had already been coded as "developmentally effective" experiences, or those that had the effect of stimulating students to think about more complexly about one or more of Kegan's (1994) three dimensions of development (cognitive, intrapersonal, and interpersonal). We were particularly interested in explicating the nature of the "demands" that students reported within such experiences, again following Kegan's use of this term. By better understanding the relationships among experiences, demands, and effects, it is our hope to assist educators in their decisions about how to design experiences and construct expectations in ways that are developmentally effective, promoting substantive development toward self-authorship.

In our analysis of what enabled the developmental effects, we identified three themes: exposure to new ideas, perspectives, and diverse others, discomfort leading to action, and relying on organizational structures or routines. Each revealed a salient aspect of developmental experiences. We did not start with a priori categories in mind, instead relying on the themes to emerge from the data. Since our primary interest was in the demands of the experience, we were somewhat surprised to discover that one of the initial demands categories actually focused not on the inherent demands, but on support

structures; this led us to differentiate the categories by challenges and supports, familiar concepts introduced by Sanford (1966).

The category of "discomfort leading to action" reflects the familiar idea that development often includes challenges and discomfort. This concept was introduced as "cognitive dissonance" by Festinger (19xx); Perry (1978) eloquently described the discomfort associated with abandoning familiar and once-reliable ways of viewing the world for uncertain new structures. And although action itself is not associated with more advanced developmental levels, consistency between thought and action does have such an association, as is action that is associated with an integrated identity (an example of which was recently reported by Landreman, Rasmussen, King, & Jiang (2007). Thus, this finding is consistent with other literature relating insights to action.

Another way to cluster these three categories is to view them as a common starting point and then two alternative paths toward self-authorship. For both paths, the exposure category (which reflects simple awareness) represents an initial experience in which students are challenged to think about things differently and gain new perspectives. The product of this step is broadening one's thoughts and worldviews in ways that set a foundation for further development.

The other two categories both include an action-oriented component; two forms of this were most readily apparent. The first was to bolster one's own support structures in order to face a challenge (either anticipated or early in one's experience). Here, students looked toward established organizational structures for this support by enrolling in learning communities, attending church, participating in sports team, joining a sorority, etc.). The second form was to take action in response to discomfort; this was usually an

individual action such as speaking out, changing majors, evaluating one's assumptions, etc. By referring to these as alternative paths, we are pointing out that both appeared to enable development. In both categories, student responses included taking an action in response to how they perceived the challenge. However, in the first form, students acted to put support structures in place in anticipation of challenges to come; in the second form, students resolved the discomfort prompted by the experience without mentioning support as salient to the decision. To use the Sanford language, in the first form, students create or confirm the availability of support structures; in the second form, students face challenges, experience the discomfort, then find support (starting to resolve the discomfort) through action. Either way, an educational implication is to attempt to assure that adequate support is available to help students face the challenges of college life, understanding that some will seek it out in advance, and other will do so after experiencing the challenges and to understand that these can both be routes toward learning and development and ultimately, toward self-authorship.

Whether these two developmental paths are apparent in other data sets will require additional studies. Further, an analysis of changes in these pathways will require longitudinal data; this would indicate not only the existence of these pathways, but the developmental implications of exposure to different kinds of experiences. Such data could also be used to determine whether the effects of participation in these experiences and the ways students respond to different demands also change over time in ways that are consistent with or divergent from developmental trends. Future research could also examine whether there are differences in developmentally effective experiences by student background variables (e.g., cultural backgrounds, major), or by institutional

variables (e.g., campus intellectual climate, structural diversity, institutional type). Such information could be very helpful to educators designing programs for students.

Studies that link the genres of student outcomes and student development research offer rich theoretical and research traditions from which to better understand the mental demands of college life, and the nature of the experiences that effectively promote student learning and development. Educators who aspire to create experiences that make demands on students resulting in developmentally effective experiences will be well-served by better understanding the nature of these experiences.

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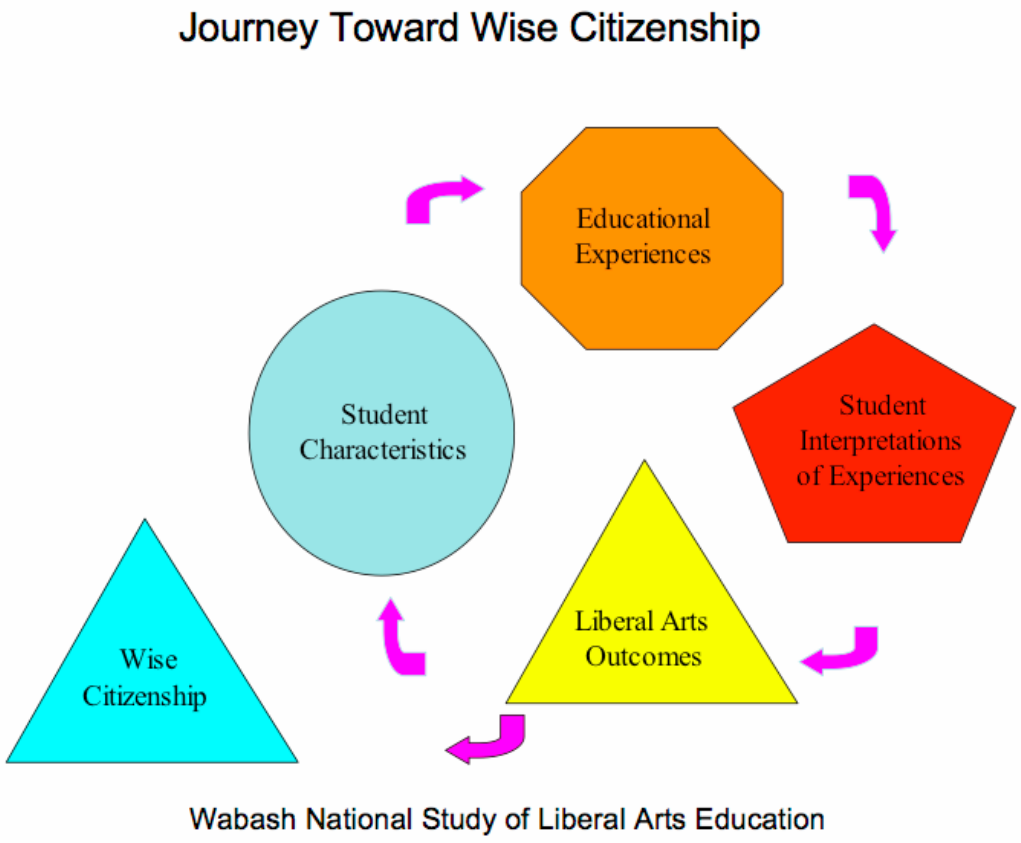

Figure 1: Conceptual Foundation of the Wabash National Study Interview