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Linking Developmental Themes to Theories in the Autobiographical Narratives of Life-Span Development Students

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Abstract

Prior research findings point to the efficacy of using autobiographical life-story narration as a learning tool in undergraduate classes. The current study seeks to add to the existing literature on this topic by performing a qualitative analysis across events recorded in students' autobiographical narratives. The purpose of this analysis is to assess student learning of preselected developmental theories (Piaget, Schaie & Willis, and Erikson). Participants were undergraduates (N = 108) enrolled in introductory life-span development classes at a public state college in the southeastern United States. Participants composed three written assignments of a flowing narrative quality due at designated time intervals throughout the semester. The first assignment covered infancy through preschool (0-6 years); the second, the elementary school years through adolescence (7-19 years); and the third, early through late adulthood (20 years onward). In completing their assignments, participants conducted an introspective analysis of their own development (past, present, and realistic speculations about the future) in terms of applicable developmental principles. The data were analyzed for correct and incorrect links between dominant themes and corresponding developmental conceptions. Results are discussed in light of participants' content learning in the context of each preselected developmental theory. Implications for undergraduate teaching, learning, and assessment are also presented.

Keywords: Autobiographical narratives, narrative psychology, constructivist pedagogy.

Everyday cognitive activities depend on generalized abstractions derived from life experiences encoded in memory (Binder & Desai, 2011). Consequently, narrative psychology holds a prominent place in the retrieval of autobiographical memories that are relevant in analyzing and explaining individual development. As McAdams and McLean (2013) explain: "Narrative identity is a person's internalized and evolving life story, integrating the reconstructed past and imagined future to provide life with some degree of unity and purpose" (p. 233).

Developmental researchers and theorists have long discussed the importance of introspective reflection in constructing and understanding the various stages of the life cycle. For example, Fivush and Haden (2003) examined the origins of story comprehension and storytelling in childhood, whereas Habermas and Bluck (2000) investigated the emergence

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of life-story schemas in adolescence. With regard to memories of educational episodes from the college years, Pillemer, Picariello, Law, and Reichman (1996) demonstrated that most college students and alumni recount impactful events (e.g., highly emotional encounters) that they deem to possess pervasive influence in their lives. Focusing attention on the latter portion of the life span, Bruner (1999) associated successful aging with the self-credibility that people derive from running after-the-fact narratives about events in their own lives.

Over the past two decades, research has emerged that explores autobiographical memories within the overall structure of prominent theories of development. This investigative track is consistent with Reichenbach's (1938) pioneering description of the *context of discovery* (see Schickore & Steinle, 2006, for a more contemporary analysis of this topic). From this perspective, researchers examine open-ended narrative accounts for the presence of recurring broad themes and qualitative characterizations. In early discovery research with developmental implications, Thorne (1995) used personally salient, event-specific, retrospective reports to investigate age-related changes in young adults' memories of childhood and adolescence. In doing so, the researcher uncovered patterns that reflect well-known developmental theories. By taking into account the developmental stage of the event, Thorne identified the type of memory recalled from a given age. For instance, consistent with the respective psychosocial stages in Erikson's (1950, 1959, 1968) life-span developmental theory, memories about encounters with parents and wanting help dominated in childhood. On the other hand, memories about encounters with close friends and desiring intimacy appeared with increasing frequency by mid-to-late adolescence. Subsequently, Conway and Holmes (2004) studied older adults' memories from each decade of life. Based on a content analysis of resulting memories, they also found a systematic relationship to Erikson's psychosocial stages.

In yet another early investigation with developmental repercussions reflective of the context of discovery, Rothenberg (1994) implemented an open-ended, qualitative analysis of descriptive essays on the best and worst school memories of college students. Within one thematic category, Rothenberg found that many of the memories of school successes and failures relate to Erikson's description of initiative, competence, and identity as developmental tasks that people must accomplish at successive stages in the life cycle. More current research involving undergraduate students has also shown that autobiographical memories of school emphasize social situations as opposed to academics; once again, with obvious connections to Erikson's psychosocial stage theory. For example, in studying undergraduate autobiographical memories of school grades 1-12, Walls, Sperling, and Weber (2001) discovered "evidence of developmental progression from the importance of authority to the importance of peers" (p. 126). Even more recently, related research (Haught, Nardi, & Walls, 2015) favors these earlier findings about the preeminence of social scenarios in autobiographical memories. So expected is this observed research outcome that to counter the likelihood of discovering social elements of memories superseding academic ones, Haught, Nardi, and Walls (2016) offered prompts to undergraduates to provide the necessary framework to draw on their academic memories.

Haught et al. (2015, 2016) have also examined the underlying learning implications tied to autobiographical memories. As captured in these authors' words, "'memories of school' and the formal and informal learning experiences associated with them may influence behaviors and subsequent choices [e.g., career choices]" (Haught et al., 2016, p. 825). This research focus is compatible with that adopted in other studies aimed at investigating autobiographical life-story narration as a learning tool. In the framework of teaching developmental principles, narrative accounts of individual development have been used successfully to improve undergraduate learning. In an early anecdotal report, Clinchy (1995) elicited and explored learner-generated narratives of personal experiences as a means of encouraging developmental psychology students to construct knowledge about course content. Consistent with Clinchy's classroom observations, the present author has found both quantitative and qualitative evidence in support of the pedagogical effectiveness of life-story narration in teaching introductory life-span development classes (Mayo, 2001). In writing a *Life Analysis* (Mayo, 2001), a semester-length autobiographical narrative project, each student analyzed his or her life in theoretical terms over both its historical and hypothetical span. This assignment required students to combine knowledge of life-span theory with realistic self-assessment from birth through death. For the developmental periods that had already transpired, students provided an introspective analysis of important life events. For developmental periods that had yet to arrive, students discussed anticipated life successes and disappointments. Two sample excerpts are offered from selected life analyses to clarify the basic parameters for completing this assignment. The first excerpt, composed by a middle-aged female student, invokes an early childhood memory. The second except, written by a young-adult male student, describes an anticipated life event in late adulthood.

> *Excerpt 1*: At three years of age, I thought that the moon was actually a living and breathing person who could come down from the sky and sing to me. As illogical as it now seems to me in adulthood, I had apparently come to this conclusion back then from watching children's cartoons where the "man in the moon" would bounce off musical notes as playful tunes sung in the background. Piaget discussed early childhood experiences like this one as preoperational illustrations of *animism*, or assigning human-like attributes to inanimate objects.

> *Excerpt 2*: Looking ahead to my late adulthood years, I will draw strength from reflecting on my earlier life experiences. In reminiscing about the past, I will view my failures as learning experiences and my successes as many. In this way, I will develop what Erikson called a sense of *ego integrity* that I have accomplished much throughout a happy and productive life.

Purpose of the Present Study

In the current investigation, the Life Analysis project is revisited with another group of undergraduate students from classes in life-span developmental psychology. The Life Analysis, as an autobiographical life-narrative assignment, was validated previously as an effective pedagogical tool in relation to more traditional didactics (Mayo, 2001). Consequently, the purpose of the present study is to perform a qualitative analysis across the

events recorded in students' autobiographical narratives. This analysis, in turn, is intended for use in assessing student learning of preselected developmental principles. In this qualitative analysis, both the psychosocial and cognitive domains of development across the life cycle are examined. This represents the first time that such an analysis is undertaken within the cognitive realm of development. Congruent with the underlying purpose of earlier reports (e.g., Conway & Holmes, 2004; Walls et al., 2001), the primary research goal in these two domains is to converge dominant themes and patterns with conceptions from several theoretical perspectives of noteworthy significance in the field of human development. As is the case in past reports (e.g., Rothenberg, 1994; Thorne, 1995), Erikson's life-span developmental view once again serves as the undergirding theoretical framework for exploring psychosocial development. Piaget's (1926/1959, 1929, 1936/1952) cognitive developmental theory and Schaie and Willis' stage theory of adult cognitive development (Schaie & Willis, 2000, 2002) operate as the theoretical backdrops for examining cognitive development.

Method

Participants

Participants were 108 freshmen and sophomores enrolled in one of four sections of a course in introductory human growth across the life span for which the present author served as instructor of record. These course sections were offered over two consecutive semesters, two sections per semester, at a public state college in the southeastern United States. There were 63 females and 45 males who ranged in age from 18 to 51 years (M = 23.61). Approximately 91% of participants were spread among the following college majors: psychology, sociology, and allied health. The remaining participants were either teacher education or business majors.

Instructions to Students for Completing the Life Analysis

The instructions issued to students for completing the Life Analysis project, which were essentially the same as those employed in prior classroom-based research (Mayo, 2001), are described earlier in the present paper. Instead of requiring a completed Life Analysis journal (replete with a designated number of short diary-like entries spanning the life cycle, in chronological order, from infancy through late adulthood) due at the conclusion of the semester, the learning project in the present study was divided into three written assignments of a flowing narrative quality due at designated time intervals throughout the term. Each assignment counted equally as 10% of the final course grade. The deadline for submitting each assignment corresponded to the conclusion of coverage of the respective developmental period included in that segment of the course. Overall, seven developmental periods were canvassed: infancy (0-2 years); early childhood (2-7 years); middle and late childhood (7-12 years); adolescence (teen years); early adulthood (20-40 years); middle adulthood (40-60 years); and late adulthood (60 years onward). The first assignment pertained to infancy through the preschool years (0-6 years); the second, the elementary school years through adolescence (7-19 years); and the third, early through late adulthood (20 years onward).

Each assignment contained between four and six computer-typed pages (not including the title page) written in accordance with current APA style guidelines. Photographs, diagrams, drawings, or other illustrations appeared in a separate, attached appendix that did not count toward fulfilling the stipulated page requirement.

In composing their projects, students conducted introspective analyses of their own development in terms of applicable developmental principles. For past developmental periods, students were encouraged to talk with significant others (e.g., parents, siblings, friends, former teachers) in collecting historical data about the events that have played an important role in their personal development. For future developmental periods, students speculated realistically about the successes and misfortunes that they might expect to encounter in their lives. Matching the previously reported approach for clarifying the guidelines for completing the Life Analysis journal (Mayo, 2001), the contents of a sample life narrative (cognitive and psychosocial development for a fictitious preschool child) were distributed and reviewed on the first day of class.

As in the past (Mayo, 2001), appropriate measures were adopted to protect students' privacy. Students were also urged to exercise reasonable discretion in their self-disclosure. Moreover, although the option was extended to complete traditional term papers in lieu of the life-narrative assignments, none of the student participants elected to pursue this course of action. The same situation applies to the option to refuse inclusion in the research data pool.

Results and Discussion

An open-ended methodology was used in analyzing students' autobiographical narratives. Staying within the context of discovery, data analysis stemmed from a *grounded theory* approach (e.g., Birks & Mills, 2011) in which themes originating from analyzing student narratives were grounded in the content of the narratives themselves. More specifically, the research goal was to begin by systematically examining the data and then move toward discovered developmental principles as themes offered within three preselected theories (Piaget, Schaie & Willis, and Erikson).

The data set was large, consisting of the three previously described life-narrative assignments for each of the 108 student participants. Reliability of data analysis was established through inter-rater agreement. Because of the voluminous nature of the data, 50% of the data set—randomly drawn in equal proportions across the three assignments—was analyzed independently for content by the present author and a faculty colleague who also possessed experience in teaching introductory life-span development. Inter-rater judgments produced 95% agreement. Student responses that fell outside of this range of inter-rater agreement were excluded from this paper.

For the developmental time frame prescribed by each life-narrative assignment (infancy through preschool, elementary school through adolescence, and early through late adulthood), raters kept an ongoing record of the number of times that students applied given developmental principles from Piaget's, Schaie and Willis', and Erikson's theories to

support their recorded life events. A synopsis of the thematic content of each event (e.g., one-year-old child playing hide-and-go-seek) was accompanied by a brief description of the supporting theoretical application (*object permanence* as part of Piagetian sensorimotor intelligence).

As part of the aforementioned content analysis, raters categorized correct and incorrect applications separately in the process of inspecting the data. In doing so, a categorical (discrete) coding scheme was used (see Krippendorff, 2012, for a definitive overview of the methodological aspects of content analysis). A category code of 1 was assigned in each instance where developmental theory was applied correctly to life event. In contrast, a category code of 2 was assigned to each incorrect application of developmental theory to life event.

The data analysis for both correct and incorrect applications is summarized in Tables 1-3. In sequential order beginning with Table 1, the salient findings represented in each table are discussed as they pertain to the connection between dominant themes and patterns and corresponding developmental conceptions from the respective theoretical perspectives. Although not specifically addressed in any of these tables, it should be noted that no reliable pattern of gender differences was observed throughout the content analysis.

For the multiple substages within the sensorimotor stage (birth-2 years), *object permanence*, *tertiary circular reactions*, *secondary circular reactions*, and *deferred imitation*, in that order, were the developmental conceptions identified most often in students' life narratives. Students demonstrated a thorough understanding of both object permanence and deferred imitation. To typify his coming to terms with object permanence (understanding that objects continue to exist when out of the line of vision; 8-12 months), a student wrote about a story, shared with him by his parents, when he was 11 months old and had actively searched for a toy race car that had slid underneath his family's living-room couch. For deferred imitation (delaying imitation of others' behaviors as an indicator of rudimentary latent learning; 18-24 months), another student presented an instance when he had witnessed an older brother engage in a temper tantrum to get his way with his parents, and then "mentally cataloged" what he had observed for his own use months later. However, the more elevated number of incorrect applications for both tertiary and secondary circular reactions indicated that some students were unclear about these conceptions. In several instances, students appeared to have confused these notions with one another. In secondary circular reactions (4-8 months), infants begin to respond to the outside world by intentionally repeating enjoyable actions. In contrast, tertiary circular reactions (12-18 months) involve exploring new possibilities for objects through active trial-and-error experimentation. One student mistakenly cited secondary circular reactions in the instance where, as a 15 month old, she experimented with various squeeze toys to see which ones made different noises. In another case, a student wrongly tied tertiary circular reactions to the situation in which, as a 6 month old, he repeatedly shook his rattle as a means of entertaining himself.

Table 1 shows the data associated with the four most frequently cited concepts in each stage of Piaget's cognitive developmental theory. Each stage will be reviewed separately.

Table 1. Number of Correct and Incorrect Applications of Piaget's Cognitive Stage Theory.

Stage and its four most frequently cited developmental concepts	Correct application (category code = 1)	Incorrect application (category code = 2)
Stage 1: Sensorimotor (birth-2 years)		
1. Object permanence	41	1
2. Tertiary circular reactions	27	6
3. Secondary circular reactions	23	5
4. Deferred imitation	19	1
Stage 2: Preoperations (2-7 years)		
1. Egocentrism	43	2
2. Centration	34	2
3. Animism	29	1
4. Symbolic play	22	1
Stage 3: Concrete Operations (7-12 years)		
1. Conservation	44	2
2. Reversibility	37	1
3. Seriation	31	1
4. Inductive logic	26	5
Stage 4: Formal Operations (12 years onward)		
1. Hypothetical reasoning	46	1
2. Imaginary audience	39	2
3. Deductive logic	33	7
4. Metacognition	21	1

In preoperations (2-7 years), the content of students' autobiographical narratives implied an overall mastery of the most frequently cited conceptions: *egocentrism* (inability to adopt another's viewpoint that dominates thought during the preoperational stage), *centration, animism,* and *symbolic play*, in that order. In terms of the symbolic-function substage (2-4 years), a student provided an illustration of animism (the belief that inanimate objects are alive and have purpose) in the situation where he thought, as a 3 year old, that his toy cars were friends with whom he could converse. As an example of symbolic (pretend) play also within the symbolic-function substage, a different student offered the case when, at age 3, she had run around her family's home waving a kitchen spatula as her "magic wand." In relation to the intuitive-thought substage (4-7 years), yet another student correctly used centration (tendency to focus on only one aspect of a situation or problem) to justify her inability at age 5 to comprehend the conservation of liquids (i.e., four ounces of juice remains four ounces of juice, regardless of the size of the glass in which the juice has been poured).

Regarding concrete operations (7-12 years), *conservation*, *reversibility*, *seriation*, and *inductive logic* were, in that order, the four most frequently identified developmental concepts. Analysis of life narratives revealed that students had a consistently firm grasp of the first three of these conceptions. To illustrate conservation (understanding that an object's underlying properties remain unchanged despite alterations in outward appearance), a student used the example of realizing early into his elementary school years that slicing a hot dog into two large pieces is equivalent to cutting the same-size hot dog into four smaller slices. For reversibility (ability to reason through the steps of a problem, and then to go backward to the starting point), another student cited an instance when she first understood as a second grader that a reversible winter ski jacket was not two separate jackets, but instead the same jacket that could be turned over to one of two different sides. To convey his understanding of seriation (mentally arranging items in a series based on a quantifiable dimension), another student described a situation in which, as a third grader, his parents asked him to clean up his toy building blocks. In this situation, he wrote that he had carefully placed these objects back into a large metal container based on their relative size—moving progressively from smallest to largest. In contrast to students' overall facility in exemplifying conservation, reversibility and seriation, appreciably more errors were observed for inductive logic (mentally progressing from a specific experience to a general principle). In fact, several students mistook deductive logic (mentally applying a general principle to a specific conclusion) for inductive logic in their autobiographical narratives. For example, one student wrote that she had idolized her fifth-grade teacher and thus wanted to emulate her. She had reasoned that her teacher had earned a college degree to become an educator, as is also the case with all teachers; therefore, she would have to complete college if she wanted to become a teacher like her idol. Although correctly reasoned by this student, this example nonetheless reveals deductive as opposed to inductive logic.

For formal operations (12 years onward), a similar finding emerged as was observed with concrete operations insofar as distinguishing correctly between the types of reasoning common in this stage. In reviewing students' life narratives, a sizeable number of errors were found in their applied illustrations of deductive logic—the third-most-frequently cited developmental conception of this stage. Many of these errors involved mistaking this form of reasoning for inductive logic, which is first observed in the concrete operational stage. For instance, one student thought back to when she had entered a dingy-looking attic when she was 14 years old and soon began to sneeze, therein reasoning *deductively* (the correct developmental application should have been inductive reasoning) that she must be allergic to dust. Beyond the recurring difficulties found with correctly identifying examples of deductive logic, students showed sound understanding of the other three most-often mentioned developmental concepts: *hypothetical reasoning* (first), *imaginary audience* (second), and *metacognition* (fourth). One student illustrated hypothetical reasoning with her early-teenage tendency to ponder "what if" questions in searching for possible outcomes in her life. For imaginary audience, a different student used the example of roaming the halls of his middle and high school, obsessed with how he would look to his peers, and thus always having a comb handy in his back pocket to make sure that his hair was neatly in place. For metacognition, yet another student described her ongoing internal search for a preferred learning style as she attempted to be-

come increasingly aware of ways that worked best for her to learn and recall information as a high school student.

Table 2 depicts the data linked to the accompanying focus for each stage in Schaie and Willis' theory of adult cognitive development. On the whole, the content of students' life narratives revealed a sound understanding of the stages in this theoretical model (each stage shown here, as in Table 2, with its associated focus): Stage 1 (under 19): Acquisitive (Acquiring knowledge); Stage 2 (20-30): Achieving (Applying knowledge); Stage 3 (30-40): Responsible (Family); Stage 4 (40-50): Executive (Broader social outlook); Stage 5 (50-60): Reorganizational (Pre-retirement); Stage 6 (60-65): Reintegrative (Replacing paid work); and Stage 7 (65 onward): Legacy creating (Legacy for loved ones).

Table 2. Number of Correct and Incorrect Applications of Schaie and Willis' Stage Theory of Adult Cognitive Development.

Stage and its associated focus	Correct application (category code = 1)	Incorrect application (category code = 2)
Stage 1 (under 19): Acquisitive (Acquiring knowledge)	14	1
Stage 2 (20-30): Achieving (Applying knowledge)	25	1
Stage 3 (30-40): Responsible (Family)	33	5
Stage 4 (40-50): Executive (Broader social outlook)	31	4
Stage 5 (50-60): Reorganizational (Pre-retirement)	9	1
Stage 6 (60-65): Reintegrative (Replacing paid work)	7	0
Stage 7 (65+): Legacy creating (Legacy for loved ones)	18	0

As found in Table 2, exceptions to the overall pattern of students' demonstrated comprehension of Schaie and Willis' theory involve Stage 3: Responsible and Stage 4: Executive, both of which share an underlying other-directedness. Several students confused these stages in tagging a supporting developmental conception to their life-narrative descriptions. As one example, one student wrote that when she entered her mid-40s she would become increasingly interested in national and world politics and her place in a growing global community. This student tied this example to Stage 3: Responsible, when it would have been more accurately matched to Stage 4: Executive because her other-directed behavior is targeted toward a larger social perspective involving complex multi-level relationships rather than concerns for nurturing family relationships. To further present the findings relative to the stages in Schaie and Willis' theory (2000), three excerpts are offered that portray some of the more memorable accounts among students' life narratives and their corresponding correct developmental applications.

> *Excerpt 1*: As a 25-year-old small business owner, I have relied a lot on the information that I have learned while I have been enrolled in college. In my business classes, I have been taught how to market a product, handle day-to-day business operations, and manage cost accounting. Applying this knowledge to operating my own business has given me the opportunity to develop the entrepreneurial skills that I will need to continue to grow my company. [*Stage 2 (20-30): Achieving*]
>
> *Excerpt 2*: When I reach my mid-60s, I will actively restructure my life by shifting away from my job-related responsibilities. Although my career will have been gratifying in many ways, I will now be ready to move in the direction of activities that will add new and different layers of challenge and reward to my life. [*Stage 6 (60-65): Reintegrative*]
>
> *Excerpt 3*: In approaching the final years of my life, I will be interested in establishing a legacy for the members of my family. I will ask my oldest son, a professional journalist, to help me write a short story of my life filled with anecdotes, lessons learned, and photos that will live on in my absence. This will be my own unique way to tell future generations of my family who I was and what my life had to offer. [*Stage 7 (65 onward): Legacy creating*]

Table 3 presents the data connected to the principal psychosocial task within each stage of Erikson's life-span theory. With the exception of higher numbers of incorrect applications observed in the early-childhood through later-preschool years, students' autobiographical narratives exhibited evidence that they understood the developmental focus inherent in the stages of this theory: Stage 1 (birth-18 months): Trust versus mistrust; Stage 2 (18 months-3 years): Autonomy versus shame and doubt; Stage 3 (3-6 years): Initiative

Table 3. Number of Correct and Incorrect Applications of Erikson's Psychosocial Stage Theory.

Stage and its associated psychosocial task	Correct application (category code = 1)	Incorrect application (category code = 2)
Stage 1 (birth-18 months): Trust	39	1
Stage 2 (18 months-3 years): Autonomy	28	5
Stage 3 (3-6 years): Initiative	24	5
Stage 4 (6-12 years): Industry	27	2
Stage 5 (teen years): Identity	44	1
Stage 6 (20-40 years): Intimacy	40	2
Stage 7 (40-65 years): Generativity	42	1
State 8 (65 years+): Ego Integrity	32	1

versus guilt; Stage 4 (6-12 years): Industry versus inferiority; Stage 5 (teen years): Identity versus role confusion; Stage 6 (20-40 years): Intimacy versus Isolation; Stage 7 (40-65 years): Generativity versus Stagnation; and Stage 8 (65 onward): Ego Integrity versus Despair.

Returning to the occurrence of relatively more incorrect applications of Erikson's theory from 18 months through age 6, the primary successful outcome in early childhood (Stage 2: Autonomy versus shame and doubt) revolves around developing feelings of independence, whereas in later preschool (Stage 3: Initiative versus guilt) attention turns toward fostering a sense of purpose through active play. Several students confused these focal points in their life-narrative descriptions and corresponding developmental applications. As an illustration, one student wrote that, as a 3-year-old child, she went to the beach on a family vacation and spent time building a sandcastle. Once it was built, she then took a shovel and flattened it to the ground in front of her parents. When asked why she did this, she responded: "It's mine, so I can if I want to." However, she incorrectly assigned this demonstrative display of independence to Stage 3: Initiative rather than Stage 2: Autonomy. If, on the other hand, the life narrative had portrayed the child as carefully guarding her finished work to proudly show her parents, Stage 3: Initiative would have been the better choice. As undertaken similarly in representing the findings for stages in Schaie and Willis' theory (2000), three life-narrative excerpts are again submitted to show some of the more creative reports of correct developmental applications of stages in Erikson's theory.

> *Excerpt 1*: I am now 18 years old and spend considerable time searching for an answer to the question: "Who am I?" Although only a simple three-word question, it may be the most difficult for many people to answer in their entire lives. To arrive at a successful answer in my own mind, I must integrate into a comprehensive whole all of the social roles that I play in my life such as daughter, sister, best friend, significant other, college student, and part-time employee. Coming to terms with whom I am will lay the groundwork for me to enter the next stages of my life with confidence and maturity. (*Stage 5: Identity versus role Confusion*)

> *Excerpt 2*: I am presently a 45 year old who has just returned to college after over a quarter of a century. I started college the first time when I was 18 years old, but I was not emotionally ready to handle the academic and social challenges of college at that point in my life. I did not re-enroll in college the next semester. Instead, I entered the workforce, and within a span of the next five years I met my husband and we began a family together. Now that the last of my three children has grown up and left home to start adult lives, I have recently found myself growing more and more discontented with my own life. So, I decided to come back to college in midlife to pursue a nursing degree. My first semester back has been both scary and exciting as I try to adjust to the demands of college after so many years out of the loop. But in the long run, I know that I have made the right decision for myself because I am eager to earn my nursing degree and begin a rewarding career as a helping professional. (*Stage 7: Generativity versus despair*)

> *Excerpt 3*: If I am fortune enough to live into my 90s, I hope to look back on my life with pride and satisfaction. In weighing side-by-side a lifetime of both accomplishments and disappointments, I will do my best to adopt a positive stance on my life in total. In working through this reflective process, I hope to conclude that my life was largely worthwhile. If so, I will approach the inevitable end of my life with an inner peace. (*Stage 8: Ego Integrity versus despair*)

Conclusions and Recommendations

Viewed overall, the data from the present study support the conclusion that qualitative analysis of undergraduates' autobiographical narratives is a viable means for assessing content learning within the context of teaching principles of human development. These findings are consistent with earlier reports of the facilitating impact that student narratives of personal life experience have on the undergraduate learning experience (Haught et al., 2015, 2016; Mayo, 2001; Rothenberg, 1994; Thorne, 1995; Walls et al., 2001).

Although a life-span perspective was adopted in the current investigation, it is reasonable to assume that life-narrative assignments can also be applied successfully in undergraduate classes where individual periods of development constitute the curricular focus. These classes might include child psychology, adolescent psychology, and the psychology of adulthood. Moreover, life-story narration is not restricted to undergraduate psychology classes that adhere to a developmental framework. For instance, this technique has been shown to promote learning in the context of teaching introductory psychology (Mayo, 2003b), applied psychology (Mayo, 2004), and the psychology of adjustment (Mayo, 2003a).

It is also important to note that autobiographical narration is not the sole province of undergraduate coursework in psychology. To begin, this instructional approach is germane to teaching classes within humanities where students are asked to internalize the perspective of key characters or relate life experiences to significant events in both fictional and non-fictional works. For example, in teaching an undergraduate class in humanities and cultural studies, Ogunsanwo (2017) describes the use of first-person accounts to highlight the socio-historical and psychological significance of autobiographical narratives. Comparable applications of autobiographical narratives are conceivable in history, political science, business, nursing, education, and other college classes where students are asked to connect their background knowledge and personalized life experiences to the underlying principles and defining components of a case study involving a person, event, or problem to be solved (see Schneider, 2007, for the characteristic features and planning elements of case-based learning).

From a constructivist pedagogical stance, the core value of narrative-based instruction rests upon promoting "inner dialogue" between students and course content (Mayo, 2010). Students are encouraged to search within themselves for life stories and concomitant connections to course content that become both intellectually and personally meaningful. A beneficial offshoot of this internalized learning process is that students increasingly approach course material as a "creation of the human mind"' that informs learning

far more than "merely gathered up facts strewn about the universe" (Clinchy, 1995, p. 104).

Autobiographical narration also holds promise in interconnecting teaching and learning with assessment practice. In classroom environments, teaching and learning converge with assessing cognitive competencies when teaching applications sample contexts that are realistically connected to students' life experiences (Mayo, 2010). In the present study, the qualitative analysis of students' autobiographical narratives provides a springboard for assessing learners' abilities to both comprehend and apply course content with varying levels of sophistication. Therefore, as a versatile assessment tool, such an analysis can be used not only to afford a static assessment of conceptual systems at a given moment in time, but also to assess changes in dynamically evolving conceptions across time (Mayo, 2010).

In summation, content analysis of the qualitative data in the current study supports a call for increased use of autobiographical narration in undergraduate curricula within the overlapping areas of teaching, learning, and assessment. Accordingly, college educators should consider integrating into classroom practice students' narratives of their life experiences, despite the fact that some traditional-minded academics cling to the misguided assumption that "narratives are not real evidence and that one's personal experience is limited and biased" (Clinchy, 1995, p. 102). Theoretical and practical support for this view lies in the *theory of mediated learning experience* (Feuerstein & Feuerstein, 1991). Applying this theory to the present scenario, teachers should afford students opportunities to improve their learning through internalizing their personally constructed knowledge systems that are, at the same time, both subject to change and open to systematic assessment.

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