LEARNING HOW TO LEARN:
A PHENOMENOLOGICAL INVESTIGATION OF THE ESSENTIAL STRUCTURES OF LEARNING

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This paper is a philosophical investigation of the process of learning. The analysis of learning is a phenomenological one, using the science of essential structures of consciousness as a foundation for addressing the topic of 'learning how to learn.' This essay is not meant to be an empirical generalization, nor a data supported research study. Rather, it is a personal mapping of a particular educational experience. In that respect, the writing of this paper is a fundamentally necessary and appropriate "capstone," for engaging in this thought experiment has enabled me to more fully understand the importance of the four years that I have spent at Northern Illinois University.

The thought exercise is presented in several stages. The first is an identification of the essential structures of learning. This is followed by examples, descriptions, and illustrations of these essential structures. Finally, there is a discussion of teaching as a learning experience, based upon my activities as a teacher's assistant in philosophy. The phenomenological investigations presented are not necessarily complete. Many relationships, modes, and constitutions of phenomenon can be (and hopefully will be) investigated further. Just as one's first consciousness of a flower may be a blurr of color, further attention may yield extensive detail. As vividness, accuracy, richness, and elegance unfold with the study of the flower, so may this investigation of learning, if carried further, bloom.
The following is an excerpt from my personal journal. I found the keeping of a journal to be an indispensable activity in light of the retrospective nature of this project. I have included several excerpts from the journal throughout the paper.

"It's almost over. Or is it just beginning? Perhaps it is still going on. Upon reflection, what have I learned? I am at an end point, graduation from college, from an institution of 'higher learning.' This end point is simultaneously a beginning point, as well as a mid point. For how can it be that I have finished learning? Surely, this is an absurd notion, even if the exhaustion produced by the past four years (of expending great amounts of energy in order that I might someday become a 'learned person') might prompt me to feel in some way 'finished' with the learning that I am required to do in order to receive a college degree.

But was I required to learn? Or was I required to fulfill requirements which included the completion of $x$ amount of courses in this field, and $y$ amount of courses in that field? Having fulfilled these requirements, have I necessarily engaged in the required amount of learning? Certainly not, if I consider that as I write these words, I am hard pressed to include all of the experiences (the reading, the listening, the hearing, the speaking, the discussing, the arguing, and much, much more) that I have had in four years of college as 'learning' experiences.
However, this consideration on my part again seems erroneous, for if I can recognize that not every experience that I have had in college has led to learning, I have necessarily learned at least something from them. For example, I have learned that I did not learn something, perhaps through not understanding it, not knowing it, not trying to know it, not trying to understand it, or (sadly) realizing that I did not need to know/understand/learn it in order to achieve the status of becoming an 'A' student (whatever that means)... there are any number of processes-unfulfilled that could have led to an aborted learning experience. But that I can (through retrospection) recognize this is in itself learning. Isn't it? Realizing this, could it be that if I were somehow able to 'do it all again,' I would be able to learn (where previously I have not fully learned)?

These questions are puzzling, confusing, frustrating, and above all exciting, for as I stated earlier, this end point (completion of a degree) is simultaneously a beginning point and a mid point.

But, the realization that I have not learned all that I could have is a deflating experience. I am told (by teachers, parents, peers, and others) that now (or rather, as of May 10th) I will have completed a difficult process that has rendered me fulfilled. Being fulfilled has pleasant connotations. Contemplating it, I (almost physically, but definitely mentally) feel a comfortable
sensation at this very moment (it is a warm, satisfied feeling, similar to that which results from enjoying a good meal and having no pressing obligations simultaneously). I picture myself 'filled full' of the things that I have learned, the knowledge that I have gained, and the things that I now understand. But what is it with which I am 'filled full' to the correct degree that enables me to receive a degree? I cannot reach into the person that I am now, the person filled (but not to the brim) with knowledge/understanding/learning and retrieve the Periodic Table of the Elements that I supposedly 'learned' so many semesters ago. Did I simply forget it? Or did I never really know/understand/learn it in the first place? If I did indeed learn it, then why am I unable to now plunge into the depths of my fulfilled ('filled full') self and find it? I am trying at this moment, but I am unable to do this. Should I protest the grade of 'A' that I received in Chemistry, citing "aborted learning" as the reason for demanding a grade change? Indeed not. I snatch it up and add that 'A' to my collection of 'A's, the collection that assures my parents, teachers, future employers, admissions officers, and peers (but not myself) that I am a very well-rounded (is that from being so full of knowledge/understanding/learning?) and 'learned' person. But the full feeling is made artificial by the retrospection that I engage in that leads me to realize that I did not learn as much as others perceive that I have learned (that
the collection of 'A's indicates). The well-rounded and learned person that I supposedly have become is actually partially filled with absolutely nothing (except the realization that these voids are indeed part of my supposed 'fulfilledness'). The voids undermine the structure of the 'filled full' person that I am, and I collapse upon myself, deflated (but only partially).

This all sounds very pessimistic, and I suppose it is. At this point in time, here at the computer, during the almost thoughtless process of transposing this portion of my handwritten journal onto the computer screen in a series of constantly moving, green-on-black images, I feel incapable of original and/or profound thought. (As I write this, I know that it is not true, but as I thought it, it seemed to be a reasonable explanation for the 'learn-helplessness' that I feel upon occasion.)

A thought occurs to me: At one point in a particular political science course in which I was enrolled, the professor felt the need to include a curious set of instructions with a list of possible term paper topics from which we were to choose. He wrote at the top of the page: 'This paper is to be a polished and proper project. This means that you must learn to successfully ORGANIZE. You must organize your words into sentences, your sentences into coherent paragraphs, your paragraphs into sections (introduction-body-conclusion), and your sections into a polished work, discussing one of the topics listed below.'
I laughed out loud. Didn't he forget to instruct us to 'organize your letters into words,' or for that matter, to 'organize your set of curved and straight lines into letters'? Each time I feel as though I am at a loss for words (helplessness washes over me and I actually turn pale as witnessed by my husband on many late nights of studying), I take comfort in the thought that all that is expected of me (at least from some people) is that my lines are organized into letters, my letters into words. From this perspective, I am at a mid point. I have undoubtedly learned some things (enough to not need to learn how to 'ORGANIZE' in the manner indicated by that particular political science professor), while others have evaded me (or I have evaded them), but I will undoubtedly learn more. This is also a beginning point for me in that through this type of reflection I can now comfortably, and with some degree of confidence engage in, or at least move toward the 'reflexive turn' (Plato and Dewey), a process in which thinking 'turns back upon itself as a self-critical process'."

**Investigations: Defining Crucial Terms**

The following definitions are taken from *The Oxford English Dictionary*:

**LEARNING:** To acquire knowledge of or skill in as a result of study, experience, or teaching.
KNOWLEDGE: Intellectual acquaintance with, or perception of, fact or truth; clear and certain apprehension; the state, fact, or condition of understanding.

UNDERSTANDING: To comprehend; to apprehend the meaning or import of; to grasp the idea of.

COMPREHENSION: The faculty of grasping with the mind; the power of receiving and containing ideas; mental grasp.

APPREHENSION: The action of laying hold of with the senses; conscious perception...The action of grasping with the intellect...The act of seizing upon, seize, grasp.

These definitions at first appear to be circular. In terms of trying to investigate the learning process (in order to see if it has actually taken place, for example), definitions seem to hinder the situation. It seems as though for each definition offered, the words comprising it must also be defined, and the words comprising those definitions defined, and so on. But without immersing oneself in a lengthy etymological exercise, the process is hinted at by examining these five activities. In extremely general terms, it appears that learning is based upon some sort of knowing, which is rooted in or follows from understanding, which subsequently entails comprehension. Finally, though comprehension and apprehension are both interpretations of the dictionary definition of understanding, it can be argued that apprehension is a
distinct process, and not merely a synonym for comprehension. This distinction can be intuited before turning to the dictionary to define the terms "comprehension" and "apprehension."

What images or activities become consciously apparent when considering the notion of apprehension? One might immediately think of stopping, pausing, grasping, or grabbing something (or idea, or sensation). The term 'prehensile' is used to describe that which has the ability to grasp or hold, such as the 'prehensile' tail of certain primates. Metaphorically, man surely has a 'prehensile' intellect. The police often 'apprehend' a criminal, which is to say they (in the physical sense) stop him, or grab him. This seems to be an appropriate definition, even in terms of apprehending, whether it is a criminal on the run, or the "meaning or import" of something. Before we can begin to comprehend, understand, know, or learn something, we must grasp it (or stop it from its movement outside our sphere of consciousness) in order to place it within our consciousness, under our scrutiny. With this thing, person, idea, concept, etc. placed in our consciousness, we are then able to investigate it (contemplate it, scrutinize it), which is (or may lead to) our comprehension of the entity we have apprehended. As the definitions cited above state, that which is comprehended can be said to be understood.

The channels by which we are able to apprehend that which we hope to eventually learn are varied and numerous.
Edward Cell outlines a long list of what he calls "learning skills," (in chapter nine of *Learning to Learn from Experience*) some of which are more basic than others. Cell does not make distinctions along the lines of 'apprehending skills,' 'comprehending skills,' etc., but clearly some cognitive activities apply more appropriately to apprehending than others. The use of the term "skill" to describe the following activities implies that they can be learned (as stated in the above definition of learning), which strengthens the notion that we are able to 'learn how to learn.' However, while it is posited that it can be improved through learning, apprehending is not necessarily a learned behavior. Instead, it can be considered a beginning of the learning process.

On the fundamental level, apprehension as a process of 'grasping' must have an object that is apprehended, or 'grasped at'. The objects apprehended as a set of things which we attempt to grasp are information, sensations, meanings, and symbols. One type of apprehended object is not necessarily prior to another. The means by which we grasp at information, sensations, meanings, and symbols are reading, listening, and observing.

Reading as a mode of apprehending is defined by Cell as "receiving meaning through written words." When considering the processes that are put into action when engaging in this activity, it becomes clear that the previously listed objects of apprehension are also components of the means by
which we apprehend. When engaging in the activity of reading, the following phenomena occur:

* Sensation—through our visual sensory perceptions we see the lines, curves, spaces, and points on a page.

* Symbolization—through our conscious visual sensations, we recognize the series of lines and curves as symbols that we interpret as letters, words, sentences, and paragraphs.

* Information—through our recognition of the symbols that comprise the letters, words, etc., we consciously experience them as clusters of information (or potential information).

* Meaning—by experiencing the visually perceived symbols as clusters of information, we receive (or attempt to receive) meaning from them.

These processes also occur when engaging in listening, defined by Cell as "receiving meaning through spoken words," and observing, which is the process of receiving meaning through visual presentations. The sensations and symbols may be of an infinite variety, but the process of receiving meaning from them is fundamentally the same. For example, without the symbolization, recognition of information, and reception of meaning processes, auditory sensations such as one might receive as a member of lecturer's audience are ultimately only being heard. Hearing a lecture is not the same as listening to a lecture. Instead, it is a portion,
or phase of the listening process. Similarly, experiencing the visual sensations of a particular phenomenon is merely the activity of seeing, not observing.

In sum, through the process of reading, listening, and observing, we are first able to apprehend something (that something being a certain set of subject matter, information, or meanings). This is not to say that we comprehend something merely because we have reached toward it and grasped at it. Apprehending a subject matter means that we have become aware of it, or become conscious of it. It is a beginning point in the learning process in that we were not aware of or conscious of the subject matter previously. We have been introduced to it and now experience that it exists as a potential focus of our consciousness.

Once a given subject matter has been apprehended, or "seized" by the intellect, a choice is made as to whether this subject matter remains in the consciousness or not. Turning once again to the dictionary definitions previously given, it is clear that the choice to "contain" the ideas that one has seized (by apprehending them) is the operative activity involved in comprehension. Both apprehending and comprehending involve a grasping of ideas (subject matter, information, etc.) but comprehension carries this process further in that that which has been seized and placed in one's consciousness is held, kept, or contained there as an object of focus.
Just as with the action of apprehending, there are certain experiences that act as modes of comprehending. Edward Cell refers to certain types of mental activity as 'thinking skills' (a subset of 'learning skills'). Based upon this notion, several activities that are phenomenologically significant and distinct to comprehending can be identified. Comprehending as a focussing experience involves describing and organizing information (the subject matter). In terms of these processes, there is a utilization of those activities previously listed as modes of apprehending. Experiencing sensations, symbolizing, receiving information, and receiving meaning are the foundations for comprehending. They act as a basis from which the process of comprehending begins. For example, description necessarily involves sensual perception and symbolization of a given phenomenon. In describing, one gives an account of the phenomenon that they see, hear, feel, etc. Formulating a description of these sensual experiences necessarily requires the utilization of symbolism (such as words, shapes, etc.). Further, a phenomenon must be interpreted as a cluster of information with some (not necessarily yet determined) meaning in order to organize it. Once described, a phenomenon can be organized through classification and definition.

In classifying a particular phenomenon, such processes as relation and comparison are used. Relation involves the recognition (intuition, discovery) certain components of a
subject matter (or the subject matter as a whole) are similar to other things, ideas, or experiences that are already comprehended, understood, and known. Comparison involves contrasting the apprehended and described phenomenon with other things, ideas, or experiences. Definition can follow from classification, or precede it. For example, one may consciously be aware that x is similar to xx and is therefore part of the group of things known as X, defined as two lines crossing. Conversely, description can lead to the intuition that x is two lines crossing, and therefore it should be classified as a token of the type X. Regardless of the order or completeness of these processes, they are fundamental to comprehension.

Returning to the dictionary definitions cited previously, it seems that understanding has been born from the processes apprehending and comprehending. Further, that which is understood is by definition that which is 'known'. Finally, learning is the acquisition of knowledge through study, experience, or teaching. The activity of learning how to learn involves a rigorous retrospective investigation of (a reflection back upon) those experiences which one considers to be an example of past learning. The processes that constitute learning are phenomenologically identified as the essential structures of the overall learning process.

An illustration of the process of learning that something was learned can be understood by reflection on and
investigation of the processes that led to this Capstone project:

* Prior to the apprehension of the notion that learning as a process can be understood, known, and ultimately learned, I considered instances of 'learning' to be those experiences that manifested themselves in successively completed term papers and examinations ("I have demonstrated that I learned the Periodic Table of Elements by successfully identifying the symbols that correspond with certain chemical elements, and by being able to discuss in essay form the nature of inert gases.").

* The evaluation-oriented notion of learning that I assumed to be true was challenged. I began to be able to successively complete term papers and exams without knowledge of, or even introduction to the subject in question. Where I had previously assumed that I learned something by studying it (and after finishing the studying I 'knew' it, as substantiated by good grades on exams that concerned it), this was no longer the case. Though I had never heard of a thing called 'deoxyribonucleic acid,' I was nevertheless able to correctly pick from an equally unknown list of things that item which corresponded to it. I attributed this phenomenon to 'divine intervention' and 'luck' (truly believing in neither) and considered it an 'ability'.

* The terms 'knowledge,' 'understanding,' and 'learning' were completely analogous descriptions of a process that was apparently unrelated to evaluatory
exercises. The point at which I apprehended this (I became consciously aware of it) appeared when I attempted to teach others the set of supposedly known, understood, and learned subject matter that pertained to a course in which I had received an 'A'. I grasped at the notion that learning is something.

* Learning is something, but what? Through consideration of my experiences (the experiences that led to the conscious awareness of learning as a thing), I could only provide examples of things that I intuited that learning was not. These intuited examples were the experiences previously mentioned (receiving good grades, 'divine intervention,' etc.). I began to consider, scrutinize, and contemplate learning as a knowable process. By placing the concept of learning in my consciousness as an object of intellectual focus, I had begun to comprehend it.

* Beginning with apprehending and moving through comprehending, I began the process of understanding and knowing 'learning' as the subject of my conscious focus. This movement included those activities that represent a formal focussing on a particular subject, such as choosing the topic of 'learning' as a Capstone project, seeking sources on this subject, reading about it, and writing about it. This focussing also included informal processes such as retrospective analysis of personal experiences, discussion of the subject, and keeping a record (in the form of a
journal) of reflections, observations, and thoughts about learning.

* I have acquired knowledge about 'learning,' which necessarily means that I have apprehended, comprehended, and understood it as a particular subject matter. Through description, reflection, discussion, reading, writing, and an infinite variety of activities I have learned about learning. I have identified the processes at work in the learning experience (by no means do I know whether I have yet done this completely), and having learned this can reflexively turn this knowledge back upon itself. I can apply the processes that I have learned about learning to any given subject matter in order to determine if I have indeed learned it.

The following is another excerpt from my personal journal:

"It seemed at first as though no one in the philosophy 231 discussion groups wanted to discuss anything. They wanted to be told such things as what the next test would consist of, what something on the syllabus meant, and what the readings REALLY meant (as if the meaning was one or two phrases that summarized universally the essence of the piece—HA) [so that they would not have to read them]. How could these persons have no opinions, no thoughts, no reactions to the stuff their lives are made of? I was told not to be afraid of the silence, the non-response, the non-reaction, but instead to use it against them (us-them,
us v. them, 1985). Maybe they would become so uncomfortable with the silence, so unaccustomed to not being talked at, that they would say something to fill the dead air. It seemed as though the psychological-social dynamic of 'diffusion of responsibility' was working itself out in every class—('I don't have to say anything because someone else will if we sit here long enough.'). Recalling the lessons learned from the Kitty Genovese incident, I singled someone out to help me make it through the hour (MIKE, can you tell me what you think Kant means by this business of the categorical imperative?). This tactic began to work. They would rather volunteer their particular viewpoint than be subjected to a direct question about the readings from me—especially with the grade-giver (the 'evaluator,' similar in force and magnitude to the 'terminator') quietly seated in the back of the room.

I can recall only one time in my life when I had a true seminar experience. It was in kindergarten. After reading a story, or, more precisely, being read at while struggling with the jumbled lines and curves placed before us, the entire class sat down on the floor. Even Miss Avril sat on the floor, always remembering to sit as we did, 'Indian style.' Then, she did a curious thing, something that most adults did not do very often: she was completely silent. We knew what we had to do. We had been told what to do on the very first day. We had to talk to each other about what we had learned that day (upon reflection, the more
appropriate term is what we had apprehended), and this "rap
timeout" (circa 1969) had to last for almost an hour. After
the first few rap sessions it was clear that there were no
wrong things to say, as she didn't correct even the most
ridiculous of comments. The only restriction placed on us
was that we had to talk about school subjects, preferably
those that we had covered that morning. If asked a direct
question, Miss AVRIL would speak, but otherwise any problems
were to be worked out through discussion ("The right was to
make an E is with the stick pointing towards the hand the
pencil's in"). This kind of activity was never repeated
again in school. It seemed as though there was barely
enough time for what the teacher had to say, so that an hour
of her silence seemed wasteful. But what if your parents
didn't ask you what-did-you-do-in-school-today at dinner?
What if you get talked at everywhere?"

This memory brings me to the realization that there is
an often forgotten learning/teaching principle that seems to
be akin to a self-evident truth: THE SOLITARY EXPERIENCE IS
NOT SUFFICIENT.

Further Investigations: More Crucial Terms

The following definitions are drawn from The Oxford English
Dictionary:

SEMINAR: A select group of advanced students associated for
special study and original research under the guidance of a
professor: a class that meets for systematic study under the direction of a teacher.

TEACH: To impart or convey knowledge to; give instruction to; to inform, instruct educate, train, school.

ART: Skill in doing anything as a result of knowledge and practice.

COOPERATIVE: Working together with others to the same end.

The dictionary definition states that a "seminar" is comprised of a group of advanced students that come together (in a cooperative situation) for special study under the guidance of a professor. This implies that true seminars can only take place at the college level. Indeed, seminars are offered at most universities in conjunction with graduate programs and upper-level undergraduate courses. However, it seems as though the activity of meeting and working together for special study is vital to learning, and should therefore be implemented at all educative levels. Seminars at all levels concerning all subject matters in a particular curriculum could conceivably act as a 'checks and balances' system of verification. Teacher and student are allowed to externalize the experiences of each school day and examine them in terms of what they are, not merely what can be gained from them (most notably grades).

In the above journal excerpt, I discussed the experiences that I had in kindergarten and characterized the
"rap session" as a true seminar. By strict definition, it was not a seminar proper, as we were not advanced students, our teacher was not a professor (in the collegiate sense of the word), and the topics that we discussed were not 'special' or related to advanced study. However, the hour spent each day was ultimately a beneficial learning experience. We were each able to act as speaker, listener, observer, writer, reader, and demonstrator, and could thereby examine the 'everydayness' of our education in order to gain insight as to why we were there and what we were doing. We could discuss questions not strictly related to the successful completion of our homework for the following day. Most importantly, we were able to be active by breaking away from the solitary experience of passively receiving information. This active discourse, albeit unsophisticated and unstructured, was a beneficial experience that ultimately enhanced and enriched the processes of apprehension, comprehension, understanding, knowing, and learning, even though we (as five-year-olds) did not consciously realize that this enrichment was taking place. Only through retrospectively becoming aware of the subsequent absence of this activity in my educational experience have I come to appreciate its importance.

The importance of the use of seminars became apparent to me when I was initially confronted with the experience of leading a discussion group in "Contemporary Moral Issues," philosophy 231. We were to meet once each week in small
groups and the format of the discussion was to be decided by the students. We could discuss the readings, the lectures, current events, or virtually anything of interest to the class. The students in the discussion groups were uncomfortable with the prospect of making this format choice, each of them suddenly distracted by their fingernails, the sharpness of their pencils, or the floor, waiting anxiously for someone else to act as a cue-giver and make a suggestion with which they could agree. Ultimately, a format was never decided upon. Discussion of any kind was almost never initiated by the students unless they wanted clarification of what was expected of them in terms of papers and exams. I was stunned that the opportunity of choosing how to spend this time was perceived as a chore, almost an additional 'assignment' that they did not realize that they had to complete when they initially enrolled in the course.

Individually, I asked the students to offer some insight as to why a discussion group seemed so problematic to them. Their comments almost invariably included the followings themes:

* In the classroom situation, students are unaccustomed to making decisions regarding methodology. Most considered it an "inappropriate" activity and something that should be decided by the professor prior to the first class meeting.
* Students are reluctant to express their opinions, whether they concern how a class is to be structured or the subject matter itself. Students perceived their own thoughts and feelings as unsophisticated and uninformed, and were therefore reluctant to articulate them in front of an "audience."

* Students felt that the presence of the professor in the classroom inhibited their free expression of ideas. They were concerned that by virtue of their articulations, the professor would 'discover' that they had not read, did not understand, or had not truly listened to his lectures.

* Some students considered an hour of virtually unstructured discussion to be 'futile,' 'unimportant,' or 'wasteful,' as there was no immediately perceived gain from this discourse. In short, if the discussion did not serve as a means to a particular end, that end being improved paper and exam grades, it was perceived as a waste of time.

* In terms of the students' perceptions of actual discussions, many expressed frustration at their inability to effectively organize and articulate their feelings, opinions, and arguments. Students stated that they knew how they felt about a particular subject, but were unable to express themselves clearly and therefore often remained silent during class discussions.

* Other students were disturbed by the expression of what they considered 'radical' opinions by their peers, various authors, the professor, or myself, yet they did not
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* Other students were disturbed by the expression of what they considered 'radical' opinions by their peers, various authors, the professor, or myself, yet they did not
necessarily express this disagreement in the classroom. If a particular student offered an argument with which others vehemently disagreed, they often made no attempt to refute his or her arguments by offering contrary positions. Instead, they would later express to me their feelings about that individual's viewpoints. Challenging or being challenged is perceived as an uncomfortable experience and thereby something to be avoided.

* Some students felt that the subject of moral issues is depressing, as there are no clear answers to fundamental problems. In most courses, they are accustomed to the presentation of a particular problem followed by practical solutions. The resolutions to moral problems are unclear and often theoretical rather than practical. The unresolved nature of discussions of moral issues was therefore perceived by some students as 'depressing.'

* Some students expressed a lack of interest in the topics covered in the discussions (as well as the lectures and readings), as many issues were not perceived as directly related to their daily lives. In short, the personal saliency of a particular subject matter determined the level of interest (thereby the level of participation in discussion) for many students.

Through an informal survey of the members of the discussion groups, it becomes apparent that many students are unaccustomed, unwilling, and unable to engage in a systematic and cooperative discussion of a particular
subject matter. Instead, they are accustomed to and
comfortable with the passive experience of being 'talked
at,' recording what they hear (but not necessarily what they
have listened to), and regurgitating this data in the form
of papers and exams. Although this process takes place in
room with others, it is a solitary experience in that it
requires only reception (and discharge at the appropriate
times as dictated by due dates for assignments) of
information. It is an insufficient experience in that it
deprives the potential learner of the means by which (s)he
recognizes the learning process, namely the verification
(not necessarily of information, but instead a verification
of learning) that comes from cooperative investigation,
analysis, and examination of a particular focussed subject
matter. Learning and teaching are truly cooperative arts.
They are skills that can be investigated, understood, and
learned.

This investigation is difficult to 'conclude,' as it is
fundamentally a recording of an ongoing process of critical
thought. Through recognition of the ability in each of us
to learn how to learn, we can ultimately become more
autonomous in our conduct. With this autonomy comes
responsibility. We are each responsible for our own
educational experiences in that we must choose to apprehend,
comprehend, understand, know, learn, discuss, reflect, and
cooperate in order for these processes to be successful.

Once this choice has been made, the learner moves through a
series of feelings, emotions, reflections, experiences, and levels of consciousness in the pursuit of experiencing the phenomenon of learning.