Reflection is critical to making sense of our experiences. If we are going to engage students in experiential education then it is important

# Journey or Destination: A Study of Experiential Education, Reflection, and Cognitive Development

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## Abstract

Reflection has been used extensively as a valid tool in the area of experiential education as a means to link theory and practice and to create a frame of reference that holds the two together for the individual. The paper analyzes the relevant literature on experiential education and reflection. It then employs Robert Kegan's subject/object theory as a conceptual framework for cognitive development. The three areas are brought together within this framework to further understand the linkage between experiential education, reflection, and cognitive development. This study utilized surveys and interviews to assess the development of students through their guided reflection experiences in an experiential education context. Some of the major themes that developed were definitions of success, critical analysis of skills and abilities, and the development of confidence.

*Life can only be understood backwards; but it must be lived forwards.*
*Soren Kierkegaard*

that we guide our students to reflect on these experiences in order to achieve maximum potential (Laws, Rosborough, and Poodry 1995). But what does that link look like and how do we know there is a link between experience, reflection and development. This paper assesses the effectiveness of reflection when coupled with experiential education and the results provide a look at that linkage.

## Experiential Education

Experiential education can be traced back to the Greek culture where active learning was the standard. Modern education through the writings of Forebel and Rousseau resurfaced the idea of activity as a central component in learning (Dewey, 1964). John Dewey then refined this tradition, by developing an approach that utilizes the concept of *experience* within an environment that is natural to the student, not contrived. His main argument focuses on education as the *reconstruction of experience*. He claims that this implies that selection must take place where certain experiences are more desirable than others. Students must take the chance to "test themselves against the real world and, thereby, be able to choose what is good and necessary and discard what is useless" (Dewey, 1964). It is in this testing, with effort that growth occurs.

*Kolb's Theory of Experiential Education.* Kolb (1984), one of the leading experts on experiential education, takes Dewey's ideas and puts them within a framework of understanding: "Learning is the process whereby knowledge is created through the transformation of experience" (p. 38). Kolb is responsible for the theoretical base and framework for approaching experience as an essential part of the curriculum.

Kolb's theory suggests that learning proceeds through a cycle. Importance is placed on the integration of new experiences with past experiences; this is brought about by reflective activities (Papai, 1999). Kolb's (1984) learning cycle explains that "experience is translated into concepts which in turn are used as guides in the choice of new experiences" (p. 2).

*\*\*Only experience that is reflected upon, seriously, will yield its full measure of learning and the reflection must aim at testing the newly refined understandings by further experience. Our duty as educators is to provide experiential opportunities and to make sure they produce learning. That is, we must provide the framework regularly analyzing the experience and forming new concepts and theories, and submitting these concepts to the test of experience.* (Miller, 2001, p. 12)

As Miller infers, it is irresponsible for educators to offer experience without its corresponding reflection. This aspect of reflection is included in the frame of reference provided by Kolb.

**Reflection**

*To act responsibly, we must know who we are.*
*William Sullivan*

Mezirow defines reflection as the *turning back* on experience. He claims it can mean many things: "simple awareness of an object, event or state including awareness of a perception, thought, feeling, disposition, intention, action, or of one's habits of doing these things" (Mezirow, 1998, p. 185). He also includes in his definition the idea of "letting one's thoughts wander over something, taking something into consideration, or imagining alternatives" (p. 185). Others take Mezirow's thoughts a step further by looking at reflective practice as a process in which one mulls over experiences **and** evaluates them (Boud, Keogh & Walker, 1985)(emphasis mine). Reflection will be defined in this study as not only the contemplation of an issue or event but the ability to make an assessment in order to effect change in the contemplator's established frame of reference.

*Journaling as a Source of Reflection.* Journaling is often used in higher education to bring about reflection in the classroom through the use of guided reflection practices. Having students reflect on their experiences through journal entries, classroom discussion and papers are common tools to bring about this reflection (Bush, 1999; Ginsberg, 1986; Jarvis, 2001; Jasper, 1999; Peyton, 1988; Pultorak, 1993).

Journaling becomes a mechanism in which students in the experiential education process can participate in critical reflection and enhance their ability to attach personal meaning (Alm, 1996; Carter, 1998; McMahon, 1997; Yost, Sentner, & Forlenza-Bailey, 2000). The effectiveness of journaling is limited by the ability of the individual to engage in critical reflection. Often active guiding of the reflection process is needed to enrich learning (Daudelin, 1996).

**Changes of the Human Mind: Kegan's Subject/Object Theory of Human Development**

Psychologist and educator Robert Kegan constructed a theory of cognitive development and the ability of an individual to make sense of their world. He indicates that this sense making is an ongoing process from birth to death. Kegan posits that we develop through levels of consciousness or capacities of mind. This begins with birth where a child (typically under the age of six) is in the "fantasy" stage and things do not have any permanence. Eventually children move to a state where they are aware of the outside world and themselves. They recognize that each person has a set of capabilities and preferences that are distinguishable from others and are somewhat permanent. Kegan classifies this as durable categories or the categorical frame and he labels it the second order of

consciousness. This stage is typically operative through the teen years.

Within the second stage the individual is limited by an ability to objectify her own beliefs, acts or perspectives. To be able to develop a perspective on her beliefs, acts or the world itself, she must have a different order of mind, the interpersonal, cross-categorical third order of consciousness. In this stage she can think abstractly, reflect on her own emotions and become capable of engaging in a community of people whose ideas are larger than her own. In short, she is developing the ability to be more *objective* about the world and not be completely *subject* to the outside world. Kegan claims this is an important developmental step. Kegan states "we have object; we are subject. We cannot be responsible for, in control of, or reflect on that which we are subject" (Kegan, 1994, p. 32).

Kegan moves on to the fourth and fifth level stages of consciousness that are somewhat beyond the scope of this project, but the principles are important to fully assess the developmental process. The fourth stage occurs when she views herself as part of a complex system that incorporates others, knowledge, feelings and morals. That allows her to step back and gain perspective on the system she employs to make meaning. The fifth stage moves the individual from her system to allow for room for a new system that incorporates room for other systems in addition to her own. This stage represents the evolution from modern to postmodern thought (Kegan, 1994, p 312-316).

The second stage is where traditional-age college students are normally operating when they arrive on campus. They are using the categorical frame of reference but are developing the capacity to transition to the cross-categorical. Kegan's lens allows us to view the movement between cognitive development stages.

**Framework of Inquiry**

Laws, Rosborough, and Poodry (1995) look at inquiry as made

> *critical by the participants of the partnership engaging in rigorous questioning and then conducting constructive dialogue as they examine descriptive data and compare it to existing knowledge, their programmatic values, and their practical wisdom. The heart of inquiry resides not only in being critical, but also in being collaborative and directed at action . . .* (p. 28).

Journals can function as the constructive dialogue that examines the student's experiences and compares it to past experiences. Using guided reflection can assist the students in their inquiry and move the

students forward in their reflection. The heart of the inquiry would be in the idea of moving beyond just reflection to analysis and action; thus, the change in mental capacity as seen in Kegan's model. This approach provides the framework that will be followed in this study.

**Methodology**

This study was conducted to assess the use of guided reflection in an experiential education setting as a means of cognitive development. For the purposes of this study, experiential education is limited to an internship experience defined as an academically based experience for students in which the student integrates classroom theory with practical work experience. Reflection is defined as the idea of focusing one's thoughts on an experience, processing the thoughts, and analyzing them to a point of making a decision, changing an action and/or one's perspective.

*Program.* The sample was drawn from student participants in an experiential education program. This program offered students the opportunity for internship/cooperative education experiences in addition to their classroom experiences. Students could engage in an internship for credit or not for credit. The for-credit students were required to complete formal requirements of journal writings, additional readings, classroom discussions and on-site evaluations. These students received academic credit and a course grade for their work. This internship experience was typically for four hours of credit or ¼ of a full-load. The students who had an internship experience but did not receive credit still had an on-site evaluation but they were not required to complete any of the other assignments and no grade was given for the course. A typical internship lasted three months or one semester and varied between 10-18 hours of work per week. However, on occasion, students would stay with a company for an entire year. There were also situations where the company would develop a *permanent* internship for a student who was an exceptionally good fit.

*Sample*. The sample was taken from traditional undergraduate students at a liberal arts college in the mid-west. The students were either business majors (89 %) or considering majoring in business (11%). The sample is described in the Table 1:

**Table 1: Description of Control and Test Groups**

| Descriptor | Test Group | Control Group |
|---|---|---|
| Number in Pool | 67 | 26 |
| Number Used | 48 | 15 |
| Average Age | 21.5 | 21.3 |
| Age Range | 19-22 | 19-22 |
| Male/Female | 26/22 | 9/6 |
| % Male/% Female | 54% | 60% |
| % with prior internship experience | 6% | 7% |
| Average time in internship (months) | 3.5 months | 3.4 months |

Two groups were established for comparison of outcomes from their experiential experiences. The first group consisted of students who were in a formal class with an experiential education assignment – the Test Group. Part of this course included a requirement for active reflection on their experiences. This group handed in journal writings weekly, completed the survey, and met with the researcher for a one-on-one interview.

The second group was the control group. The control group consisted of students who were engaged in an experiential education assignment but were not enrolled in a formal class. This group completed the survey and engaged in a one-on-one interview with the researcher, but did not engage in weekly journal writings. Students volunteered to be in this group which limited its size, as only 58% agreed to participate. The control group served an important function, establishing the benchmark as to the role reflection plays in linking the experience and cognitive development. If a control group was not utilized, the results attributed to reflection from only the test group would have been suspect. The use of a control group was based on Mezirow's (1998) ideas of reflecting on experience as discussed in the literature review.

*Tools and Instruments.* The tools utilized to assess development were qualitative in nature. Three different tools were developed. The first was analysis of journal writings students completed during their experiential assignment. These writings were then coded and analyzed to match Kegan's cognitive development stages. A rubric was established that identified key words and phrases within each stage of Kegan's model. Transcribed interview tapes and reflection papers were then analyzed within the context of this rubric. For example, Stage Two reflection looked for phrases that indicated lack of effort, no signs of growth, importance of others opinions, need for defined answer etc. Whereas Stage Four rubric was looking for willingness to accept the unknown, identity development, desire for growth, engagement in the process, as an example.

Memos were written to link themes (coding) to the writing of the first draft of the analysis. By writing memos that began to synthesize the data as common themes were raised to conceptual categories. Memo writing helped to join the data with original interpretations of those data and thus helped to avoid forcing the data into extant theories (Charvez, 2000; Connelly & Clandinin, 1990).

To facilitate the students' examinations of their views the journal was guided which meant the students were given questions to write on. Weekly discussions supported their thinking and reflective practices. Some of the questions included:

- What type of work did you do this week?
- How did you feel about your work outcomes?
- What did you learn about the profession this week?
- What did you learn about yourself this week?

Other questions asked students to probe more deeply into their understanding of the context they were in and their experiences within that context, on a professional, social, skill and cognitive level, for example:

- What skills did you improve upon this week? How did that happen? How do you know that you improved your skills?
- Did you receive any feedback this week from your supervisor? Was it positive or negative? How did it make you feel?
- What did you learn about yourself and how you fit into the context in which your internship has placed you? What information does this give you about future contexts in which you would like to find yourself?
- How would you define your worldview? (This question is repeated over time) Has it changed, grown, become enhanced or solidified through this experience?

Students were provided with feedback on their journals. The professor read each journal entry. The professor then provided written comments on the journals to encourage the students to think more on the subject matter. The comments asked the students to observe the context regarding this issue identified, think more on a given subject matter or asked probing questions regarding a reflection. The students were then required to address these comments in their next journal entry. This tool was only utilized with students who took the class for-credit.

The second tool was a survey at the end of their assignment. These surveys asked students to reflect and comment on their experiences. Students were given open ended guided questions and they were asked to write out their answers. These surveys were given to all students who were part of the study.

The third tool utilized was an interview. Unstructured interviews were conducted with students engaged in the study upon the completion of their experiential experience. These interviews asked students follow-up questions to the material presented in the survey and when applicable, their journals. This allowed the researcher to use the conversation to probe deeper into some of the comments that were not clear in the journal reflections or survey results. Interviews were conducted with all students who participated in this study.

The qualitative approach seeks to describe the meaning of central themes in the activities of the subjects. The main task in interviewing is to understand the meaning of what the interviewee is saying (Kvale, 1996). This is particularly important in this situation to follow-up on the information presented in the written comments and to allow for additional comments to emerge. In these interviews the general guide approach was used to make sure the same areas were addressed with each subject, but to allow the researcher to probe deeper when needed. Each subject was asked to reflect on the same topics to insure consistency between the interviews. The goal of the researcher was to capture what the interviewee thought about the topics. Interviews were tape recorded with permission of the subjects, transcribed the material and then coded the qualitative data using the same rubric defined earlier.

## Results

Through the surveys and interviews the students' answers provided a rational for sorting the participants into three categories. The first category comprised the **control group** (n=15). These students had no reflection built into their work experiences.

The next two groups were separated by using interview data to determine their level of reflection. **Low reflectors** (n=30) comprised the second group, mainly students who participated in the course. Although reflection was a requirement, they did not take the exercises seriously and failed to engage fully in reflection.

**High reflectors** (n= 18) showed a high willingness to reflect on their experiences. Their motivation to engage in reflection noticeably exceeded the motivation of low reflectors.

From the analysis of the reflective writings and the interviews, several important themes were identified: internship as a journey, evaluation of abilities, defining success, and confidence. Each of these themes was articulated differently by the three groups.

*Internship as a Journey.* One question required students to view their internship as a journey. They were asked to reflect upon their experiences in regards to this analogy. In general the three groups discussed

their journey in very different terms. The first group, the **control group**, saw their experiences as a means to an end (10/15 respondents). Paul indicates that his experience was just a step in the process to find a job when he graduates. His experience did lead to a full-time job, however he states that it is not a job he really wanted but it will work for now to pay the bills.

Sue stated "my internship has not really been a journey because I have done the same job the whole time I was there. It has become a job that has put me through college." Since she did not see an increase in responsibilities she was not able to see how she could have learnt anything from the experience or glean any growth from being in the environment. Other comments from Sue confirmed this lack of journey as she could not delve into any issues with much depth; she was only capable of repeating back information. This group tends to see their experiences as an event/happening instead of a learning process.

The **low reflectors** viewed their experiences in a more educational manner (21/30). They were willing to learn and grow but wanted to arrive at a destination upon completion. They wanted to see the results of the experience as a completed product, something they could check off their list. Mary indicated that she had many hills on her journey and they "made me wonder if maybe I was on the wrong road altogether." She also states that "when I am done with my internship I will have a clearer view of what my final destination will be and then I can share the things that I have learned on my trip with others." She wants a defined destination.

Toni equates her journey to a foreign country. She feels like a foreigner and "longs to be home again." She indicates that there is a right way to go on this journey. "There were many times where I felt myself getting lost, not knowing what to do or how to do it. I pulled over when I found myself getting frustrated and I was able to ask for directions and set out on the right path yet again." Even though she was lost on more than one occasion she was always seeking the *right* path. She was not comfortable in this *foreign* land of self-discovery; she wanted a path that led to a destination – home (comfort).

This group seemed to realize that the experience was more of a journey. Struggle was apparent, but they were not willing to rest in their ambiguity. They wanted answers or as they defined it a *destination*.

The **high reflectors** saw their journey as a process (16/18). They were not as intent on seeking a destination; rather they were willing to accept some of the ambiguity. Aaron indicated that "one facet of this journey has been self-discovery. . . I have discovered much about myself on this journey and have much more to discover."

David states that in his journey " . . . the destination is unknown. I have yet to define what that is and that is ok . . . I am a blank piece of paper and this experience will leave some marks on this paper, but it is just part of the process."

Mark went as far as to deny it was even a journey because that indicated there was a destination. He wanted to equate it to the sculpting of clay where you can "create something of your own and then if it doesn't look like what you wanted it to you can start over and try it again." He goes on to say there "are not formulaic ways to do this, it is up to me to create something."

This group tends to be more willing to engage in the process without looking for immediate answers. When they were defining the benefits of the experience they were looking to themselves for answers and not to outside sources as Mark indicated when he said it was up to him to create something. When the journal writings were revisited with this group it appeared that they were more willing to take the probing questions and reflect on them, they were able to wrestle with the questions and not seek out an answer immediately. Rather they engaged in an iterative process of reflection.

*Evaluation of Gifts and Abilities.* Another theme that emerged was the assessment of ones gifts and abilities over the course of their educational experience. This was difficult for many of them to do. Again, the three groups differentiated themselves in their answers.

The **control group** was able to quickly list off their abilities in a rather efficient manner (14/15). They often saw their beginning skills consistent with their ending skills. Sue states that "I have not honed my skills, really. They are the same as when I begun (sic)." She shows no desire to grow in these skills as she goes on to say "I could (grow in my skills) if I put forth the effort because my supervisor is very flexible with what work I do." When asked why she does not take that initiative. She indicates that she has the experience on her resume and that is all she needs. This confirms the means to an end approach discussed earlier.

The **low reflectors** were better able to assess their gifts and abilities as a whole (28/30). They often saw growth and could then discern the applicability of their gifts for a career opportunity. Mike indicates this when he discusses his growth. "I am more aware of the depth of my abilities and how my abilities are suitable for a type of career which I wish to pursue." Deb states that "this internship has allowed me to be able to evaluate what I am good at as well as the things I need to improve in order to be a great businesswoman someday."

Often students assessed their gifts on how external sources viewed them, such as a supervisor or parent.

Tom indicated that he saw growth in his skills after his supervisor pointed out some of his strengths. "I never really thought my writing was very good. Then I received positive feedback on my writing from my supervisor and I realized this may be one of my skills." This external definition of skills is an interesting point in Kegan's frame. This may place a student in the transition into the third order as the student is beginning to see himself as part of a larger system.

**High reflectors** were better able to assess their gifts and apply them not only to career options, but to a larger context as well (14/18). Kerri was able to see how her people skills helped her not only be a better worker, but work well with others.

> *"There is a definite difference between being able to get along with almost anyone and actually being able to work with or around most people. At my job all the co-workers are completely different. . . . to work with some of them can be hard. I have learned not to take things personally and to try to understand others. This does not increase my technical skills but I can definitely say that my skills include a stronger ability to work with others."*

This would place Kerri again in the context of realizing she is in a larger system, thus indicating operation in the third order and possibly the beginnings of a transition into the fourth.

We see a development in this thematic area. The **control group** seems to fall in the second order where the students are not yet able to objectify their abilities. Low reflectors are beginning to transition as they are attempting to define their skills in a larger context, for example career definition. However, it is still very focused on the self. The high reflectors are moving to third order where they see themselves as part of a larger community of diverse people with diverse ideas and needs.

*Defining Success.* An interesting idea that came out in many of the conversations was the idea of defining success. Throughout the journal entries, interviews, and surveys students engaged in experiential education were thinking about what success meant to them. Their view of success was being challenged in many cases and they needed a new definition that they could work with.

The **control group** generally defined success through achievement on the job (12/15). Mark states "If I do well in my position, I will be successful in the field." This group was the most willing to hinge success on job performance. This is very similar to **low reflectors** who also saw success as embedded in their performance (20/30). If they received positive feedback from others, a good evaluation, or a complement they identified that with being successful.

They did not challenge the outsider's view of success or the criteria they were using to evaluate their performance; rather they accepted the definition of success that others offered. Grace said she was successful when "she was accepted and a part of the team." Grace goes on to define success "not in what you know, but in who you know. If you know the right people and work hard towards your goals you will be successful."

The **high reflectors** could not easily define success (15/18). They were willing to recognize the ambiguity of the term and withheld a definition until they could better assess its meaning. When they were pushed on what it meant, they were looking at success as an action not an object. They would say things such as success is: "doing what you were meant to do", "finding your fit", "determining your passion and finding a job that meets that passion." They were looking at success as something that was internally driven versus externally defined. Evan's statement is indicative of this last group.

> *"Success is not making money or achieving a higher position within the organization. How do you define that someone is successful and someone is not? . . . Success is not the position, but what you stand for and what kind of human being you have become. . . When I search for a future career in the business world, I will be looking at the company as much as they are looking at me. I want to work for a company that upholds the same values and ideas that I uphold."*

This final group was exclusively made up of **high-reflectors**. This group had the ability to remove the external voices and determine their own voice. They had a better sense of who they were, what they wanted to accomplish, and how that fit with career goals and a sense of success. They were willing to toss aside the externally determined success factors and start with a blank sheet to define their own. This may signify a move away from subject towards object. Again, journal entries in this category showed a willingness to dig deeper and push towards a conversation.

*Confidence.* One theme emerged that fits nicely with the idea of experiential education, however, it was a theme that did not occur prior to the study. It was also a theme that was not as readily identifiable by a certain type of reflector, although it showed itself with more frequency in the high reflector group. This theme was one of confidence

As students progressed in their journal writings and their experiences, over time confidence was gained. As students were able to gain confidence in either their

ability to do the job or their ability to reflect, the reflections gained depth and perspective. This was an interesting idea that became apparent in the interaction with **high reflectors** (11/18).

Linda was a student who was participating in her second experiential education course. Her first experience was a good placement; however, she was not able to fully realize the benefits of the experience because she did not take full advantage of them. Confidence in her abilities was lacking. In Linda's second experience she was given more responsibility from her supervisor and she worked more independently at her placement. She talks about confidence in her interview "I have more confidence . . . I have sharpened my communication and other skills through this internship . . . I have definitely fine-tuned my skills . . . I feel very confident that I have a sure foundation to begin building a career." She gained confidence in her skills and abilities and this became evident in her writing. She began to write more objectively about herself and step back and see what was needed to be done to effect change.

In February, Linda discussed being scared and unsure about graduating but in her writings three months later she states "In February, my life was completely changing, where I felt completely overwhelmed by all the changes that are and will be taking place in the next seven months. I thought to myself, 'After I leave college, what will separate me from the rest of those around me? What will I take with me that will keep me from being one of the rest of the aimless people out there striving for material things that will not satisfy.'?" Linda took large steps forward in her thinking during this last experience.

Although Linda had two internship experiences many students who only had one also expressed this sentiment of gaining confidence through feedback from the supervisor, customer, or co-workers and how that impacted their view of what they could do. Matt discussed that "before this internship I lacked the confidence needed . . . this job has taught me to be confident with people and sympathetic to their needs . . . this has definitely helped me to become a better salesperson . . ." This would lead to the conclusion that it was not necessarily based on length of experience, but rather on the confidence received through feedback and possibly through reflection.

Tim discussed the "fear of messing up" as a detour on his journey. He says "I got around that detour pretty fast, as I gained experience and saw that I could do the job, the fear was gone."

Amy was a student that was focused on what others thought but as she gained confidence she was able to remove the external requirement for success. As confidence was gained she was also able to move from finding *the job* to finding *a job that fit her*, once again

removing the external requirement. "Once I realized I could do this, the fear was removed. I now know I have something to offer. I don't need to settle on a job that others define as good. I can find a job that I want to do."

As confidence increased these individuals were better able to define themselves and what they wanted to do  Once again removing the external source of criterion, they were looking more objectively at their situation.

**Discussion**

Several interesting themes were found in the collected data. A deeper examination of these themes will aid in assessing the link between experiential education, reflection, and cognitive development.

*Growth.* It became evident through the reading of the data that a significant portion of the group, at least (41/48) that engaged in some type of reflection, exhibited growth in their thinking. This was assessed through analyzing journal writings over time as well as survey and interview data and comparing these results to the control group. This occurred even when reflection was forced upon them. This learning seemed to be situated in the experience of engaging in the work place and actively reflecting on what was occurring.

This growth signifies a movement of the students from a received-knower position, one where they simply reflect back what they believe they are supposed to say to a constructivist-knower position where they can comfortably integrate the object of study with which they are and what they believe (King & Kitchener, 2000). This growth was evident across the various topics addressed. As the students allowed themselves to reflect "more" or "deeper", there was corresponding growth in their ability to assess the situation and/or experiences. This seemed to move within the framework of Kegan's subject/object continuum.

*This was determined by looking at the journal writings, survey and interview data. By categorizing the responses into themes and cognitive stages, growth was observed over time and through reflection.*

*Guidance and Direction.* The practice of journaling/reflecting was clearly beneficial to the participants, but only to the extent that guidance and direction were provided.

One student expressed this well in his reflection on the usefulness of the journals. He discussed journaling as part of his journey and then used the analogy of a photo book. "If this whole book was full of pictures, in ten years I may not have any idea what this trip was like, or what I learned about when I was there. Pictures give me a good visual idea for what journeys I partake in, but it is really the words that make an

adventure vivid and describable." Capturing the idea that reflection (words) on the events (pictures) gave it meaning and purpose.

Students commented on how journaling forced them to step back and think about how things were versus simply thinking about how they could make things be. Mary states this in the following quote: "By journaling and receiving feedback on my reflections I was better able to look at how things were and then think about changing them. I typically jumped to quick solutions. The guidance was helpful. I don't think I would have done that on my own."

Students were able to move forward in their thinking even more when they took the feedback offered and were willing to engage in processing the feedback and rethinking their reflections. This guided reflection and iterative reflection practiced showed a gain in their development.

Students who were in the control group also *reflected* on their experiences after the fact through the surveys and interviews. But we did not see the level of reflection that we saw in those who engaged in journal writings through the process. This is evident through the results shared around the various themes and the corresponding stages of cognitive development observed.

Instructors/facilitators must learn how to give accurate and appropriate feedback to help push the reflectors to think more deeply without pulling them to think as they (the instructor) do.

*External Source of Definition.* As the students were pushing their thinking they were better able to rely on themselves as a source for defining career objectives, adequate job outcomes and as we saw earlier in the paper, defining success. This ability is a signal of beginning to transition between third order to the fourth order in Kegan's frame. To reconnect with the framework, Kegan defines object as "those elements of our knowing or organizing that we can reflect on, handle, look at, be responsible for, relate to each other, take control of, internalize, assimilate, or otherwise operate on." He contrasts that with subject as it "refers to those elements of our knowing or organizing that we are identified with, tied to, fused with, or embedded in" (Kegan, 32). When we gain the ability to stand apart from our relationships we have the ability to operate on it. In summary, Kegan stated, "We have object; we are subject" (32).

This is exhibited in David's experience with reflection that allowed him to envision how he would define himself instead of accepting someone else's definition. "As I reflected on my experiences and realized that I could do it, I was better able to look at myself and define what I was able to do versus accepting someone's view of what I should be doing."

The ability to remove external sources of information and rely more on oneself to create direction and definition is a significant growth in cognitive ability. Very few of the participants were able to do this completely, but as outlined previously many were in the beginning stages of this development.

*Implications and Future Research*

Our students need to have a better understanding of how to reflect, in order to reap the benefits of engaging experience. Critical reflection is not a natural skill for most and it needs to be discussed in the classroom. This study utilized a classroom where reflection was required, but there was not a formal presentation or teaching on the practice of reflection. Feedback was given over a limited period of time. However, this study shows that as students are pushed to reflect, their ability to think more clearly and objectively is enhanced. If the time period was increased and reflection was "taught" instructors and facilitators might help the students find their lens and their voice earlier in their reflection process. Guidance and direction are critical tools for the teacher to employ in order to realize the potential of growth in the students more fully.

This is a welcoming area for pedagogical research. We must address questions such as: How can we best guide our students? What type of direction is most effective? At what level of direction do you move beyond pushing into pulling? These questions were beyond the scope of this project but would be beneficial additions to this conversation.

Secondly, the idea that reflection and experiential education can increase confidence and that confidence can then be a catalyst for growth in not only skills but cognitive abilities, is an interesting idea.

This concept has two key implications. Practically, we must train on-site supervisors and instructors to be the type of mentors that instill confidence in their students. This will help students to develop and gain the most from their experiences. Secondly, we must conduct further research to assess this alleged link. It is not clear how much mentorship is needed, how the confidence is gained, and whether the students already had a level of confidence prior to starting the internship that primed them for this growth. These questions were not included in the original survey or interviews because it was not a theme that I had foreseen. It would be an interesting idea to develop.

Finally, the scope of this study needs to be expanded to further assess this link between experiential education, reflection, and cognitive development. The length of the study needs to be extended beyond three months. In addition, the number of **control group** needs to be larger so a more comprehensive comparison is available.

## Conclusion

This study offers many intriguing insights that allow us to take a step forward in our understanding of the link between experiential education, reflection, and cognitive development. There seems to be a link but there are still many questions that need to be asked before the link can be fully evaluated.

Kegan uses an analogy of a two dimensional world and spheres. He discusses the introduction of a sphere into a two dimensional world and claims that the participant has to decide what to do with the new object. If they are not capable of processing the new dimension that has been introduced to them they will simply see it as two-dimensional and not experience the dissonance. If they are developing skills that allow them to make sense of the aberration or at least struggle with it they may have the capability to move to the next level of cognitive development. Experiential education could be viewed as a tool to dispense spheres, pushing students through reflection to analyze the spheres, accept their reality and develop a new lens for viewing the world.

It is evident that as students take their own experience and questions, explore their knowledge and way of knowing with some level of interest and direction -- growth occurs. This growth allows students to continue on the journey without arriving at "the" destination.

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