Dewey, Freire, & Kolb - Financial Education's Purpose: Financial Literacy for One's Lived World

Timothy Timura
American University

ABSTRACT

Traditional approaches to financial education – with curricula and strategies designed by a developer oftentimes disengaged from the lived-worlds of all the students - increasingly populate the literature. For example, characteristics of participant, venue, timing, and content are chronicled that when analysed, result in on-going disappointing behaviour. In light of the shortcomings of traditional curricula and strategies, strategically combining the seminal theories of John Dewey, Paulo Freire, and David Kolb, the purpose of this paper is to conceptually outline a lived-world, experiential approach to contemporary financial education, financial literacy, and their behavioural objectives. Because experiential learning has been successful in myriad other education settings, its application in financial education in pursuit of financial capability (i.e., education, literacy, and access) is proposed. Through the employment of educator roles, the paper seeks to refocus on the purpose of education specifically, to teach the student to learn and think.

Keywords: Lived World Financial Education, Financial Literacy, Financial Capability, Experiential Learning Theory, and Purpose of Education

INTRODUCTION

Over the years, a litany of financial education curricula and strategies in pursuit of financial literacy has been chronicled. By most measures however, the desired outcomes of these efforts have not met behavioral expectations. Learner behaviors, it appears, have not significantly changed. In an increasingly complex consumer finance and investment marketplace, unfortunately, the individual, household, or society has yet to materially benefit from all the time and money spent. (Ogden, 2019)

Perhaps a decided change to financial education in the pursuit of financial literacy and financial capability (i.e., the combination of literacy, access, and behavior) is necessary, one with a pronounced experiential learning focus on the lived-worlds of the participants. Borrowing the approximate framework from successful outcomes in other educational domains, this paper combines and leverages the experiential learning works of John Dewey (experiential learning and progressive education), Paulo Freire (critical pedagogy and praxis), and David Kolb (experiential learning theory and educator roles), each leading scholars, to restructure the prevailing traditional approach to financial education.

The author suggests an experiential, problem-posing, lived-world approach where the learner is more actively and more responsibly at the center of the discussion and where the educator possesses important time-varying roles. Holistic growth, open-ended questions, generative discussions, and multidisciplinary-oriented engagements combine to encourage the learner to form knowledge "by doing" from within their lived worlds and port it into their future lived worlds. Nonessential information, unrealistically advanced material, standardized testing, rote memorization, and passive, traditional "sage on the stage" approaches are minimized as the actively engaged learner is prepared by the educator with increased confidence and self-esteem to critically question, formulate possible solutions, and tackle challenging real world financial problems on the road to improved financial behavior.

The Problem – In Its Most Likely Current Form, Financial Education Simply Doesn't Work Well On Behaviors

Despite myriad curricula and strategies, financial education in the pursuit of financial literacy appears to not have worked as well as intended (Ogden, 2019). Some empirical papers examined demographic, socio-economic, personal, structural and cultural factors that may impact financial education and behavior while other papers focused on gender, education, income, household investments, financial knowledge, and financial attitude (Santini, Ladeira, Mette and Ponchio, 2019). Unfortunately, study after study of factor after factor has described how the behaviors of many different groups in the various categories – "kids, high-schoolers, adults, immigrants, lower-income households, provided in schools, libraries, bank branches, online and elsewhere" (Ogden, 2019) - have not materially changed after the myriad traditional financial education curricula and strategies. (Atkinson and Messy, 2012)

The disappointments have only intensified the resolve of policy makers (Ogden, 2019). For example, these failures have been met with more and more states requiring students to take financial education classes in the pursuit of financial literacy. According to the Council for Economic Education, 21 states now require a financial education course to graduate, up from 13 in 2011 (Council for Economic Education, 2021). However, according to the Washington Post's Thomas Ogden (2019), "the evidence shows that financial education simply doesn't work. It doesn't change behaviors." While financial knowledge may be incrementally impacted (e.g., as evidenced by before and after standardized tests results), the impact appears to systematically dissipate when behaviors are factored in. To this end, for example, just-in-time interventions are being suggested, albeit with measured impact. Fernandes Lynch, & Netemeyer (2014). Ogden (2019) points to a frequently quoted journal article - a financial education study of 168 papers covering 201 studies published in the Journal of Management Science (2014) - that found that financial education on average was responsible for only a 0.1% change in behaviors. (Fernandes, et al., 2014).

Toward Financial Capability … Financial Literacy Plus Access Plus Behaviors

Recognizing the need for behavioral change, the discussion of financial capability is developing in the literature (Goyal and Kumar, 2021). Broader in definition than financial literacy, financial capability includes a behavior and access measurement. To this end, Johnson and Sherraden (2007) contend more expansively that "Participation in economic life should maximize life chances and enable people to lead fulfilling lives; this requires knowledge and competences, ability to act on that knowledge and opportunity to act." Xia, Chen and Chen agree, suggesting that financial capability, the blend of financial literacy, access, and the execution of a desired financial behavior, should be orchestrated to bring about financial health and well being for individuals, households, and society alike (Huang, Nam, and Sherraden, 2013; Grohmann, Klühs, and Menkhoff, 2018).

Discussions and studies of financial capability reveal that it is important to provide the necessary learning opportunities – a roadmap of sorts - to address the four central components of financial capability. These components include: making ends meet; planning ahead; managing financial products; and financial knowledge and decision-making (Johnson et al., 2007) or per Hilbert et. al., cash flow management; credit management; savings; and investment.

What This Paper Advocates: A Differentiated Financial Learning Solution With Proven Characteristics That Address Capability In The Student's Lived World

It is into this discussion of a broader definition of financial education's aim that this paper emerges. In addition to its holist, problematizing, student centric, knowledge building, process oriented, active, etc. characteristics (please see Figure 1) and because of its success in other educational domains, a stylized form of experiential learning that integrates the educator may hold critical elements. (Kolb and Kolb, 2006; Prince and Felder, 2006; Slavich and Zimbardo, 2012; Sugarman, 1985) Borrowing heavily from the seminal works of John Dewey, Paulo Freire, and David Kolb, an alternative approach to financial education and capability – namely an educator role, experiential-based, financial literacy process situated in the student's lived- world - is proposed and tested.

Most importantly, the solution is different from other approaches because it forms new knowledge by doing (i.e., experiential education – from theory to practice) for future use as opposed to transferring knowledge (i.e., banking education – from practice to theory), much of which is quickly forgotten when not situated in the learner's lived world (Hawk and Shah, 2007). In addition, unlike in the recently popularized hybrid flipped-classroom for example, the educators are entrusted with varying their roles and enhanced tools and techniques as the learners rotate through the experiential learning cycle, all the while cognizant of the student's lived-world.

What This Paper Does Not Advocate

As the experiential learning strategies and curricula have systematically migrated into myriad educational settings, there is evidence that many of the recent iterations fundamentally deviate from the frameworks proposed by Dewey, Freire, and Kolb. For example, experiential learning is not simply about "the experience." In fact, Dewey suggests that, "the real process of education should be the process of learning to think through the application of real problems" Dewey (1938). In addition, Kolb advocates an integrated learner-educator approach that seeks to consciously rotate the student around the experiential learning curve by varying the educator roles – and in turn, the tools and techniques – employed. Simply being a facilitator (as in a flipped classroom) or an expert (in a traditional banking model), for example, is not enough (Freire, 1970; Kolb, 1984). Finally, few extensions of experiential learning have explicitly sought the situational setting of learning in the lived worlds of the students. For example, Freire, in particular, argued that a significant shortfall of learning is that the curricula are oftentimes dictated by irresistible impulses of the instructors and/or administrators and not by the lived-world needs of the student (Freire, 1970). For example, there will be little perceived importance to an flipped class financial education event centered on the tax advantages of a 401k or a 403b if the participant is struggling to pay monthly rent.

The Foundational Scholars

Paulo Freire, John Dewey, and David Kolb are leading scholars in the theory, practice, and benefits of experiential education. Beginning with Dewey, each builds upon and reinforces the others' recommendations. When several key elements are strategically combined and when situated in the student's lived worlds, Dewey, Freire, and Kolb's integrative works appear to provide a framework for lived world experiential financial education that leads to increased knowledge, enhanced behavior, and improved societal benefits in other venues. (Please see Appendix B)

Not Knowledge-Transfer But Lived World Knowledge-Creation For The Personal and Social Good

Paulo Freire (Pedagogy of the Oppressed, 1970) describes traditional education as the banking model of education. In Freire's banking model, the student is an empty vessel in which information is transferred from the instructor. The passive banking model has the characteristics of little interactions (i.e., the instructor takes center stage) and standardization where the student regurgitates "the right answer," oftentimes in arenas unfamiliar to unimportant to the learner. The student has little voice in this undemocratic, hierarchal world where society is taken as given and stagnate. In contrast to the banking model, Freire advocated a generative Critical Pedagogy that problematizes and conceptualizes each issue with open-ended questions, allowing the empowered students to dialogue and reflect on the issue and suggest change-making action, oftentimes for ready use in their lived world. His process is known as praxis and was importantly employed with individuals for personal and societal advancement, much like that of this paper.

Progressively Learning "By Doing" For Constructive Personal Development

John Dewey (Education and Experience, 1938) championed the idea that education works best when the student engages "in doing" (i.e., experiential learning) and not simply sitting back as a passive spectator. When engaged in active learning, students, building on what they already foundationally know, discuss and debate a relevant problem (via an experience) and grow new knowledge that is situated in their lived world. Upon reflection, this new experience based knowledge is real (or true) and allows it to be internalized and transformed into practice for the future. Minimizing memorization, standardized testing, and unnecessary trivia, Dewey also believed that simple experience itself is oftentimes not enough. As such, the learning event can best be guided by a teacher-partner who promotes the student's self-actuated knowledge creation and personal growth that which can be later recycled into another, more complex learning experience that has importance to that learner's real world.

Experiential Learning Cycle Goals Of The Learner And Educator

David Kolb (Experiential Learning: Experience as the Source of Learning and Development. 1984) originated Experiential Learning Theory whereby the learner is encouraged to rotate through the learning curve by experiencing, reflecting, thinking, and acting. The preferred manner in which the experience is grasped and transformed helps to discover the learner's learning style and throughout an experience, all are modes and styles are encouraged for the student's full cycle learning. It is the instructor, through time-varying educator roles, who aids the learner in this balanced process by rotating from facilitator, expert, evaluator, and coach. Active, problem-oriented, experience-based, process-oriented, student centric, recursive, and holistic, experiential learning theory allows the learner to emergently construct knowledge in the form of authentic, lived world learning for ready use.

The Framework

Much of the literature suggests that current financial education in the pursuit of financial literacy follows the traditional model where the student is viewed as an empty vessel receiving knowledge constructed by and transferred from a teacher (pass practice to theory). This is in stark contrast to the lived world, experiential model that Dewey, Freire, and Kolb recommends for learners who will create knowledge (theory to current practice) in partnership with an educator (please see Appendix B).

> It must be remembered that the purpose of education is not to fill the minds of students with facts... it is to teach them to think. Robert M Hutchins (1936)

The Experiential Learning Framework

Borrowing heavily from Dewey and Freire and specifically leveraging Kolb's experiential learning theory framework, the financial education instructor will seek to rotate the student around the experiential learning curve – experiencing, reflecting, thinking and acting – by changing the educator roles he or she employs. Instead of empty vessels to be filled with prior practice, the experiential-oriented learners will grasp and transform experience (i.e., from theory to practice); in short, to form generative knowledge "by doing" in his or her lived worlds (Kolb, 1984; Kolb, Kolb, Pasarelli, and Sharma, 2014)

With Kolb's experiential learning theory, the learning is "by experiencing" and the student is the center of the learning process. Problems are presented and solutions discussed in an attempt to build authentic knowledge and experience in the learner's lived world that can be ported to future situations.

Adopting the fundamental topical areas from the financial capability literature that will provide the foundational material to be problematized includes (Johnson et al., 2007):

- making ends meet;
- planning ahead;
- managing financial products;
- and financial knowledge and decision making

Alternatively, Hilgert, Hogarth, and Beverly (2003) have a similar set of topical areas.

- cash flow management
- credit management
- saving
- investment

The Experiential Learning Theory Role of the Student is to Actively Learn by Doing

The role of the student is to initially partner in the learning process with the instructor by taking on an increasingly active role in the event and by rotating around the learning cycle to experience, reflect, think and act. Because knowledge is formed via grasping and transforming experience, the student is encouraged to learn "by doing," forming theory into practice for future challenges. (Kolb, 1984; Kolb et al., 2014)

The Experiential Learning Theory Role of the Educator is to Encourage Knowledge Creation For Use In The Student's Lived-World

Beyond a holistic learning and development design for the student, and central to the recommendation of this paper, Kolb advocates an active experiential learning theory role construct that allows an instructor to become a more effective educator. (Kolb et al., 2014) The role of the instructor is to partner with and encourage the learner to cycle around the experiential learning curve to experience, reflect, think, and act by adopting the educator roles of facilitator, expert, evaluator, and coach (Kolb et al., 2014) and employing the concepts of schema, stories, intentional change theory, self-efficacy among others.

Dual Design Contrast

It is the intent of the author to broadly contrast the traditional and Dewey-Freire-Kolb experiential frameworks. Leveraging the curricula and strategy framework outlined in Appendix B, one financial education outline will be traditional while the other one will be experientially oriented. The topical areas from Hilgert et al., (2003) will be a major focus of the sessions.

With the instructor center stage, the traditional course subsection will have an instructor prescribed curriculum with a high proportion of power-point type lectures and worksheets. The assessments will be standardized (not open ended) and the primary intent is to translate the important conceptual practices into theories. User groups, themes, topics, etc. are all within the available universe.

With the experiential events however, the students are center stage and the sessions seek to problematize the same concepts that the traditional instructor teaches. The learning events will be discussions situated in the lived-world of the students with guidance from the educator who encourages the student to cycle around the learning curve and construct solutions to generative problems. Open-ended exams will aid the student to translate past practice into theory and provide pro-growth, pro-societal opportunities. (Please see Appendix B for additional details)

Dewey-Freire-Kolb Experiential Framework Outline For Financial Education: Step One

Begin the curriculum with discussion of definitions and application of cash management, credit management, savings, or investments.

Assume that cash management is the first area of focus.

This learning process begins with the active exploration of the students' lived-worlds and also establishes their foundational knowledge (and schema). Actively engaging the student as a facilitator, exploratory and experience discussions are encouraged with open-ended questions postulated and by executing (i.e., doing) progressively more complex cash management exercises, oftentimes with multidisciplinary tools. Generative themes are supported, encouraged and the student increasingly empowered as the center of learning.

Continue to encourage advanced discussion and personal reflection. As expert, engage the student with advanced information, perhaps using stories and posed-problems situated in the lived world of the students to explain the importance, application, etc. of cash management and its importance in broader personal growth instances. Students are encouraged to reflect on the new knowledge and experience as the expert makes an effort to successfully connect the foundational and new material into one. New theory is continuously transformed into practice that can be owned by the students.

With greater and greater knowledge and experience, the student is encouraged to think about the new knowledge and experience and form a quality lived-world cash management action plan. The evaluator provides real world examples aimed at the lived-world of the student and a new, potential social reality is birthed. Open-ended questions (via a process oriented, generative themes approach) are continuously employed with the students and their solutions to further cement the new knowledge and experience.

With the student having experienced, reflected, and thought about cash management practice, the educator, engaging the discussion as a coach, seeks to encourage the student with intentional change theory and self-efficacy tools. The student is reminded of how cash management can factor into the more financial literate student's ideal self (intentional change) and how the student was able to successfully learn the material for present and future portability. Students are also encouraged to seek to change their environments (for others) with their new knowledge and experience.

Having advanced through cash management, the educational learning spiral then migrates to credit management and the entire process begins again with Step Two: Credit Management.

Please note that nonessential, non-instrumental information (i.e., trivia); unrealistically advanced material; standardized testing; rote memorization; and the passive, "sage on the stage" approach are minimized.

Experiential Design Extensions - Financial Planning as Experiential Learning Events

Timura (2012) outlined an educator role oriented, experiential learning theory design for financial planners in pursuit of financial literacy for retirement. Importantly, while focused narrowly on retirement planning, the framework is nonetheless very similar to that recommended in this paper.

Because of the critical focus on the time varying educator role, it is the opinion of this author that this experiential approach can be developed and orchestrated with a one-on-one interaction with a retirement planning client or with a group of twenty-five high school students. In each instance, recognizing Kolb's Experiential Learning Spiral, the financial education curricula and topical arenas will emerge from the bottom-up knowledge, systematically growing in scope and complexity. The important takeaway is that the interaction is constructed as a experiential learning event (and not as a traditional banking approach knowledge transfer) where generative experiences are developed, robust discussions are encouraged, problematizing is orchestrated, solutions are actively debated, and in the end, knowledge is constructed for present and future lived world portability.

Throughout the learning event, the student or the client is encouraged to rotate through the experiential learning cycle with the encouragement of the educator or financial advisor who is altering his or her role for the particular individual, discussion, or challenge.

CONCLUSION

Financial education in pursuit of financial literacy appears to have failed in significantly altering learner behaviors. Unimpressively impacting individuals, households, and society alike, perhaps a lived world approach that employs a student centered experiential learning theory that accounts for existing schema, new knowledge connections through stories, generative experiences, and knowledge portability may be an improvement. Leveraging the seminal works of John Dewey, Paulo Freire, and David Kolb, all experiential learning scholars and practitioners, this paper outlines a financial capability oriented curriculum and an experiential learning strategy that seeks to conceptually address traditional financial education's heretofore capability shortcomings.

BIBLIOGRAPHY

Atkinson, A., & Messy, F. A. (2012). Measuring financial literacy: Results of the OECD/International Network on Financial Education (INFE) pilot study.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84(2),* 191-215.

Boyatzis, R. E., & Akrivou, K. (2006). The ideal self as the driver of intentional change. *Journal of Management Development, 25(1),* 624-642.

Bruner, J. (1966). *Toward a theory of instruction.* Belknap Press of Harvard University Press.

Buch, K., & Bartley, S. (2002). Learning style and training delivery mode preference. *Journal of Workplace Learning, 14(*1), 5-10.

Council for Economic Education (2021) https://www.councilforeconed.org/survey-of-the-states-2020/

Courchane, M., & Zorn, P. (2005). Consumer literacy and creditworthiness. *Proceedings, Federal Reserve Bank of Chicago*.

Dewey, J. (1938). *Experience and education.* New York, NY: MacMillan

Fernandes, Daniel & Lynch, John & Netemeyer, Richard. (2014). Financial Literacy, Financial Education, and Downstream Financial Behaviors. Management Science. 10.1287/mnsc.2013.1849.

Freire, P. (1970). *Pedagogy of the oppressed*.

Gagne, R. M., Yekovich C., & Yekovich, F. (1993). *The cognitive psychology of school learning.* New York, NY: Allyn & Bacon Publishing.

Goyal, K., & Kumar, S. (2021). Financial literacy: A systematic review and bibliometric analysis. *International Journal of Consumer Studies*, *45*(1), 80-105.

Grohmann, A., Klühs, T., & Menkhoff, L. (2018). Does financial literacy improve financial inclusion? Cross country evidence. *World Development*, *111*, 84-96.

Gurtney, K. (2005). *Closing the gap between knowledge and behavioral: Turning education into action.* NEFE Conference Proceedings, Denver, CO.

Hawk, T . F., & Shah, A. J. (2007). Using learning style instruments to enhance student learning. *Decision Sciences Journal of Innovative Education,* 5(1), 1-19.2012 No369 RCS2.pdf

Hilgert, M. A., Hogarth, J. M., & Beverly, S. G. (2003). Household financial management: The connection between knowledge and behavior. *Fed. Res. Bull.*, *89*, 309.

Huang, J., Nam, Y., & Sherraden, M.S., (2013) Financial knowledge and child development account policy: A test of financial capability. Journal of Consumer Affairs, 47(1), 1-26.

Hutchins, Robert. (1936) The College of the University of Chicago, Chicago, Illinois, Chicago University Press.

Johnson, E., & Sherraden, M. S. (2007). From financial literacy to financial capability smong youth. *J. Soc. & Soc. Welfare*, *34*, 119.

Johnson, E., & Sherraden, M.S. (2007) From financial literacy to financial capability among youth. The Journal of Sociology & Social Welfare, 34(3), 119.

Kolb, A . Y ., & Kolb, D. A . (2006). A review of multidisciplinary application of experiential learning theory in higher education. In R. Sims & S. Sims (Eds.), *Learning styles and learning: A key to meeting the accountability demands in education* (pp. 82-98). Hauppauge, NY: Nova Publishers.

Kolb, A. Y., Kolb, D. A., Passarelli, A. & Sharma, G. (2014). *On Becoming an Experiential Educator: The Educator Role Profile*. Simulation Gaming, 45: 204

Kolb, D. A. (1984). Experiential learning: Experience as the source of learning and development. Englewood Cliffs, N.J: Prentice-Hall.

Labianca, G., Gray, B., & Brass, D. J. (2000). A grounded model of organizational schema change during empowerment. *Organization Science, 11(2),* 235-257.

Lengnick-Hall, C. A., & Sanders, M. M. (1997). Designing effective learning systems for management education: Student roles, requisite variety, and practicing what we teach. *Academy of Management Journal, 40(6),*1334-1368.

Loviscek, A. L., Crowley, F. D., & Anderson, R. I. (2003). Problem-Based Learning in Finance: An Application to Portfolio Analysis. *Journal of Financial Education*, 85-103

Norman, G. R., & Schmidt, H. G. (1992). The psychological basis of problem-based learning: A review of the evidence. *Academic Medicine, 67(9),* 557-565.

O'Donnell A., & King, A. (1999) *Cognitive perspectives on peer learning*. Mahwah, NJ: Lawrence Erlbaum Associates.

Ogden, T (2019) More states are forcing students to study personal finance. It's a waste of time. Washington Post, April 23, 2019

Prince, M.J. and Felder, R.M. (2006) Inductive teaching and learning methods: Definitions, comparison and research bases. *Journal of Engineering Education*, 95, 123-138.

Santini, F. D. O., Ladeira, W. J., Mette, F. M. B., & Ponchio, M. C. (2019). The antecedents and consequences of financial literacy: a meta-analysis. *International Journal of Bank Marketing*.

Slavich, G. M. & Zimbardo, P. G. (2012) Transformational teaching: Theoretical underpinnings, basic principles, and cored methods. Educational Psychology Review, 24, 569-608.

Sugarman, L. (1985). Kolb's model of experiential learning: Touchstone for trainers, students, counselors, and client. *Journal of Counseling and Development,* 64(December), 264-268.

Taylor, S. E., & Crocker, J. (1981). Schematic bases of social information processing. In E. T . Higgins, C. P . Herman, & M. P . Zanna (Eds.), *Social cognition* (pp. 8 9 - 134). Hillsdale, NJ: Erlbaum Associates.

Timura, T. J. (2012). *An experiential learning theory study to enhance retirement literacy edu-cation delivery: Introducing the retirement learning cycle* (Unpublished doctoral disserta-tion). Graduate School of Education, University of Pennsylvania, Philadelphia

Van Berkel, H. J. M., & Schmidt, H. G. (2000). Motivation to commit oneself as a determinant of achievement in problem based learning. *Higher Education, 40(2),* 231-242.

Xia, J.J., Chen, C., & Chen, F. (2014) Consumer financial capability and financial satisfaction. Social Indictors Research, 118(1), 415-432.

Zimmerman, B. J. (2000). Self-efficacy: An essential motive to learn. *Contemporary educational psychology*, *25*(1), 82-91.

APPENDIX A:

Generalized Outline - Active Participation; Dialogue and Debate; Problematizing; Theory to Practice; Empowering Learning; Critical Thinking Encouraged; Knowledge Created; Process Oriented; Open-Ended Testing; Holistic; Lived World, and More

Each of the educator roles serves an important function during the student's rotation around the experiential learning cycle (Kolb et al., 2014).

The facilitator for example, employs schema tools and discussions to understand the multidisciplinary, foundational knowledge of the students (Labianca, Gray and Brass, 2000; Taylor and Crocker, 1981). Without an understanding of the depth and breadth of foundational knowledge within the lived world of the students, education can oftentimes take the form of a "one act magic show" (Hawk and Shah, 2007).

Connections of new knowledge to foundational knowledge are orchestrated via the expert role and through stories, analogies, and narratives. Collectively, these myriad forms of stories help to bring the connection of the new knowledge to the old by further engaging in a more advanced lived-world discussion (Loviscek, Crowley, and Anderson, 2003; Norman and Schmidt, 1992; O'Donnell and King, 1999; Van Berkel and Schmidt, 2000). Challenges oftentimes emerge (e.g., problematizing) that allow the new knowledge to be advanced into ready practice.

In the evaluation role, high quality solutions to the emerging challenges are researched, uncovered, discussed, and debated. It is here where the new knowledge should be applied in practice (e.g., from theory to practice). The student, in turn, owns the solution by constructing knowledge that can be ported into future situations in their lived worlds.

Finally, in the coaching role, the educator employs intentional change theory (ITC) and self-efficacy (SE) tools (Boyatzis and Alkrivou, 2006; Bandura, 1977; Zimmerman, 2000). ITC allows the student to see the benefit of the education in respect to the vision of their "ideal self" (for example, this knowledge and experience is important to my vision of my future). Self-efficacy, in turn, suggests that the student has successfully met the challenge of this problem and has gained the experience and knowledge to address the next new lived world challenge and the cycle begins anew. (Buch and Bartley, 2002; Gagne, Yekovich and Yekovich, 1993; Hawk and Shah, 2007; Kolb, 1984)

APPENDIX B:

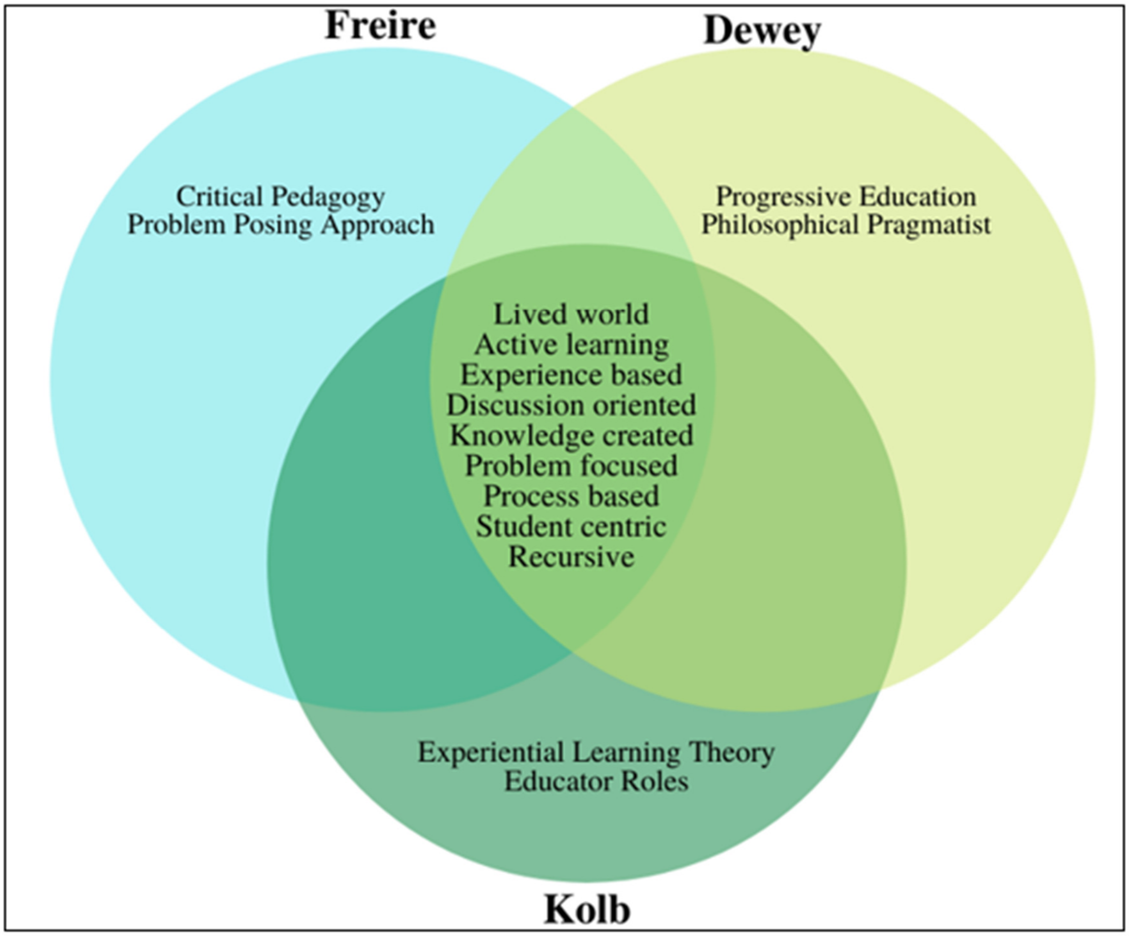

Figure 1: The Experiential Financial Education Model's Key Tenants

Traditional Model of FE	Dewey, Freire, and Kolb FE Model
Knowledge transfer	Knowledge creation
Learn by knowledge transfer	Learn by doing (experience)
Recall facts unnaturally	Knowledge created, theory formed, theory applied
Outcomes based	Process based
Instructor centered	Student centered and responsible
Little interaction	Discussion, debate encouraged
Standardized tests	Open-ended questions
Passive	Active
Environment, society stagnate	Environment, society dynamic
Present contrived issues (+ solutions)	Problematize issues
Oppresses critical thinking	Encourages critical thinking
Memorization	Reflection
Learning in abstract classroom	Learning takes place in lived world
Themes emerge in contrived curriculum	Generative themes emerge from learner
Teacher empowered	Student gradually empowered
Teacher is expert	Educator is Facilitator, Expert, etc.
Confidence, self esteem not a focal point	Confidence, self esteem enhanced
Classroom	Lived world, society
Not multidisciplinary focused	Multidisciplinary focus
Learning in the past	Learning in the present
Unnecessary knowledge not limited	Unnecessary knowledge limited
Not always real world applicable	Instrumentalism
Faith	Truth learned by knowing how it works
Practice into theory	Theory into practice

Table I: Traditional vs Experiential Financial Education