Learning to Learn: A Student Centered Instructional Strategy

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Abstract

Learning to learn should be a continual process of change. Learning skills are developed through conditioning in the learner's environment and their experiences in social environments. Students over time become dependent on their beliefs influencing decisions for how to engage with learning. Educator instructional strategy plays a significant role in conditioning student's beliefs. This discussion involves perceptions and propositions supported by brain based learning theories providing insight for empowering teachers to strengthen student learning skills through instructional strategies.

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Traditional classroom instructional strategy is characteristic of presenting knowledge to learners through lecture, video, and other forms of presentation. Instructional strategy that depends solely on the academic expert's knowledge and the ability to present that knowledge conditions the classroom to revolve around the subject matter expert. The customary understanding is that the student's perception must closely match the expert's perception assessed through testing. Students that do not demonstrate less than desired results from test taking may be considered as ineffective learners. This instructional strategy is referred to as the sage on the stage. The instructor is the center of the classroom instructional strategy. According to King (1993),

> The sage on the stage instructional approach involves the one who has the knowledge and transmits that knowledge to the students, who simply memorize the information and later reproduce it on an exam--often without even thinking about it. This model of the teaching-learning process, called the transmittal model, assumes that the student's brain is like an empty container into which the professor pours knowledge. (p. 1)

An assessment such as testing to provide a grade is an extrinsic motivation. Students become conditioned to measure their success of the learning experience through the grading process. Students must meet or exceed grading standards with very little regard for awareness of their learning skill process. The accuracy of content is targeted instead of the learning process of content application. How the student will use this knowledge in their reality may not be a consideration of the instructional strategy.

If formative feedback is not discussed or provided, students may not focus on the learning process and instead students may become dependent on external rewards. Extrinsic

rewards may motivate a learner in the moment, but do not provide a means where instructional strategy attends to strengthening learning skills and habits over time. External rewards satisfy instant gratification and may reinforce dissatisfaction with the instructional strategy. Schaps and Lewis (n.d.) stated, “Extrinsic rewards are not needed to stimulate student engagement and perseverance. Rather, we find that rewards may indeed undermine intrinsic motivation” (p. 81).

Standardized summative testing involves the recall of knowledge for accuracy. The summative testing involves the lowest level of Blooms Taxonomy of knowledge recall and may not connect with higher order thinking skills of analysis, synthesis, evaluation, comprehension, and application. In addition, standardized testing produces data predominately used in ranking percentiles with an expectation of learning. Data produced by testing is used by educational institutions as a means of assessing effective teaching and curriculum evaluation. A demonstrated use of the subject matter may not be involved. Therefore, the actual use of functional higher order learning outcomes included in Bloom’s Taxonomy may not be assessed to determine actual learning accomplished. Students subjected to passive instructional strategy may not be challenged to demonstrate practical application of course content.

Sage on the stage instructors may not involve motivating a student to strengthen learning skills and habits. Over the years using the term learning style has influenced teachers to accommodate the student’s strength of modality. The term often is used to describe how the student learns. The term does not pertain to learning skills but instead motivates teachers to accommodate the student’s preferred modality strength. Every learner uses the same learning skills influenced by their strength of modality.

Pashler, McDaniel, Rohrer, and Bjork, (2009) completed research on the term learning styles and posit “We conclude therefore, that at present, there is no adequate evidence base to

justify incorporating learning styles assessments into general educational practice" (p. 105). The term learning styles is used to define an individual's preferred habit. Marshik (2015) reflects in a TEDX present that the accommodating auditory, kinesthetic, or visual modality does not benefit learning processes. Research completed reflects that reaching learning outcomes is not benefited by accommodating the strength of modality. Instead, learners may become conditioned to believe that is how they learn. Students can become inclined to depend on the strength of their learning style and avoid improving all their learning skills.

Furthermore Oxenham (2017) stated:

> Labeling yourself as a (specific type of) learner or labeling a student as a learner can not only be misleading, but it can be dangerous. If I as a teacher think that you have a particular learning style and that you only learn in one way that might prevent me from trying other strategies that could otherwise help you learn the information better. Likewise, if you as a student believe that you have a particular learning style that could cause you to shut down or lose interest when a teacher isn't teaching in a way that is consistent with your preferred style. That might actually perpetuate your failure but it's not because you couldn't learn that way; it's because you gave up and you stopped trying. This whole idea that learning styles don't exist in many ways should be further good news. It means all of us are capable of learning in a variety of ways. We are not as limited as sometimes we think we are (p. 2).

The guide on the side approach involves facilitation through guiding the learner to become aware of all their learning skills. Student centered learning interaction should be the target of instructional strategy (King, 1993). By targeting student's learning skills, teachers motivate the student's awareness of their learning skills. The student's process for how they

reach results is more important versus correction. Students should be stimulated through active learning. Students should be invited to become partners in the instructional practice rather than the recipient of the instructional practice. The student should be considered the product of the education instructional strategy and not a customer of the subject matter expert. Instructors should be guides interacting with suggestions and questions to stimulate student awareness for how they learn. Students should be encouraged to plan their learning process through developing their effectiveness with continuous improvement of learning skills. Students can be empowered to take accountability of their learning process through understanding their specific strengths and how to approach the areas that are challenging for them (Keeton, Sheckley, & Griggs, 2002). Understanding how to schedule learning time, strengthen comprehension in reading, streamline scholarly written communication, reinforce critical thinking, develop self-regulation, and build practical active listening can be student centered skills which the instructor can guide the student to strengthen. In addition, the instructor that guides the student to understand why this is important empowers the student toward continuous improvement of lifelong learning skills. Good instructors understand and guide effective self-regulation processes providing examples for students to emulate.

Formative Assessment and Feedback

Formative feedback is one of the most important aspects of education in terms of supporting students in the most appropriate way that will allow them to make the maximum amount of progress and gain the maximum amount of knowledge. Using formative feedback in dialogue as well as the assessment of authentic deliverables should not just give the students the correct process, but guide their ability to create a process that will bring forth the desired and appropriate outcome in a way that makes the most sense to them. The instructor that guides does

this by asking students guiding questions that provoke critical thinking about certain aspects of their processes for reaching a solution. Students already intrinsically motivated use feedback to change/improve their process. Are students able to ask questions about their own work to possibly find ways to make provisions, or do they rely on me as their instructor to provide these feedbacks? Savickiene (2010) had the right idea with the belief that formative assessment and feedback should be used in order to guide the student to a culture of self-assessment. If this can be accomplished, then the feedback has successfully aided in the creation of intrinsic motivation towards learning. Stiggins (1999) stated, "Wise teachers use the classroom assessment process as an instructional intervention to teach the lesson that failure is acceptable at first, but that it cannot continue. Improvement must follow" (p. 196). Learning experiences must motivate a student to improve the learning process and just target the result.

The student managed portfolio is excellent formative feedback process. Setting up portfolio guided step templates to discuss with the student reduces instructor administrative time while providing the student with a responsible approach towards review of learning progress. The instructor should never take full responsibility for a portfolio process. The portfolio process is written and a copy of the steps is provided to each student. The student and the instructor discuss the process and then students are responsible to manage portfolio contents turning the portfolio in for assessment as work is completed. The teacher then uses the portfolio as a guide to assess work and progress and then return the portfolio to the student for the next deliverable. When the portfolio is electronic, the amount of time instructors need to assess and track is evens less. The benefits of the process outweigh the time commitment. The process is student centered and not instructor centered. Establishing an effective concise portfolio process managed by the

student empowers the student's approach for self-regulation and reduces the instructor's time for assessment.

Locus of Control and Learning Skills

Loci of control significantly influence a learner's belief concerning their learning ability. According to KutanİS, Mescİ, and Övdür (2011) "Internal or external locus of control plays an important role for students to sustain the efficacy and usefulness of learning performance" (p. 114). External locus and internal locus of control are characteristics of a theory at each end of a linear range. The theory explains how the individual beliefs affect the controlling of responses or reactions to life events (Strauser, Ketz, & Keim, 2002). How learning happens is demonstrated in the change of a learner's performance. Driscoll (2005) explains, "Learning is a persistant change in performance or performance potential that results from experience and interaction with the world" (p. 1). Awareness for learning how to learn is a skill indicative of metacognitive thinking for individuals. Learning that how we learn is more important that what we learn is vital to the learner's learning skill growth.

Individuals influenced by external locus of control characteristics justify outcomes because of life events, situational circumstances, successes, and failures. They justify situational outcomes because they are affected emotionally by the external effects of events (KutanİS, Mescİ & Övdür, 2011). They may subscribe to the belief that events have control over decisions which justify the outcomes. Resistance to change is a common approach that supports the justification for the results (KutanİS, Mescİ, & Övdür, 2011). An individual's history of classroom experiences may negatively influence their beliefs of ability resulting in poor decisions concerning the growth of learning skills.

Individuals characterized with internal locus of control attitudes demonstrate actions where personal responsibility for learning is evident in the outcomes. Their self-regulation for the planning their learning is reflected in the objective confidence for revision of their abilities despite external events. Resistance to change is minimal since their actions are paramount to revising the learning skill processes (KutanİS, Mescİ & Övdür, 2011). Self-regulated learners continually improve their learning process through intrinsic motivation.

When these aspects of loci of control are not included in the instructional strategy with learners, learners may take their learning skills for granted. Learners should be guided to plan learning over time. Empowering learners to viewing feedback as a learning opportunity strengthens their acknowledgement and value of learning. Understanding that learning to learn is a continuous improvement process provides a responsible attitude toward lifelong learning skills. Dewey (1997) advocates learning through experience, as every current experience is action affecting future experiences.

The Belief System and Instructional Strategy

The self-fulfilling prophecy is a psychological concept which influences leaning decisions and performance. Field (1989) reflects, “Self-Altering Prophecies are expectations by a source person that when communicated lead to behaviours of a target person that would not have occurred had the prophecy not been made” (p. 151). The teacher and the student’s past learning experiences influence confidence, self-esteem and beliefs about abilities and instructional strategy. Educators must possess awareness of the self-fulfilling prophecy to be able to identify those individuals that have less than positive expectations concerning learning the current course content. Guiding learners to understand that how the result is reached is far more important versus the grade and the belief that the grade is an indication of learning. Designing instruction

strategy to include formative feedback which targets the process helps guide the learner toward strengthening the learning habits. When feedback is only targeting correction the student is motivated to be correct versus addressing the process used to obtain the results.

The self-defeating prophecy is directly contrary to the self-fulfilling prophecy. These are two of the four Self-Altering Prophecies. The self-defeating prophecy from an optimistic approach effects with suppression while the self-fulfilling prophecy from the pessimistic approach reflects confirmed failure belief (Field, 1989, p. 152). Learners as well as instructors may have an historical event that conditioned them to believe that their not good enough at a skill. The belief will influence the student as well as the instructor as the failure in their belief is realized in the learning process or the instructional strategy. Friedrich, Flunger, Nagengast, Jonkmann, & Trautwein (2014) posit, "Pygmalion effects have high scientific and practical relevance due to their potentially positive or negative effects on important student outcomes" (p. 1). Instructional practices that may have negative influence on learning include failure to listen to the student's perceptions, grading competition, enforcement of a right wrong answer approach, self-centered instructional expectations, instructor expectations, behavioral control, or negative judgements targeting the learner's ability.

These actions have significant ramifications over time. Possible negative effects of these types of instructional practices may influence how a student listens to understand, their reading comprehension, how they use information, how they write for an audience, weakened creativity, weakened critical thinking, or failure to learn to establish personal expectations among many others. The methods used to motivate a student to consider the processes used to arrive at a result require the instructor to focus on the process used by the student. When students are told they are wrong, are mistake prone, lack an understanding, or are not good at something, they will

internalize the feedback and form personal judgments. This is extremely damaging to their ability to learn from experience as they rise to their level of confidence. Learning is a process and not a result. Therefore, formative feedback should never be about just correction.

Depending on the subject matter, the instructor should indicate in communicating with the student that the target is the process so that the student understands the formative feedback processes and not just corrective feedback. This communication should be a questioning posture demonstrating to the learner that the instructor is interested in the student's learning process. These questions when applied in a guiding manner invoke the student to discover. That discovery is learning. When the student is given the answers or not guided through the process, they become focused on being right instead of recognizing a learning opportunity to change their process. Guiding students through the steps instead of showing them the steps is the best approach for strengthening efficacy, motivation, and therefore influencing the affective domain elements. No one is ever wrong; instead their actions are an indication of a lack of understanding or a weakness in actions. Everyone believes they are right in the moment and learning to view a different understanding to learn from is an aspect of social negotiation of constructivism.

Student Centered Instructional Strategy

Instructional strategy significantly influences the student beliefs for decisions for learning outcomes. Traditionally an instructor is a subject matter expert. Students have been conditioned in their experience as well as teachers to place value on the instructor’s perceptions. Guidance for learning planning should be discussed to avoid student’s reacting with a judgment expectation. Learning skill growth and real life experience motivate learners to self-direction (Gordon, 2004). Self-talk is the action of emotional intelligence influenced through the values found in the affective domain of learning. Depape, Hakim-Larson, Voelker, Page, & Jackson

(2006) purport “Self-talk has been discussed in literature as a means of enhancing self-awareness and self-regulation, both of which are considered important in the construct of emotional intelligence” (p. 250). The highest level of Maslow’s Hierarchy of Needs is self-actualization. Self-regulation for continuous improvement of learning processes is a fundamental aspect of self-regulation for the planning of learning. Self-actualization is metacognition in action. Learners engaged with self-regulation “Set goals for their learning and then attempt to monitor, regulate, and control their cognition, motivation, and behavior, guided and constrained by their goals and the contextual features of the environment” (Pintrich, 2000, p. 453 as cited in Driscoll, 2005).

Instructional strategy that employs the Socratic Method of open discussion engages students with examples of probing questions to stimulate deeper thinking (Paul & Elder, 2007). Questioning invites more questioning to motivate social negotiation moving students to seek a revision of understanding versus the correction of understanding. Open ended questioning motivates rehearsal of prior learning creating current associations in the brain through social negotiation. Eliciting thought provoking questions from students is an instructional strategy requiring active listening to ensure learners realize that their perception is valued. Active listening requires consideration that differences of opinions are opportunities to learn. Learning to be open to listening to a different perception requires assessing why there is a difference to understand and then consider a revision of the retained knowledge. Boghossian, (2006) posits, concerning constructivist learning, “The purpose of the Socratic Method is give participants a way to arrive at their truth, and the Socratic teacher attempts to guide students to their understanding” (p. 719). The guide on the side instructional strategy requires the instructor to demonstrate an interest in the students learning processes versus a corrective approach driven by

external grade expectation. Through demonstrating an interest in the student's processes versus just the result, the student is motivated to become aware of their learning skill capability and how the abilities can be strengthened. Teaching students to become self-aware is as simple as shifting the focus form the subject to the student's processes to have the student value the subject content through their process. Student reality is then connected to the use of the subject content.

The implementation of differentiated instruction strategy is a student centered practice. How a teacher implements student centered learning is demonstrated through how they guide the student to target process versus depend on being correct with the result. Extrinsic motivation conditions learners to depend on grades as a reflection of learning. When testing is the only means of assessment, the learning of the content is not demonstrated. Instead the proficiency for how well the content is recalled through memory is the only aspect assessed. How one demonstrates the use of content is the important indication of learning. For example, individuals that believe they have learned the multiplication tables simply because they memorized them, may not realize that the continued practical application of the tables over time is the prime reason they can demonstrate they have learned the tables. Continuous improvement is not about correction; instead it is about lifelong learning skills. How differentiated instructional strategy is applied is always subject to revision in the moment. Therefore, the attitude that the teacher has towards how they interact with students must be always open to the possibility of continuous improvement towards student centered learning practices.

The process for designing instructional strategy should follow a prescribed set of steps just as is required in designing curriculum. The ASSURE model developed by Heinrich and Molenda is a guide for developing instruction with a constructivist approach for integration of technology and multimedia. The model addresses several areas of importance for instructional

strategy that align well Gagne's events and learning outcomes as well as Bloom's taxonomy. The implementation of technology is important. However, the model is well suited to every type of instructional strategy. The ASSURE model "utilizes a standard research-based approach to lesson design the easily aligns with any school or district lesson plan" (Smaldino, Lowther, & Russell, 2012, p. 38).

The steps of the assure model are,

1. Analyze learners
2. State standards and objectives
3. Select strategies, technology, media, and materials
4. Utilize technology, media, and materials
5. Require learner participation
6. Evaluate and revise

Analyze Learners

Analyzing the learners is the beginning of this model. The learner's approach for meeting learning should be determined. Smaldino, Lowther, and Russell (2012) speculate "This information will guide your decision making during the design" process. "Key areas to consider during learner analysis include (1) general characteristics of learners, (2) specific entry competencies (knowledge, skills, and attitudes about the topic), and (3) learning styles" (p. 39). Learning styles are important but should not be considered as a learning skill. The analysis of the student characteristics should not be influenced by the learner's modality. Learning skills proficiency should be the focus. Gagne's first event of gaining attention aligns well with this first step. If the instructor's attention is focused on student learning skills then instructional strategy is empowering the learner towards continuous improvement of their skills.

State Standards and Objectives

This phase involves determination of what should be demonstrated from the learning process. Learners must be able to clearly understand learning objective requirements. Include assessment criteria guides the learner to consider how to complete the work. Guiding attention to the work process should influence the learner to be aware of the process. Criterion of assessment should be an integrated element of learning objectives. Gagne's second event of informing learners of objectives is relative here. Proficient written learning objective include four components for a learning objective that describe the intended learning outcome (Mager, 1997).

The ABCD mnemonic is a general guide of the necessary elements that should be included.

A is for audience – identifies the learner?

B is for behavior – action verbs define the skills needed to meet the objective.

C is for conditions - describes circumstances and criteria necessary for the objective.

D is for degree – explains percentage of accuracy and criteria for assessment.

The ASSURE model aligns well here with Gagne's Nine Events of instruction to plan interactions with learners. A necessity is the balance between students receiving content and motivated discovery of a learning objective. Intrinsic motivation of interest and engagement are vital to the learner's reality.

A research study completed on linking the teacher and classroom practices suggests:

> While both lower-order and higher-order thinking skills undoubtedly have a role to play in any classroom, much of the qualitative research asserts that the students of teachers who can convey higher-order thinking skills as well as lower-order thinking skills

> outperform students whose teachers are only capable of conveying lower-order thinking skills. (Wenglinsky, 2002, p. 5)

How the levels of Blooms Taxonomy are integrated into a learning objective is paramount for scaffolding for prerequisite and objectives.

Select Strategies, Technology, Media, and Materials

According to Smaldino, Lowther, and Russell (2012) "When identifying instructional strategies for a lesson, first consider where teacher-centered approaches should be used and where student-centered strategies might be better" (p. 38). Learning materials should align with the proposed instructional strategy. Results of the analysis phase should guide selecting technology, media, and materials by the level of Bloom's Taxonomy. Gagne's present stimulus material and stimulates recall of prior learning are reflected in this phase. Smaldino, Lowther, and Russell (2012) advocate the use of a selection rubric template. Rubrics are an excellent assessment. The below guidelines of a rubric template provide an excellent clarification.

1. Alignment with standards, outcomes, and objectives
   - ✓ Are the materials selected aligned with learning outcome expectations?
   - ✓ Do the materials support the demonstration of the learning objective?
   - ✓ Do the materials match the strategy required to implement the learning activity?
2. Accurate and current information
   - ✓ Is information pertinent and can the materials connect with the learner's reality?
   - ✓ Are the materials current for the strategy selected?
3. Age-appropriate language
   - ✓ Have the materials been reviewed for suitable content for the age of the learner?
   - ✓ Are the materials relevant to the age of the learner's ability?

4. Interest level and engagement
   - ✓ Do the materials match the needs of the learner?
   - ✓ Do the materials connect with the learner's interest?
5. Technical quality
   - ✓ Is the instructor confident they can demonstrate the use to the student?
   - ✓ Will the educational institute's technical system support the use of the technology?
6. Ease of use (for student or teacher)
   - ✓ Do the technical applications meet the level of the users understanding
   - ✓ Has the use of the technical application been reviewed?
7. Bias free
   - ✓ Is the technology bias free from any implications?
8. User guide and directions
   - ✓ Is a user friendly technical guide available for use in the classroom?
   - ✓ Is the guide applicable for the current student level?

Utilize Technology, Media and Materials

Smaldino, Lowther, and Russell (2012) suggest a 5 P process for this phase. Planning instructional strategy implementation is walked through. If the instructional strategy includes technology or not, a walk through with the use will ensure that technology, media, and materials are appropriate for instructors and students. Gagne's event of providing learner guidance and stimulate recall of prior learning are reflected here.

1. Preview technology, media, and materials
   - ✓ Review media for content and flow
   - ✓ Scan to organize the flow of material content

2. Prepare the technology, media and materials
   - ✓ Use the technology to ensure your ability to demonstrate
   - ✓ Organize all the materials from a created listing
   - ✓ Prepare an outline to guide the use of the materials
3. Prepare the environment
   - ✓ Review the learning objective to ensure the environment is prepared
   - ✓ If using technology, verify the technology properly setup and functioning
   - ✓ Prepare the learning spaces for student interaction
4. Prepare the learners
   - ✓ Review the learning objectives interactively
   - ✓ Remind students of the importance of the learning skills
   - ✓ Remind students of the benefit of the learning objective
   - ✓ Describe to students the assessment process and what and how assessment functions

Require Learner Participation

Guiding learners to understand their participation is required is essential to good instructional strategy. Effective instructional practice includes guiding the student for how the learning objective describes what they are learning. Discussing criteria and how that criteria will be assessed is paramount to student centered learning.

According to Smaldino, Lowther, and Russell:

> Today's global economy will require students to have experience and practice applying, analyzing, synthesizing, and evaluating rather than just knowing and comprehending information. This follows constructivist views that learning is an active mental process built from relevant authentic experiences for which students receive informative

> feedback, a response that lets them know the degree to which they have achieved the objective and how to improve their performance. (p. 52)

Educators should interact with the learner to empower them to discover new knowledge through the awareness of the active use of their learning skills. The learner's motivation is vital for engaging and attending to awareness for how they are learning. Gagne's events of learner guidance, assess performance, provide feedback, elicit performance, and enhance retention and transfer are intertwined in this step.

Evaluate and Revise

Evaluation instructional strategy involves review of the assessment process. Were the assessment and feedback processes discussed with learners during application of instructional strategy? Formative assessment is an integrative action that can guide a learner to acknowledge a learning opportunity versus reactions to correction. A most effective tool for effective formative assessment is an analytical rubric. An analytical rubric is a structured form that describes criteria for specific categories. Descriptions of the criteria guide how the student deliverable will be assessed. Providing description of how the work is assessed can guide the learner towards the process for completing the work. Learners motivated to think about how to revise the process skills improve the outcome through the process revision. How the instructor demonstrates an interest in how the student reaches their result can motivate awareness for continuous improvement of learning skills.

Designing Instructional Strategy with Brain Based Learning

Instructional strategy that incorporates brain based learning concepts such as learning readiness, schema, social negotiation, self-regulation, and information processing help guide both the teacher and student toward become attentive to learning processes. Attempting to

comprehend too much information in one time period can exhaust the cognitive process overwhelming the learner's ability to retain information. Individuals that cram for exams may recall content for about 24 hours after which it is lost as content has not be effectively encoded and stored in retained memory as the brain is fatigued. Guiding students to understand that the brain will not retain excessive amounts of knowledge in standalone settings is vital to the planning of learning. Cognitive load theory suggests that daily engagement of shorter time periods supports recall and rehearsal to improve the brains ability to retain information through repetition of experiences. Refocusing attention on content at different times to then return to the work improve content targeted critical thinking. Every instance of review of content strengthens and creates new paths of synapses and dendrites in the brain. As more paths are created new associations are initiated building stronger associations. The more associations that are created the stronger the schema and retention of the content.

Just because we have received knowledge does not mean the knowledge can be demonstrated. Knowledge received is not knowledge experienced. If knowledge is not used it is often lost. A learner that passively receives information is not actively applying the information in their actions. Passive learning does not involve the learner discovering knowledge. Active learning is the engagement of the knowledge into the learner's reality. Knowledge is then retained through the learner's experience. Instructional strategy designed with active learning motivates the learner to discover knowledge as the learning objectives reflect demonstrating divergent and convergent thinking. Drapeau (2014), supports "divergent thinking requires students to think of many different ideas. A student uses divergent thinking to generate different solutions to a problem or a challenge" (p. 4). Convergent thinking is the endeavor to then select

the best solution from among those created. Drapeau (2014) posits, a student "uses convergent thinking to decide which" creative solution "provides the best result" (p. 4).

Instructional strategy that requires students to conform to assessment where correction is the result of testing employs recall which is the lowest level of Blooms taxonomy. Instructional strategy focusing on the learning processes motivates learners toward creativity, critical thinking, and self-reflection to think about how their learning occurs. Instructional strategy that guides learners to revise learning habits promotes metacognition to consider planning learning instead of just doing learning. Driscoll (2005) further posits, "knowledge is constructed by learners as they attempt to make sense of their experiences" (p. 387). This concept is a very important consideration for effective student centered instructional strategy. If the student's approach toward learning is result dominated, then the student is prone toward the result. Guiding students to understand the importance of attention to the planning of learning supports the benefit of brain based effectiveness in the learning process.

The Nine Events of Instruction created by Gagne provide guidance for how instructional strategy should be practiced. The below specifics have implications for the effectiveness of instructional strategy. The events can reflect a strategy that is student centered to motivate the instructor to empower students for learning processes.

1. Gain attention –use of a stimulus change to stimulate responsiveness.
2. Inform learner of objectives – providing guidance to develop learning expectation.
3. Stimulate recall of prior learning – connect with previous learned knowledge.
4. Present stimulus material – stimulation of perception and recognition of patterns.
5. Provide learner guidance –guidance for strengthening learning skills.
6. Elicit performance - demonstration of the learning for performance improvement.

7. Provide feedback – giving the learner guidance to strengthen performance skills.
8. Assess performance – determining progress through formal assessment.
9. Enhance retention and transfer – strengthening meta-cognition of learning skills.

According to Driscoll (2005). "Objectivism is the view that knowledge of the world comes about through an individual's experience of it" (p. 387). Instructional strategy that motivates a student to revise how they apply their learning skills to plan learning necessitates discussion explaining the objectiveness needed for metacognition. To effectively Integrate planning of learning into instructional strategy requires the teacher to understand the difference between training and education.

Training as an Element of Instructional Strategy

Dewey (as cited in Archambault, 1974) wrote, "It's not the doing that matters, it's the thinking about doing" (p. 321). Students motivated toward external reward often repeatedly use similar learning habits always expecting the best results. Every individual that completes a learning objective does so with the intentions of getting the best grade. The learning process may be reduced to a task oriented item on a listing. Continuous improvement for learning is usually far down the list or ignored as the process for completing the learning objective is included amongst every day activities. When learning results are less than expected, students may transfer the justification to the rational of an external event. Multi-tasking which may occur when learners do not have a structured learning plan may have very negative effects on learning outcomes. Crews and Russ (1012) stated, "The existing research reveals that multitasking has an impact on productivity, frequency of error, critical thinking skills, and the ability to concentrate; some research shows multitasking may even contribute to Attention Deficit Trait" (p. 58).

Learning skills such as comprehensive reading, critical thinking, and written communication are life-long learning practices. Guiding the leaner to understanding how learning skills influence life-long learning should be a consideration used in the design of instructional strategy. Different disciplines require cognitive awareness for how a learning skill is demonstrated. The logical elements of the practical use of a discipline directly influence the different aspects of learning skills. How the learner applies their learning skill growth toward the endeavor to integrate the knowledge into their experience must be addressed in the design of instructional strategy. Training the brain should be a consideration for planning of learning and design of instructional strategy. When emphasis is shifted to testing as means to determine learning this can weaken the learner's confidence and efficacy.

Integrating the focus on how time for learning is organized is a very important consideration for successful learning. How the brain functions during interruption and the amount of time required returning to the original brain learning skill is a significant factor in understanding effective management of learning time. Gonzales and Mark (2004) posited that it takes the average worker up to 25 minutes to refocus on a task after an interruption. Learners that are competing with outside demands of family and work are at risk of significantly weakening the learning process. Discussions on planning of learning and goal setting are vital elements in effective instructional strategy design.

Those that do not acknowledge a difference between education and training often blur the two approaches. They may place too much of an influence on the student repeating the desired knowledge which is the lowest form of Blooms taxonomy. How we demonstrate knowledge is an individual action and should not be confused with the expectation of correctness. Constructivism purports that the individual creates their understanding through cognitive dissonance to then

integrate new concepts with prior learned knowledge from experience. How that occurs can be thought of a standard process but each individual's use of the process differs just as each individual's awareness for how they learn becomes a practiced feature of critical thinking versus a reflection of a result usually dependent on a graded outcome. Instructors that seek to understand how the learner arrived at the result shift learning towards a process of learning versus a judgement based on results. Training the mind is integral to the educational process for learning to learn which must be integrated into the instructional strategy.

Application of Learning Goals

Self-regulation theory involves setting goals which requires understanding how learning is planned. Establishing a learning goal process is necessary. The SMART Goal process provides a mnemonic which prioritizes a method for planning goals involving the use of distal and proximal goals.

SMART goal planning process includes characteristics of the goals. These arfe strategic and specific, measurable, attainable, result oriented, and time bound.

1. Strategic and specific - the goal describes a learning objective where the individual must satisfy who and what.
2. Measureable – success is determined by describing how.
3. Attainable – time necessary to complete the result is specified.
4. Result oriented - the goal is scaffolded within a continued progress.
5. Time bound – a specific completion date addresses when.

The students that are self-aware of how they must structure the learning process experience the best result. Constructivism describes how individuals accommodate new knowledge with critical thinking through cognitive dissonance. Good instructional strategy

supports actions that connect the student's reality with the discipline and must be developed through the use of behaviorist, constructivist, and cognitive learning theories. Gredler (2005) stated, "A characteristic of learning theories is that they address the underlying psychological dynamics of events" (p. 17). Engaging constructivism concepts into instructional design supports critical thinking motivating self-regulated student experience (Schunk, 2004).

Well-developed individual personal motivation is a vital aspect of empowering learning. Self-motivation is vital component of a successful learning approach. The ARCS model guides understanding for the motivation for learning. The ARCS model components are A-attention, R-relevance, C-confidence, and S-satisfaction.

1. A - Attention addresses the importance for sustaining a learner's curiosity for influence the motivation to stay engaged by connecting with learner reality.
2. R- Relevance attends to the learner's approach supporting the learning opportunity to earn the best results connecting to other learning objectives across the curricular program.
3. C - Building confidence reflects on the student's ability to become self-motivated toward their successful attainment of the requirements. A student that has been guided to view feedback as a learning opportunity learns from failure instead of developing personal beliefs attached to the results
4. S - Satisfaction is the learner's ability to acknowledge their learning skills strengthened over time. Similar to the instructor that consistently revise the instructional strategy, so to must a learner develop the attitude for improving learning experiences.

Teachers should design instructional strategy to motivate a connection to the student reality. Effective writing of good learning objectives within the lesson plan must include the elements that are to be assessed. Student's that are guided to consider how the work will be completed and what will be assessed are more inclined to consider the planning of learning and the learning process. Nicol and Macfarlane-Dick (2006) argued, "Good quality external feedback is information that helps students trouble shoots their own performance and self-correct: that is, it helps students take action to reduce the discrepancy between their intentions and the resulting effects" (p. 208).

Structured Learning Practices

How information is processed is germane to learning. Driscoll (2005) stated, "When learning occurs, information is input from the environment, processed and stored in memory, and output is the form of some learned capability"(p. 74). The chunking of knowledge is a very important consideration for developing learning activities for instructional strategy. Cognitive processes, individual learning habits, and metacognitive comprehension contribute to perceptions (Gredler, 2005). According to Willis (2007) "the more regions of the brain that store data about a subject, the more interconnection there is. This redundancy means students will have more opportunities" for retention of knowledge strengthening retrieval. "This cross-referencing of data means we have learned rather than just memorized" (p. 311).

Learners conditioned by traditional instructional strategy often develop typical habits where they complete reading assignments as the first part of a required learning objective. Learners that do this are attempting to interpret significant amounts of information without application. This practice involves a significant amount of time to read and comprehend. The learner is invested in attempting to understand the author's written knowledge. When beginning

the required action of the learning objective which may include a presentation, essay, or other form of authentic deliverable, the learner must review the reading material again to recall the relevant information needed to complete the deliverable. Learning how to plan the learning process with using tried methods can significantly reduce anxiety; improve learning time management, and effectiveness of successful learning outcomes.

The SQ3R comprehensive reading method and the scholarly writing process are excellent prioritize learning skill enhancements. The SQ3R comprehensive reading method is a prioritized process for effective content clarification. SQ3R is an acronym for scan, question, read, recite, and review.

1. S – Survey - Scan the entire text to understand how the text is organized. Review chapter titles, headings, graphics, charts, and summaries.

2. Q – Question -Record questions about the content to motivate your thinking. Write the questions while scanning the assigned chapters.

3. R – Read - Read what is relevant to the current assignment first. Highlight the necessary content to be used to complete the assignment. Then read around the relevant content to expand understanding. Answer your questions as you read.

4. R – Recite - Pause after each reading to recite aloud what was just read. Hearing the self-repeat the relevant content strengthens brain association of content strengthening learning.

5. R – Review - Now review what was read from the beginning as this refocuses the thoughts on the big picture for how this content will relate to the current learning objective.

The scholarly writing process is prioritized for effective written communication.

1. Create a writing template - construct a functional essay writing template with blank headings, dates, page numbers, title page, and reference page.

2. Assignment review - clarify the main topic from reviewing the assignment details.

3. Create headings - use the assignment instructions to create headings for each section of the paper.

4. Research the first heading - search the course text and other sources to highlight relative content, book mark relative pages, or create a bibliography of supportive sources.

5. Begin writing – after the headings have been created begin writing the content for the first section.

6. Quote, cite, and reference as you write - construct citations and references as resource content is quoted or paraphrased supporting your original content.

7. Content review - Review the written content for clarity to ensure that the heading topic has been clarified with a good thesis statement in each section. Review each section to verify the flow of the content.

8. Grammar and spelling review - review each sentence for structure, clarity, proper grammar, and spelling.

9. Format review - review the complete paper to ensure that the template reference format has not been changed.

10. Review references and citations - check each reference to verify that the reference connects to the correct source and are valid.

11. Submit your work to a similarity check - by using a similarity check the writer is verifying that the content as quoted, cited, and referenced is original.

12. Proofread - repeat the four review steps with new eyes at least twice before submitting the work.

Conclusion

Instructional strategy that includes the discussion of learning practices may motivate students to revise learning habits. Learning structure suggestions can motivate a student's practical understanding for how changing learning habits can benefit his or her life. Learners may not be aware of the influence of external conditioning and ramifications. Student learning habits may be affected by socio economical and family characteristics. Creating a learning family is an excellent collaborative functional practice benefiting effective learning structures. Learning family structure is a method of establishing a behavioral family process. The family is aware, understands the importance, and benefits for the learner's engagement in the long term goal. The main benefit of the learning family structure is to improve family quality of life versus just the student's focus. Developing a learning family structured process is one of the best gifts a parent can provide for their children. Creating learning structured processes should be important considerations to include in instructional strategy to motivate a learner towards continuous improvement of learning skills.

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