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Review article

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Agile Scrum Pedagogy: Leveraging Collaborative Corporate Practices to Enhance Engagement

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Abstract

Accountability legislation such as No Child Left Behind and Every Student Succeeds Act ushered in an era of right-answer based reforms. Teachers, students, parents as well as community and corporate leaders lament the legislation's negative impact on critical and creative thinking skills. Recent educational reform proposals focus on reversing the accountability trends. The change is propelling instructors at all levels to consider making contextually relevant pedagogical modifications. Business entities increasing resolve to adopt Agile Scrum principles offers educators an intriguing, authentic teamwork learning strategy. This article presents a business professor's journey from content-driven to Agile Scrum's context-embracing classroom instruction. Results from this action research affirm Agile Scrum principles that suggest engagement increases when instructors provide students flexibility, fast-paced opportunities to absorb content.

Keywords: Business Education, Collaboration; Engagement in Learning; Experiential Learning; Problem-Based Learning

Introduction

The start of a new school year brings anticipation and excitement. Teachers delight in the prospects of assisting young scholars in discovering a bigger world. Students celebrate the opportunity to spend time with friends and participate in extracurricular activities. Sadly, new school year happiness dissipates. Within a few weeks if not days the frustrating reality of conflicting teacher-student goals emerge. One shared tension within the teacher-student relationship is the "tell me what you want and make it as stress-free as possible" mentality.

Standardized, test-based education partially drives the shared tension. Those with a competitive predisposition embrace quantifiable data as a means of determining winners and losers. Reliable and valid multiple-choice questions sustain a perception of equality. Systemic, research-based, best-practice pedagogies evoke beliefs in the possibility of equity.

Dissonance hides beneath the mainstream, test-based rhetoric. Both teachers and educational scholars emphasize the standardized tests' tendency to narrow the curricula into a series of memorization activities. University admission personnel lament decreasing retention rates while university professors bemoan growing numbers of students who possess limited ability to engage in critical thinking. Corporate frustration spotlights new workers unprepared to navigate the dynamic, quickly changing realities of an ever-evolving technological era.

The Policy Research Center's annoyance with test-based accountability measures led to the development of the 21st Century Skills Curriculum Framework [1]. Central to the framework is an emphasis on knowledge in action. New pedagogical expectations include guiding collaborative student teams to use technological resources as they access needed but never-seen-before information, evaluate the trustworthiness of the gathered information, synthesize the assembled information with their own background knowledge, and finally use the emerging comprehension to accomplish authentic tasks.

Arising from the 21st Century Skills Curriculum Framework are the Common Core and STEM reform movements that embrace problem-based curricular designs. Larmer, postulates that problem-based curricula will nurture each student to be a "persistent critical thinker who knows how to learn…communicates well…is also open to possible failure at times, [and] can weigh sources for importance and credibility" [2]. Problem-based pedagogy also offers teachers mentoring opportunities that encourage value-beliefs and ethics-embedded dispositional growth. Unfortunately, ambiguous problem-solving outcomes can create stress for teachers and students who value test-based predictability. This article explores a practice that synthesizes the best ideas advocated by both 21st Century and test-based enthusiasts.

Review of the Literature

Rigor and Relevance *Framework* graphically differentiates the outcome goals embedded within 21st Century and test-based curriculum (see Figure 1) [3]. The "x" axis uses the traditional iteration of Bloom's taxonomy to plot cognitive complexity from "awareness" (simple memorization) to "evaluation" (discerning best options). The "y" axis references levels of content integration that range from "knowledge in a discipline" (solving geometric proofs) to "applying knowledge to the unpredictable real world" (designing a pedestrian bridge).

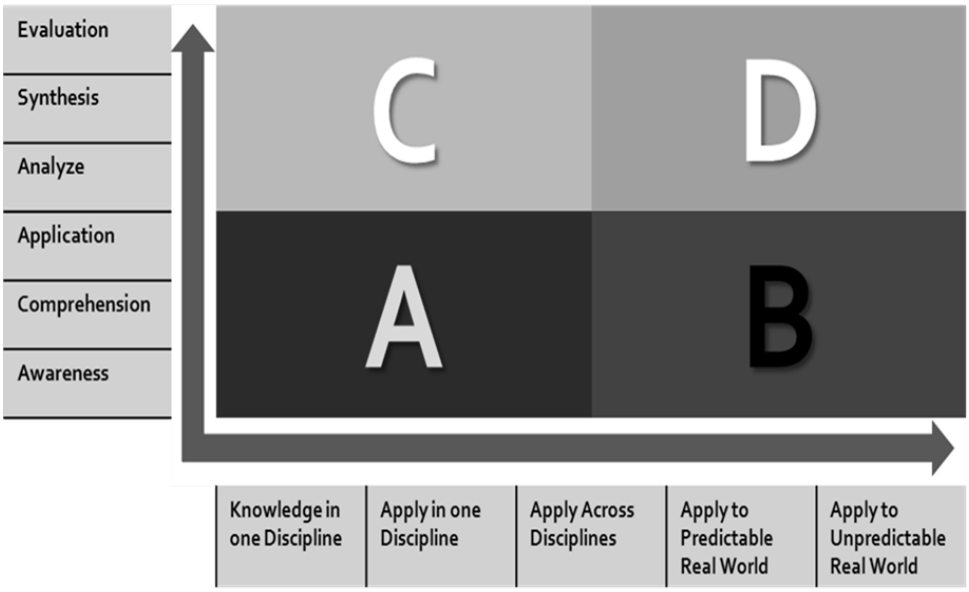

Figure 1: Dagget's Rigor and Relevance Matrix

Daggett then divides the graph into quadrants [3]. The goal is to blend lesson plans (points on the graph) with curricular ideology (quadrants). Quadrant A represents the traditional memorization-based learning most frequently found in schools. Quadrant C embodies subject-based critical thinking often embedded within U.S. Advance Placement courses. Common to quadrants A and C is a focus on imparting knowledge useful for answering standardized test questions.

Daggett confronts the tensions between right-answer tasks and 21st century adroitness with quadrants B and D, which he labels "Get to Work" competences [3]. Quadrant B provides learning opportunities consistent with entry-level jobs such as bookkeeper, data processor, retail manager, or welder. Quadrant D focuses on advancing the *creative* thinking, problem solving, and real-world applications embedded in professional settings such as genetic engineer, international economist, or software developer.

Daggett's (2012) Rigor and Relevance Framework challenges the perception that learning progresses from factual mastery through hypothetical exercises to realistic applications [3]. Replacing the liner view is a spiral, multidimensional, reiterate progression. Knowledge, Daggett argues, emerges as students collaboratively wrestle with authentic problems. Instruction focuses on nurturing and enhancing individual talents. Facilitated support assists students in connecting suitable solutions with relevant factual content and conceptual schema development. Faith in the advantages of metacognitive, skills-based proficiency ascends to the preferred student learning outcome.

Framework for Holistic Teaching/Learning

Shifting instructional to circuitous talent expansion involves connecting an individual's holistic developmental path with contextual forces. Sternberg, Jarvin, and Grugorenkio, suggest the approach begins with a commitment to honor each unique learner [4]. Four cognitive processing spheres guide the teacher-facilitator (see Figure 2). Arising within the academic sphere is mastery of the literacy and numeracy content embedded within traditional school subject matter. Surfacing within the *practical* sphere is engagement in environmental challenges that extend learning beyond classroom walls. Appearing within the *creative* sphere is a desire to explore alternative stratagems to typical, daily dynamics. Finally, materializing within the *wisdom* sphere is the inclination to apply *academic*, *practical*, and *creative* knowledge to discern apposite thoughts and actions.

Contextual undercurrents sway an individual's incentive to expand their four cognitive spheres. Hattie and Donoghue speculate that three interacting brain attributes influence motivation (see Figure 2) [5]. "*Skill*" connects academic agency with the aggregation of current conceptual and *practical* knowledge. *"Will"* unites intrinsic conviction with the perceived value and importance of investigating the unknown content. "*Thrill*" unifies persistence with enlightening discoveries.

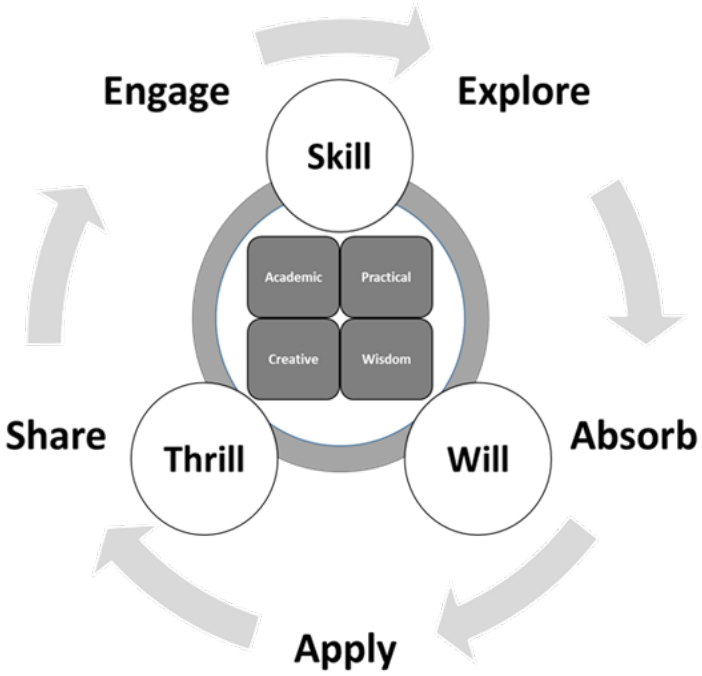

Figure 2: Framework for teaching/learning

The implication of a "*skill-will-thrill*" perspective is an awareness that instruction must link personal perceptions of past, present, and future with new learning activities. To illustrate, leveraging a middle school student's "*thrill*" to learn a video game can expand the acquisition of problem-solving "skills." Similarly, a high school student's *"will"* to make a wise career/college choice can reinforce the "*thrill*" found in completing homework with patience and perseverance. Finally, a university student's evolving professional dispositional "skills" can enrich purpose-driven "*skill-will-thrill*" metacognition.

Schwartz' hierarchical complexity framework operationalizes the helix path between "*skill-will-thrill*" inclinations and *academic-practical-creative-wisdom* development [6]. Using brain-growth-spurt biological evidence the model postulates that learning involves guiding an individual from simple awareness through cognitive representations into transferable abstractions. The supposition is that each new micro-level discovery eventually augments current macro-level proficiency. *Apply*ing the model to pedagogical practice compels instructors to employ inquiry-oriented activities that engage the topic, explore possibilities, *enmesh* new conceptual knowledge, *apply* original discoveries, and share emerging insights (see Figure 2).

Questioning initiates inquiry. Poor quality questions such as close-ended-right/wrong questions will stifle curiosity-based "*thrill*". Similarly, open-ended questions perceived irrelevant will suppress the intrinsic *"will"* to invest energy within the four cognitive spheres. Effective questions engage the learner and consist of explicit connections to the individual's background knowledge, interest-centered disequilibrium, self-efficacy competence, and contextual stipulations [7].

Individuals who explore a wide range of potential answers activate "*skill-will-thrill*" metacognition. Kohn recommends investigations include analyses of experts who espouse conflicting models as well as pivotal historical and contemporary incidents that have upset the status-quo [8]. Sekeres, Coiro, Castek, and Guzniczak propose the use of collaborative groups that reveal and appraise each member's unique proficiencies and comprehensions [9]. Adopting the explore stance makes assessment a holistic activity that includes information considerations, consequence deliberations, and final plan construction.

Thoughtful assessment protocols balance group outcomes with an instructor's need to verify individual mastery of academic knowledge and *practical* skills. Walsh and Sattes advocate for group norms that support personal contemplation, equitable participation, and consensus meditation [7]. The objective is to evaluate each member's competence to *enmesh* new learning that deepens current understandings (review Figure 1 quadrant D). Attaining productive, thought provoking norms requires continual revisions based on the evolutionary ebbs and flows of student and class contexts.

Instructors need to cautiously guard against the tendencies to associate new procedural knowledge with deep learning. Transferable or meaningful learning requires authentically nurturing the *creative* ability to *apply* conditional knowledge. Csikszentmihalyi separates creativity into a big "C" (original) and little "c" (novel) classification. The routine of asking "what if" questions will embed little "c" expectations into learning activities [10]. Sekeres, Coiro, Castek, and Guzniczak postulate that one notable outcome of questioning is the development of a theory-based, problem-solving, inquiry disposition [9].

The challenge with inquiry dispositions is managing the application continuum that ranges from pessimistic, disparaging judgment to proactive, constructive wisdom. Dialogic feedback permits discern-

ing reflections. The best communicative environments welcome teacher, student, and classmate input. Sekeres, Coiro, Castek, and Guzniczak advise participants to center discussions on process improvement within each participant's four cognitive spheres [9]. Kohn encourages adoption of societal enrichment as the criteria for success [8]. This other-centric view demands insights be widely shared to verify accuracy, relevancy, and feasibility.

Agile Scrum Pedagogy

Dewey's philosophy of democratic education advocates authentic problem-solving instruction [11]. A potential contemporary application of Dewey's vision is Agile Scrum pedagogy. Finding its roots in rugby, the Agile Scrum process pursues teaching/learning activities through shared experiences that focus on ascertaining common knowledge, discovering potential problem-resolutions, and discerning the worthiest solution to implement. The essence of the Agile Scrum process is empiricism i.e., an iterative, incremental approach to optimize the predictability of achieving a desired outcome by managing conceivable risks [12].

Agile Scrum pedagogy stresses an instructor's responsibility to conceptualize macro-, mezzo-, and micro-outcomes (see Figure 3). The macro level, epoch, uses "*thrill*" principles to match a student's long-term goals with those of a professional academic program. The mezzo level, epic, synthesizes course outcomes with the academic program's vision as well as the approved scope and sequence. Within the epic level, teachers assume control of verifying the relationship between curriculum aspects such as syllabus construction, class-session instructional plans, and assessments within the four cognitive spheres (academic, *practical*, *creative*, wisdom). The micro level, sprints, comprise of teacher-student negotiations that merges epoch and epic goals with immediate student needs.

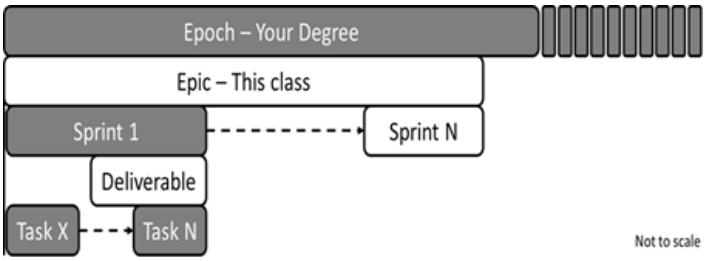

Figure 3: Conceptualizing course outcomes

Shirts' descriptions of simulation pedagogy include a few likenesses with the Agile Scrum's sprint activities [13]. Both focus on providing a carefully designed learning experience that imitates reality, incorporates replication of professional skills, requires participants to assume responsibility for actions, and includes performance assessments. However, implementation strategies are distinct. Simulations are well-defined, time-certain activities where learners fully immerse themselves in the experience. Conversely, a sprint is a series of brief, problem-based tasks that assist learners in amalgamating authentic applications with course content. Collectively sprints nurture a growth mindset that views unstable or discontinuous environments as opportunities to challenge status-quo contemplation.

Five design elements guide an instructor's development of the Agile Scrum sprint sequence. The first element initiates the formation of collaborative norms. Facilitated support guides teams as they negotiate an analysis of preferred team dynamics, potential threats to harmony, and opportunities for evolvement. Instructors proactively encourage teams to resolve incongruities and conflicts as professionals. Arneson links professionalism to communication standards that focus on listening at least as much as speaking, managing awareness of body language, providing feedback that invites dialogue, asking open-ended questions that allow future learning and cultivating trustful relationships [14]. Accordingly, successful norms materialize when everyone understands and is accountable for his or her responsibilities.

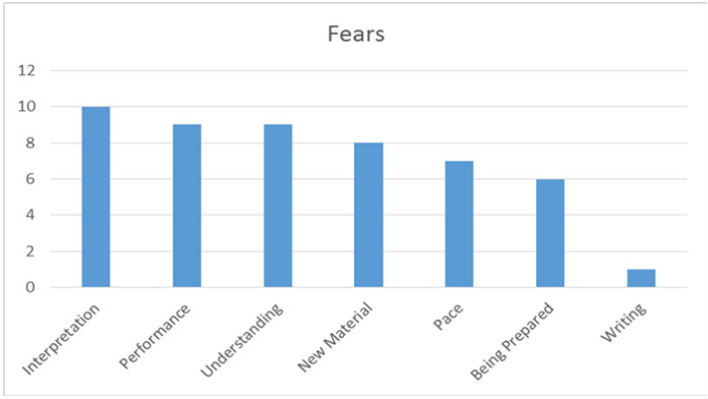

Figure 4: Sample of pre-course poll results

The second design element illuminates team expectations. Clear guidelines convey the course's stable, malleable, and self-determinable learning opportunities. The goal is to foster social and emotional development. *The Collaborative for Academic Social and Emotional Learning*, Boyles identifies five social-emotional foci [15]. The first two, self-awareness and self-management, target individual growth. Self-awareness reflections nudge participants to identify, evaluate, and control their conscious and unconscious emotions. Instructors assist learners within the *academic, practical, creative, or wisdom* cognitive spheres. Exercises such as a pre-course poll (see figure 4) help establish "engagement" priorities. Similarly, instructors can promote self-management accomplishments by providing explicit statements for learning outcomes, assignment submission rules, and grading criteria. Making expectations transparent creates a safety net that allows each student the opportunity to employ positive goal setting, organizing, self-disciplining, and stress-managing mindsets.

Boyles' (2018) last three foci nurture team cohesiveness [15]. Social-awareness proficiencies such as valuing diversity and *apply*ing empathy raises collegiality amongst team members. Reverential perceptions become the foundation upon which an equitable use of individual strengths emerge. Relationship-skills transfer other-centric sensitivities into positive team-building engagement. Awareness of the capacity to shape the learning environment pushes each member to constantly evaluate and improve interpersonal propensities. Finally, commitment to responsible-decision-making enhances the ability to *apply* ethical standards to all individual/group activities. The aim is to synthesize the team's collective values with each aspect of a problem-solving project so that a common understanding of learning opportunities materializes. The long-term result of dynamic social and emotional care is an understanding of the relationship between collaborative interactions, an individual's *"will"* aptitudes and the mitigating fears of uncertainty.

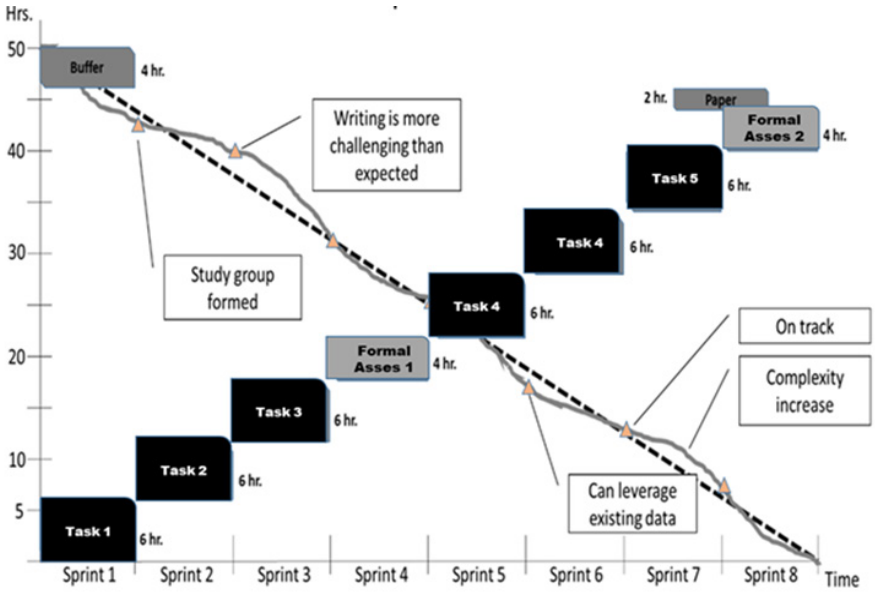

Figure 5: Monitoring "skill" progress using Agile Scrum Sprints

The third design element verifies team and individual outcomes. Building on the work of Tyler this element uses the pre-course poll (see Figure 4) to devise a plan that will close the gap between the learners' background knowledge and course objectives (see Figure 5) [16]. Merging content knowledge (e.g., leveraging sales data) with academic abilities (e.g., writing reports) permits instituting a needs-based "exploration" sequence. Each sprint includes tasks that reinforce and support "enmeshing." Providing learners, a transparent timeline allows participants to budget time for preparation, participation, and reflection activities. Intentional instructor efforts ensure each learner understands the progression. Collectively, the sprints become an iterative process that achieves course goals. A final, comprehensive, authentic assignment such as a White Paper verifies the extent to which the learners can "*apply*" their new knowledge.

Integrating Billings and Roberts' Socratic dialog protocols into each sprint proactively encourages collaboration [17]. The approach starts with the creation of open-ended questions that are relevant and meaningful. Insisting that teams secure, consider and reference robust content resources allows student voice to permeate the sprint activity. Systematic instructor-team interactions mitigate off-task conversations, reassures reluctant/stressed participants, confirms team consideration of contrarian perspectives, and monitors individual "enmeshing" of scholarly "skill-based" knowledge.

The fourth design element evaluates team and participant learning. Crichton and McDaid advocate tapping into two student-focused principles [18]. The first, learning intentions, changes the instructor's consideration from what students are doing to what students are learning. The second, success criteria, pushes participants to move from retrospectively judging the quality of produced work to looking ahead towards areas needful of "skill" improvement. Implementing both principles, in part, involves continuous, targeted feedback. Leveraging the sprint stair-step structure (see Figure 5) promotes opportunities for expansive instructor input. Feedback further verifies that links amongst course concepts and the "academic-*practical*-creative-wisdom" artifacts remain transparent.

Feedback conventions improve when sprint deliverables concisely bring together a discernable learning outcome and participant reflective insights. Clearly established expectations assist student groups in uncovering and articulating areas of confusion as well as time management anxieties. Careful review of student/teamwork enables the instructor to identify outcomes requiring additional support through the disaggregation of collective and unique performance data. Uncovering gaps permits remediation and modifications to upcoming sprints. The result is "skill" level instruction that is at the right level and that supports *"will"* development through an emphasis on increasing levels of proficiency.

The final design element nurtures participant self-efficacy. The objective is to transfer epic-based understandings to future epoch obligations (see Figure 3). Hagger and Hamilton provide a viable approach [19]. Their process urges instructors to highlight the underlying elements that support "*thrill*" based metacognition. Focus is on encouraging self-regulation contemplations that detects and mitigates negative behaviors. Conscious efforts to deploy *"will"* temperaments allow individuals to manage potential distractions and invest the extra out-of-class time needed to master class/sprint-based "skills." Grit deliberations inject a level of persistence that proactively regulates frustration and disappointment. Differentiating grit interests, what I want to do, with grit-effort, what I will do, is critical. Properly applied, grit effort promotes the long-term, systematic progression mindset that systematically propels learners from the present into career dream realization.

Agile Scrum Pedagogy: A Field-Test Illustration

The adoption of agile scrum pedagogy will require overcoming implementation challenges. Middle and high school teachers will need to navigate the tensions between ambiguous problem-solving activities and the reductionist forces within state content standards. University professors will need to traverse the residual impact of

No Child Left Behind and Every Student Succeeds Act standardization that encourages student fixation on grades along with assumptions that right answers are equivalent to mastery. Finally, teachers in all levels will need to mitigate the popular view that well-designed instruction both minimizes cognitive dissidence and dichotomizes 'skill-will' with academia and 'thrill' with life after graduation.

Sousa's cognitive development construct asserts a significant, positive association between meaning, relevance, and long-term learning. Sousa suggests that pedagogical decisions should consider the relationship between a setting's context and the strategy's core tenets. One such context is the ongoing technological advancements such as expanding artificial intelligence viability. Realizing that some corporate entities are responding with the use of short-term, agile teams reinforces creating learning opportunities that provide students opportunities to experience involvement in a scrum team [20]. Given this current context, the first author's Master of Business Administration (MBA) entrepreneurship-focused classes became a natural setting for field-testing agile scrum pedagogy.

Employing Teamwork Practices – Elements One and Two

Course syllabi and opening night orientation activities established student responsible for securing membership in a diverse-skill group. Appraisals of the corporate realm affirm the importance of developing teamwork proficiencies. The mixture of students within the entrepreneurial programs allows the professor to leverage contemporary realties. The result yield teams that often include recent bachelor graduates, mid-level corporate employees, and technical-skill professionals such as mechanical engineers. The instructor allows the newly formed groups to organically establish norms related to task allocation, contribution quality validation, and artifact submissions.

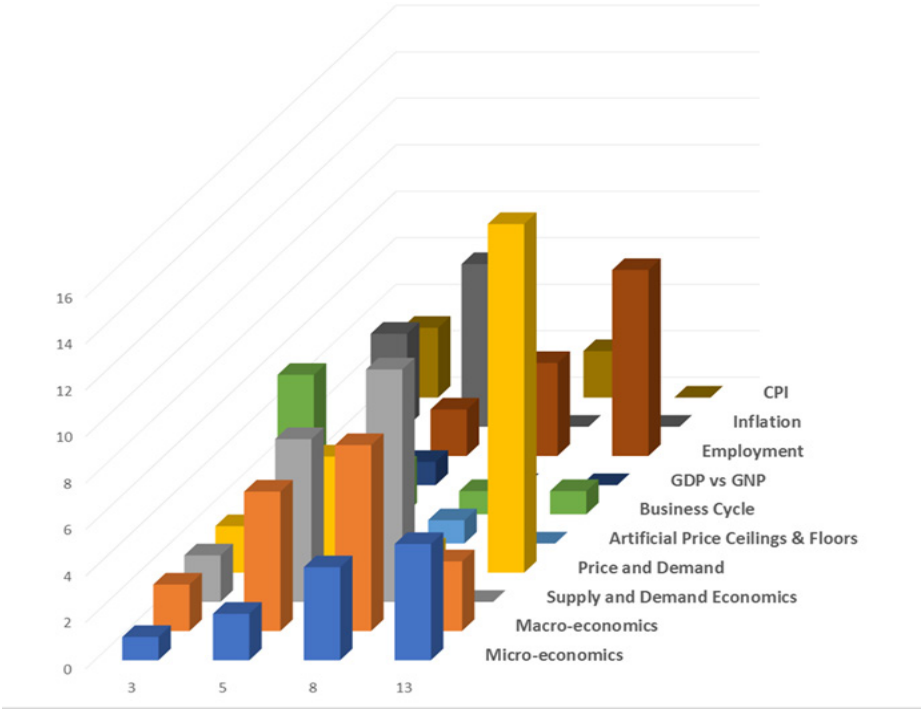

Figure 6: Student reported confidence in micro-level background knowledge

Professorial assistance arises through a series of surveys that reveal student interests and/or perceptions of competence. The macro level survey draws attention to epoch subjects such as finance, marketing, and systems management. The mezzo level survey highlights course units such as conducting a market needs analysis, preparing an investment prospectus, and honoring employment law. Repeated micro-level surveys verify confidence in mastery of unit-relevant concepts such as inflation, supply forces, and business cycles. Survey analysis within all three levels use the Fibonacci sequence. The process involves students selecting four items from a list and then ranking each item using the values of 3 (low), 5 (mid-low), 8 (mid-high), and 13 (high). The last step in the process was the construction of a 3-D chart that magnified variance (see Figure 6).

Sharing the Fibonacci chart with the class allows each group to verify their collective interests and/or expertise. Knowledge of each member's affinities also encourages teams to assign responsibilities based on an individual's strengths. Group empowerment permits the instructor to instigate quick coaching sessions to close identified knowledge base gaps and/or overcome instances where a collective lack of interest/motivation is materializing. Class mini lessons addressed challenges shared by most groups. As a result, productive class time gradually increases as instruction became less didactic and more responsive to learner needs.

Embedding Critical Course Content – Elements Three and Four

The pre-semester development of the Agile Scrum Sprint sequence ensures that each sprint systematically moves groups towards the completion of a financial prospectus for a new company. An example of a typical sprint task is the Interactive Levers of Finance worksheet (see Figure 7). This assignment required groups to evaluate a balance sheet that provides a corporation's cash, retained earnings, and income status. Each shaded cell included formulas and relational aspects groups manipulate. Facilitated tasks direct

team through a series of dialogs that moves from clarification through group-directed research discoveries to consensus-based solutions. After each sprint, a decision and rationale presentation allow verification of learning. Knowledge gleaned eventually finds its way into the group's final semester product.

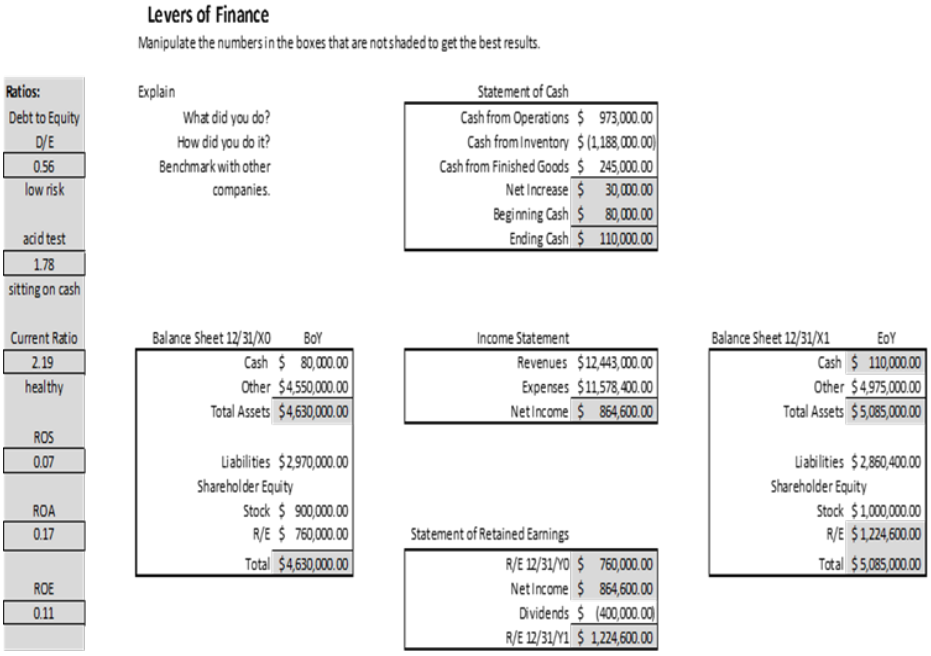

Figure 7: Scrum activity illustration: interactive statements exercise

Requiring groups to develop and examine multiple hypotheses stimulates inquiry by mitigating the desires to accept the first viable solution for a shaded cell (see Figure 7). Groups discover that an acceptable hypothesis synthesizes theories, values, convictions, and ambitions into a unique perspective. Once the group creates multiple, acceptable hypotheses, the group uses a prioritization process to rank each postulation. Outcome comparisons support impartial evaluations. The progression pushes each group to scrutinize their data feedback loop thought processes ultimately increasing final strategy confidence. Once again reactive monitoring alerts the instructor to areas needing remediation and/or re-direction. Finally, class presentations that include rationales transforms evaluations into a collective pursuit.

Reviewing the three-year field-test test shows that assignment rubrics remained consistent making the increase in average course grades noteworthy. It is also worth pointing out that anonymous student course evaluations rated the course as being equal-to or more rigorous than similar university course (range from 91% to 94% - see Table 1). Additionally, student evaluations noted a substantive improvement in the professor's ability to manage in and out-of-class learning activities (increase from 88% to 97% - see Table 1). The positive correlation between rigor and course satisfaction suggests students were pleased with the way Agile Scrum pedagogy assisted the professor in attaining the course objectives.

Calendar Year	# of Classes Taught Using Agile Scrum Pedagogy	% Ranked Course Rigor Easier than Like Courses	% Ranked Course Rigor Equivalent to Like Course	% Ranked Course Rigor Harder than Like Course	% Students who Awarded a "Strongly Agree" or "Agree" Ranking on all Course Evaluation Items
2016	4	9	65	26	88
2017	7	8	76	17	96
2018	10	6	63	31	97
Total/Average	**21**	**8**	**67**	**25**	**95**

Table 1. Student perceptions of course.

The field test also appears to affirm Goodwin, Gibson, Lewis, and Rouleau premise that adopting new instructional strategies requires patience. This position rests on the importance of teachers tempering yearnings for immediate results with a commitment to examine and address the vast complexities embedded within learning environments [21]. Consequently, teachers who lever-

age reflection will increase the probability of finding success in designing learner-focused experiences that actively engages each participant in learning.

Encouraging Resiliency – Element Five

Finally, the three-year field test, demonstrated the benefits of requiring purposeful, metacognitive reflection after each sprint (see Figure 5). Instructor provided prompts guided participants to uncover perceptions of individual and collective grit. Questions blended content synopses (financial analyses, risk assessment, time/self-management appraisals), decision rationales (indications of product creativity, verification of profit optimization verification, evidence of progressive improvement) and personal assessments of unique ability contributions. Inclusion of reflective findings during class presentations allowed other teams to provide feedback and moderated over/under-estimations. Comments noted that the increased awareness and value of diversity played an active role in shaping a supportive and positive classroom environment.

Reflection criteria shifts the learning lens from verification of an individual's involvement in the lesson activity to a fixation on engagement in learning. Consistent with Hoerr's work, the three-year field test corroborates engagement in learning as a constructivist process that focuses on providing learners dynamic, multifaceted, contemporary society experiences [22]. Content mastery expands to include collaborative verification of the learner's ability to *apply* self-control strategies that mitigate self-interest and delay the desire for instant gratification. Purposeful metacognitive reflections can also help participants uncover tacit motivators while simultaneously seeking to unite traditional learning outcomes with professional dispositions.

Hoerr recommends synthesizing metacognitive reflections with grit theory principles [22]. The process begins with the development of complex, authentic tasks that offer participants freedom to unpack individual/collective expectations within the confines of teacher-established non-negotiable outcomes. Each task includes space for individuals to share discovery insights during small group/class dialogs. Vigilant enactment of collective accountability norms systematically replaces failure preoccupation with growth-oriented, mindfulness vocabulary. Methodical tracking the employment of risk management and persistence strategies spotlight problem-solving resiliency skills. Slowly views of success move beyond simple evaluations of the final product to one that includes all elements of the learning experience.

Conclusion

The agile scrum pedagogical model's three-year field test suggests the approach increased *"will"* and "thrill." Evidence for *"will"* growth emerged when learners wrestled with real-world tasks that demanded participants merge conceptual and *practical* understandings. Equally important was the synergetic energy that materialized as groups used formative feedback as a venue for determining next steps such as reconceptualizing the problem, exploring additional alternative solutions, and, when necessary, used new team formation to disrupt static thinking. Support for increases in "thrill" perceptions appeared as learners discovered effective strategies to leverage individual strengths within collaborative venues. The outcome of intentionally applying *"will"* and "thrill" principles seemed to be a shift from traditional individualistic grade-oriented behaviors to goal-oriented thinking.

While the use of real-world simulations is not a new idea, the agile scrum sprint iteration is unique. Specifically, sprint pedagogy flows through an entire course. Each lesson includes at least one learning activity that intentionally and explicitly integrates theoretical principles, conceptual understandings, and complex pragmatic knowledge. As a collective, the lesson activities become a cycle that systematically pushes learners to examine the almost limitless possibilities associated with expanding 'what' thinking into 'why' and 'how' contemplations. Resilience and grit materialize as participants normalize learning as a spiral of ever-expanding complexity.

Recent influences of COVID 19 further support the use of agile scrum pedagogy. Specifically, flipping classroom instruction to asynchronous lectures and synchronous, on-line Agile Scrum group interactions creates an emphasis on maintaining interpersonal interactions. The format also reinforces skills associated with remote employment opportunities. It is the link to future job skills that will guide those who are considering transferring the approach into their own classroom setting. Examples might include creating/opening a not-for-profit agency, designing/launching a web-based retail enterprise, or critiquing/unveiling a contemporary social justice public service campaign. To summarize, implementing Agile Scrum sprint pedagogy allows instructors to move instruction from the current test-based fixation to a Deweyan (1916) drive to humanize students throughout the learning process. In a world of division and uncertainty, using pedagogy that humanizes the learner should not be a dream but rather a daily pursuit.

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