Wisdom Profiles and Developmental Rubrics

(click a heading to go to the section)

Discussion of Profiles and Rubrics

A Brief History of Developmental Rubrics

Standardized Developmental Ratings (SDRs) were constructed from a mathematical model of the organization of human behavior created from 1970-1980 (Dirlam, 1972, 1980, Dirlam and Byrne, 1978). The impetus for this work was Noam Chomsky's (1957) review of Skinner's *Verbal Behavior*. In this seminal review, Chomsky argued that there was not a unit of analysis for behavior. The simple implication is that without a unit of analysis, there is no science. Basically no two psychologists or educators, no matter how masterful, could interact with a group of people and agree on what they observed. Psychology in the mid-20th century was as primitive as biology before Avogadro articulated the difference between an atom and a molecule (1811) or Schleiden and Schwann first articulated cell theory (1839).

When I read Lashley's paper in the mid 1960's, it began my life's work: to define the basic characteristics of the fundamental behavioral unit and develop a methodology for identifying, measuring, and analyzing such units. This brazen goal was outlined in a seminar in Lee Brooks' graduate seminar in Cognitive Psychology at McMaster in 1966. I began with the mathematics of organization, since any viable unit had to account for the inexhaustible variety of human behavior. Lashley had discussed the need for hierarchical organization (tree structures), so I began with the problem of organizing and searching through a library. This led me to the discovery that the most efficient organizations are those with 2 to 4 distinctions per level. My 1972 paper on the topic was personally encouraged by Nobel Prize winner, Herbert Simon, who had recently found evidence that memories were "chunked" in groups of two to four items.

A few years later, working through a text on set theory I encountered a series of problems on the Cartesian product. The familiar version of the Cartesian product is the x-y plane with each point identified as (x_i, y_i) an ordered pair of values. Always before I had thought of the two planes as continuous sets of numbers, but doing those problems made two new ideas clear. First, one could just as well create a Cartesian product with discrete sets of two to four items. Secondly, there was no reason to restrict the product to 2 or 3 dimensions, but one could extend it to any number. So this generated a whole new conception of how to organize behavior. We could consider that behavior is organized into numerous dimensions, each of which had only a few values (usually 2 to 4, since evolution is likely to select efficient outcomes). Each behavior then is a point in the n-dimensional Cartesian product for the type of behavior in question. If there are four values per dimension and ten dimensions, this creates 4^{10} or over a million possibilities. The beauty of this system is that one only needs to consider the 4 times 10 or 40 different values to identify or do research on the million possible actions (20 dimensions, with 80 possible values engender a trillion unique behaviors) . Here was a system sufficiently rich to encompass the variety of human behavior.

The next step was to identify values within dimensions for a few common activities. Developmental differences were an obvious and methodologically useful way to distinguish between the values within a dimension. Children's drawings were a useful source since they were readily available, had been analyzed by educators and psychologists and were a record of the behavior that produced them. These criteria were met later in studies of student writing and developmental research articles.

To make a long story (more than 2 decades of research) short (2 sentences), analyses of over 1,000 drawings, over 300 writing samples and nearly 1,000 developmental research articles revealed that in all cases, an adaptation of ecology's Lotka-Volterra (see the succession model below) in an ecosystem applied (see Dirlam, Gamble and Lloyd, 1998, Dirlam, 2003, Dirlam, 2017). This led to the four the patterns in Table 1.

Four Growth Patterns

		UNCOMMITTED	TOO EASY	WORKADAY	INSPIRING
	Examples	*The first to appear in development but collapse with any competition*	*The next to appear in development but if no competition destroy selves by exhausting resources*	*Slow growing but endure for a long time*	*Moderate growth with high competitive strength leads to eventual dominance*
GROWTH FACTORS*	*Ecosystem*	*Lichen*	*Weed*	*Bush*	*Tree*
	Skill Level	*Beginner*	*Novice*	*Journeyman*	*Master*
	Strategy	*Uncommitted*	*Too Easy*	*Workaday*	*Inspiring*
INITIAL STRENGTH	*Native human characteristics / Prior experience*	*high*	*low*	*low*	*low*
GROWTH RATE	*Reinforcement (utility, stimulation, affirmation, support, security) and punishment / Ease of performance / Social profit*	*low*	*high*	*moderate*	*moderate*
COMPETITIVE STRENGTH	*Automaticity / Conformity / Social penetration (depth & breadth of relationship)*	*low*	*low*	*high*	*very high*
	Drawing	Scribbles	Stick people, geometric shapes and base lines	S- shaped curves in outlines and base planes	Controlled proportions and perspective
	Analogous Ecosystem Growth Patterns	Lichens	Grasses, kudzu	Bushes	Trees
	Social Phenomena	Ignore needs of others	Obey authority	Obey group	Obey timeless principles like the golden rule or the Hippocratic oath
	Education	Play	Obey the teacher	Do the minimum work for the desired grade (performance motivation)	Maximize long term knowledge and skills (mastery motivation)
The effects of growth factors differ depending on the percent of resources (time and effort available or social profit expectations)					

Forerunners of Rubrics

The SDRs for writing were provided to New York State's National Advisory Panel for Measurements and Standards in Writing in 1977. They were disseminated as instructions to raters of the Regents Writing Exam and a 4-volume set of curriculum projects called "The Second 'R'" published by the Bureau of English. Primary Trait Scoring (PTS) was introduced approximately during the same period by the National Assessment of Educational Progress and described in Cooper and Odell's (1977) well-read monograph on writing. Dimensions of writing development were first clearly articulated by James Moffett (1969) in his renowned *Teaching the Universe of Discourse.* In 1975 Britton et al. attempted a comprehensive scoring of these dimensions. Ungrounded in any model of organization, it reduced Moffett's dimensions to two by combing traits from different dimensions. It thereby lost the power to uniquely categorize a variety of items that was exponentially larger than the number of terms used to classify. Also, ungrounded in developmental methodology, it used non-continuous age groups and thereby lost its effectiveness to test changes over time. In contrast, SDR's provided the definitional accuracy of PTS with a few levels each of ten of Moffett's independent dimensions of development to provide a powerful and comprehensive structure for assessment. When combined with the continuous age-groups used in the studies mentioned in the Dirlam et al. studies, multidimensional SDRs made it possible to create and test rigorous mathematical models of development (see Background for additional details). SDR's (now called developmental rubrics) eventually spread from the use of this project by the New York State Education department to various disciplines and even to program evaluation.

Current Status of Rubrics

The practical uses of rubrics has created two problems. First, developmental definitions of levels have often slipped back into the PAGE paradigm, where all dimensions use only a variant of the Poor-Average-Good-Excellent framework. This destroys both the reliability and validity of the rubrics, turning them from developmentally useful concepts to mere summary judgments. Secondly, such "scoring rubrics" tended to encapsulate popular beliefs about development that are not supported by the Law of Succession (Dirlam, Gamble and Lloyd's version of the Lotka-Volterra model). Comparing the first three levels within the Rubrics for Creating Rubrics below with the "creative" level reveals the richer and more useful conception of development implied by the Lotka-Volterra model. The term "developmental rubric" contrasts with "scoring rubric" emphasizing both the difference in methodology of the two approaches but also the contrast in goals: to *develop* learners vs. to *score* learners.

Though the creative level of rubrics takes by far the longest time to reach, all levels have their use in all developmental processes. Preserving developmental diversity is as essential to human survival as preserving ecological diversity. Failure to grow the creative levels will be as disastrous as depleting the rainforest of trees.

The Succession Model

The Succession Model (the most detailed expression is worked out in Dirlam, Gamble and Lloyd, 1999 and Dirlam, 2017) applies to repeated instances that result in countable and classifiable products of any human activity, journal articles, classroom or factory work, website pages, performances of musical groups during a competition, etc. It is an adaptation of ecology's Lotka-Volterra equation, which describes ecological growth patterns among species competing for static resources. The products of human activities are classified according to the strategies used to create them which are each identified by a single rubric. The law gives the frequencies of the succession of rubrics for a single criterion. Products may be classified using several different criteria, but each criterion results in exhaustive classification of all products.

There are four factors which define the law of succession:

1. The initial strength – its endemicity or how common it is at the beginning. This is near 100% for beginning or default strategies and near 0% for all others.
2. The growth rate -- how fast it grows. Very high growth rates can cause the system to collapse, so will not last long.
3. The competitive strength – how much commitment its user has. It is subtracted from the growth rates of all competing strategies (the competitive strength of creative work decreases the growth rate of prosaic work).
4. The carrying capacity -- how many instances of the activity can appear in the environment in question. In social contexts it may be referred to as acceptance. Fast growth rates often result in oscillation above and below this figure. Extremely fast growth rates result in collapse of the practice and may be reflected in legal prohibitions.

For the purposes of data analysis, the probability of a given strategy within a single criterion being used during one instance, x', can be modeled by the following equation.

$$x' = x[1+r(1-x/k) - Sc_iy_i]$$

where…

x = proportion of products coded with the same rubric during the immediately preceding instance.
r = potential growth rate of x, $r>0$.
k = carrying capacity of x, $0 \leq k \leq 1+g$ (k is understood as 1 minus the rate of abandoning a strategy divided by the rate of new acquisitions of the strategy).
g = growth rate of the total number of products per instance.
y_i = current proportion of ith competing strategy, $x \neq y$.
c_i = the competitive strength of y_i, $Sc_i = 1$.
 r, g, k and c_i are assumed to be constant characteristics across. instances

This model generates the four growth patterns described under <u>Knowledge Assessment</u> on this site.

Three Models of Change

The Praxomics Model

Carl Phillips described four parameters involved in dietary change: healthfulness, accessibility, taste, and habitualness. Integrating these with ecological parameters that effect changes in species populations enables a succussion model concept of the parameters. Healthfulness resembles the innate growth rate of species, which is analogous to the performance rate of the succuession model. Accessibility resembles the equilibrium level of species populations, which is analogous to the resource level of the succussion model. Taste resembles the competitive strength of species and the commitment strength of the succession model. Finally, habitualness resembles the endemicity of species and the initial usage rate of the succussion model. These four parameters, therefore, describe the dynamics of the usage frequency between two modes of practice, once a commitment is made to a new practice. Developmental succession extends this view from two modes of practice to four (beginning, exploring, sustaining, inspiring).

A Dimension of Successive Modes of Practice with Transformational Modes and Phases of Commitment
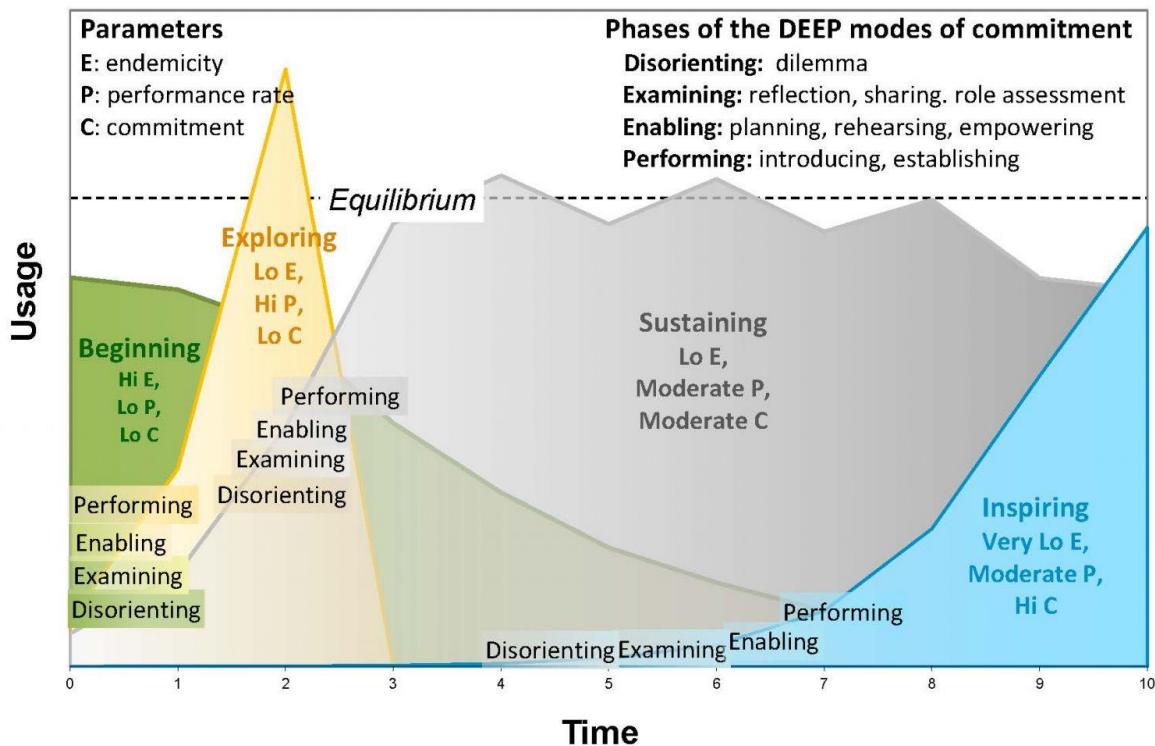
The Phillips-Succession Model integrates three rich dynamic models: one of dietary change, one of ecological populations, and one of modes of practices. These models, however do not describe the processes involved in making a commitment. To understand those processes, we turn to Mezirow's phases and the DEEP modes of commitment that organizes them. A complete picture of the development of a single dimension is included in the figure below.

The Phillips Model

Besides providing a deeply significant profile, an article by our health researcher (reference below) also contributed a major insight concerning the process of wisdom profiling works. Carl's article concerned a mathematical insight into human change that has pervasive implications for the process of wisdom profiling. It applies to every transition in every dimension of every profile presented on this website. But I'm getting ahead of myself.

Carl's article was about changing diets. If you have ever dieted, you will have an easy time connecting with his thinking. If not, think of sometimes that you resolved to make a significant change in your life, like quitting smoking or drinking or overrating the importance of your profession. When did you succeed and when did you fail? Remember all those times when you resolved to improve your life gradually only to discover a few weeks or months later that you had forgotten your resolve.

Carl argued that people's eating habits depend on their efforts to get the best possible combination of four values of the food they eat: the healthfulness, the accessibility (cost and availability), the simple taste, and the habitualness. Sensory psychologists have studied factors like these for more than a century and have developed many techniques for turning them into numbers. These techniques resulted in sensory scales, somewhat akin to baseball statistics for eating. Interestingly, brain researchers, seeking to test such scales, have learned that neurons make similar computations – the strength of their responding depends on factors like these.

So every time we choose a meal, our brains make a sort of calculation of how healthful it will be, how easy it will be to get, how good it will taste and how much like our usual food it will be. Putting numbers and equations to such choice factors is a favorite activity of economists. When they do this, they discover that this is one of those mathematical problems where there is not one and only one answer. Rather there are a few very good answers. For example in choosing combinations of sugar and fat, there are two clusters that work. Carl called one of them the "American" cluster. It is high in fat and high in sugar. What it lacks in healthfulness and accessibility, it makes up in taste and habitualness. The other one he called the "Vegetarian" cluster. It is low in sugar and fat, so what it lacks in taste and habitualness, it makes up in healthfulness and accessibility. Experience results in us getting better and better at choosing one of the very good answers. After long experience, we become so good that if we deviate a little bit from our usual pattern of choices, the overall result is almost always worse. Therefore, people tend to stick with their time-tested cluster.

Yet, and this is the brilliant point of Carl's article, people do change. Many meat-and-potatoes types become vegetarian. Many smokers quit. Many alcoholics give up alcohol. Many disciplinary scientists learn to stop defending their field indiscriminately and begin to see the social costs and benefits of their disciplines as related to other fields.

Carl argues that for diet, successful changes are not gradual. In order to make them, people's choices must leap from the optimal American cluster to the Vegetarian cluster. It's not a matter of tweaking the quantity of meat. It's a matter of changing the whole constellation of experiences at once. The same can be said of nicotine, alcohol, professionalism or most other complex human activities.

All the changes from the master practitioners that I have profiled involve many life-pattern leaps. The bottom line is that if you want to change something in your life, you shouldn't just pussyfoot around. Rather, you should change the entire constellation of habits that goes along with it. That may sound harder than just tweaking a few habits, but eventually you will find a new pattern that works as well as or better than the old and unlike the tweaks, you will lose interest in backsliding into the old pattern.

So how does a person apply Carl's methods to mastery. Assume there is a transition in one of the profiles that you feel ready to make. You are using approach A and you feel ready to use approach B. You can use a simplified version of Carl's approach to help you understand where you are and what you must do to change. First, try to think of three or four very basic and important benefits of both approaches. Next see how the approaches stack up on each of the benefits. Your comparison can be based on "gut reaction", or if you like to keep track of changes, you could use a 1-10 rating scales for each benefit. Finally, try the new way and begin working on improving your ability to achieve the benefits using the new approach. If you're measuring your progress, rate yourself on the four benefit scales at the beginning and after a few weeks of using the new approach. It should not be long before the total of your new ratings is better than the total using your old approach. Wisdom profiling works because acquiring mastery is not merely one of gradually speeding up performance or gradually learning more. Those are important contributions, but in addition, the road to mastery involves many changes in entire constellations of habits.

The Transformative Learning Model

This section describes how are Jack Mezirow's 10 phases of transformational learning are organized into the four DEEP modes of commitment: Dilemma, Examination, Enabling, and Performing. The figure outlines these commitments that enable the transformation from one mode of practice to the next, more complex and effective mode. The phase names described below were defined by Mezirow (1991) and Taylor and Cranton (2012). As described in Dirlam (2017), they are grouped into four commitments below because they occurred at the same time in a study of 500 ratings by several professionals of hour long, one-on-one sessions in a series with individual learners.

Disorientation

- *Detect*: Experiencing an event that disorients one's sense of self with a familiar role.

Examining

- *Reflect*: Engaging in reflection and self-reflection.
- *Assess*: Critically assessing the personal [epistemic, sociocultural, or psychic] assumptions and feelings that have alienated self from traditional role expectations.
- *Share*: Relating discontent to similar experiences of others; recognizing the shared problems [and that others have negotiated a similar change].
- *Distinguish*: Identifying new ways of acting within the role [relationships, and actions].

Enabling

- *Plan*: Planning a new course of action.
- *Rehearse*: Acquiring the knowledge and skills necessary to implement this new course of action.
- *Empower*: Building personal confidence and competence [in new roles and relationships].

Performing

- *Introduce*: Trying out the planned action and assessing the results.
- *Establish*: Reintegrating into society with new role behaviors, assumptions, and perspectives.

Modes of Commitment
(precede each new mode of practice)

Performing
Introduce
Establish

Enabling
Plan
Rehearse
Empower

Examining
Reflect
Assess role
Share
Distinguish

Disorientation
Detect

Rubrics for Creating Rubrics

The methodology for creating the Wisdom Profiles and the rubrics for their use might enrich the readers understanding of the chart below.

July 26, 2006

	BEGINNING	EXPLORING	SUSTAINING	INSPIRING
LEVELS	Binary (bad vs good; missing vs present)	Multilevel (several levels between bad and good)	Multiple independent categories where each level competes with each other level in the dimension	Mixing levels within the same performance.
DIMENSIONS	Single	More than one, but all dimensions use the same levels	Independent but all dimensions use the same number of levels	Independent with even the number of levels within dimensions sometimes varying from one performance to another
GROWTH PATTERNS	Focus on static talent or personality	Simple expansion	Replacement with progressively more complex patterns	Replacement dependent on growth factors (see above) with predictable outcomes
INTERPRETATION	Presence or absence of skill	Level of performance	Multidimensional patterns are typical action level of person	Multidimensional patterns are chosen to fit the circumstance and will vary within the person from one performance to the next
GOAL	Success	Improvement to a higher level	Broad improvement along many dimensions	Awareness of developmental options and the abilities to (1) use any level from any dimension to create the most effective responses to a situation and (2) effectively integrate dimensions from other seemingly unrelated activities
SOURCE	Guess	A committee asked to create a scoring system	Highly experienced masters asked to distinguish people of different levels of experience	Empirical validation (independent ratings of 1,000 samples will reveal different levels having different characteristic growth patterns)

	BEGINNING	EXPLORING	SUSTAINING	INSPIRING
CONCEPT OF DEVELOPMENT	A mystery	Due mostly to either heredity or environment (talent or training) but not both.	Gradual transitions due to both heredity and environment (both talent and training)	Major changes involving (a) a choice among competing options of varying complexity (most of which need to be preserved in order to preserve a healthy behavioral repertoire) followed by (b) extensive complex study, experiment, and practice to perfect the least known choice (see detailed discussion at Health Researcher).

Rubrics for Using Wisdom Profiles

It takes time to develop the skill to use the <u>Wisdom Profiles</u> effectively. The developmental rubrics below should provide some direction to speed up the learning process for anyone interested.

> *Appreciate beginners*. They are all of us. Without them, we know and do nothing, but they drop out or fade fast into explorers.
> *Respect explorers*. They risk all, searching out new paths for themselves, but they burn out or grow into workers.
> *Welcome workers*. Their efforts sustain and they survive.
> *Cultivate creators*. Their leaps of action enrich us, and they transform the untried but true into daily work.

Wherever you are, the sequence of strategies guides you down the way of wisdom. Be grateful for, respect, welcome and cultivate each according to its place.

	BEGINNING	EXPLORING	WORKING	CREATING
RESPONSE	*Be grateful for beginning acts. Without them, we know and do nothing. Conspicuously simple, they drop out or become part of exploring acts.*	*Respect exploring acts. They risk all, searching out new paths for oneself. Easy but grow costly, they burn out or become part of working acts.*	*Welcome working acts. They sustain and produce for self and others. Efficient, they endure or become part of creative acts.*	*Cultivate creative acts. They transform the untried but true into new productivity. Invigorating, they endure or become part of other creative acts.*
ACQUIRE	Read narrative and skim the rubric	Test a few complete sets of rubrics with an example or two	Test rubrics many times and begin to be able to recite major parts of them	Combine rubrics from several different activities to create rubrics for a new activity
USE	Remind oneself of learning to do a similar activity	Critique others	Critique own performance	Create new rubrics
REVISE (FAMILIAR ACTIVITIES)	Imagine how long it took the creator of the rubric to learn enough to make the rubric	Critique rubrics based on your own experience.	Modify rubrics to fit your own experience	Interview others who have mastered the activity to learn their rubrics
REVISE (UNFAMILIAR ACTIVITIES)	Imagine how long it took the creator of the rubric to learn enough to make the rubric	Discuss rubrics with friends who know the activity	Critique rubric based on reading	Interview others who have mastered various activities to learn their rubrics
APPRECIATE	Marvel at the richness of each set of rubrics	Use the rubrics to gain insight into activities you have not had the time to master	Use the rubrics to help you decide whether to undertake the activity	Use your knowledge of rubric creation to understand people you encounter in daily life

			Pose questions	
STIMULATE DEVELOPMENT	Use to organize lessons for whole classes.	Judge the development of individual students.	related to one level beyond the students' most recent performance	Help students to learn and use wisdom rubrics.

Interviewing to Obtain Rubrics

The first step is using developmental rubrics for a particular field is to find masters of a field and interview them to create a wisdom profile. The methodology is outlined in the Wisdom Profiles section of this site.

Integrating and Focusing the List

The most effective wisdom profiles are integrated from independent sources, preferably with feedback from the sources themselves. A key element of this integration is narrowing the list of criteria. Masters will have an idea which of their criteria are more fundamental to production of masterworks than others. A simple way to flush out these guesses is simply to have them rank order the criteria. Ultimately, large-sample tests can determine the validity of the master theories (the page on the law of succession describes the methodology for conducting large-sample tests). Especially when the profile of a field comes from several masters of it, the theoretical guesses are likely to be both imperfect and remarkably accurate.

First Improved Use

Making any but the most trivial use of a wisdom profile requires commitment and learning (see the model of strategy change). Users begin with evaluating records of various learners' uses of the strategies. This can often be done using artifacts produced by learners. Having an independent colleague rate the same artifacts helps to clarify definitions of the strategies. The institutional need to produce summative evaluations often drives this sort of use. But users should recognize that this use limits developmental rubrics to functions that are difficult to discriminate from PAGE rubrics. Recognition that summative evaluation is a "too easy" clarifies the users understanding that "too easy" strategies are often necessary precursors to deeper uses. PAGE rubrics never get past the "too easy" use as summative judgments. In contrast, developmental rubrics have great potential.

Educational Use

Eventually practitioners emerge from evaluators. Once sufficient samples have been rated in an evaluative context, the criteria become well learned. This enables users to become practitioners, using the rubrics to interact with learners. The blessings of this interaction are many. Developmental rubrics are more reliable than PAGE rubrics. They are easier to learn and recognize. For people who have not already mastered the activity they provide inspiration. There is little motivation in telling a student assessed as "average" that he or she could be "good." Discriminating the particular strategies that are assessed as "too easy" or "practitioner" makes it possible to suggest to the student that they could learn to use the more advanced strategy. There is inspiration in that approach. In the hands of more advanced students, developmental rubrics can guide major

life decisions. None of us can master all the activities that we would like. By providing a rich picture of the life of those who have chosen an activity, developmental rubrics lead to more informed decisions.

Creative Use

Sometimes masters emerge from practitioners. Developmental rubrics lay out the state of the art of a field in an astonishingly focused and clear way. Both empirical and theoretical research on a set of rubrics is a powerful microscope for examining its flaws and opportunities. Massive databases of rubrics-based evaluations are already being collected and stored on-line. Even local databases can quickly accumulate to the 1,000 sample studies described in the background links. Studying the distribution of strategies in time and space has the potential to give us as rich an understanding of our human environment as we now have for a biological environment. The drive for such work is nothing less than the stewardship of each other. Masterful use of developmental rubrics will bring about effective stewardship. Leadership for a practical application of this outcome.

Rubrics Rubrics

	BEGINNING	*EASY*	*PRACTICAL*	*INSPIRING*
TYPE	**Dimensions Only** Dimension names only so that those being evaluated only know what categories to work on (e.g., the teacher could respond to a student's first research attempt by saying "Work on spelling, grammar and point of view").	**PAGE** Poor-Average-Good-Excellent, so that those being evaluated only know how they made the evaluator feel (e.g., a teacher could respond to a student's first research attempt by saying "I'm so glad you wrote it, but it's Poor, so try to be Average next time).	**SWELL** Sequences Which Expand Little by Little, so that those being evaluated know what areas they should try harder in (e.g., the teacher responds that the student needs more practice in several areas).	**MODEL** Matrices Organized Developmentally by Expertise and Labeling, so that those being evaluated know what kinds of commitment the evaluator recognized and what kinds of commitment they need to make in order to advance in the field.
SOURCE	**Google** Assessor copies it from the net.	**Author** A sole author writes it for a group.	**Committee** A committee gets together and creates them.	**Merged Interviews** Developmental interviews of each group member are combined into definitions of levels that are unique to how the local group culture envisions the discipline.
USE	**Summative** Capstone only	**Sequenced** Specific Entry-Midpoint- Capstone Courses	**Networked** A capstone project in every course.	**Interactive** Spontaneous interactions of faculty with students in all courses.
ANALYSIS	**Descriptions** Counts and other descriptions,	**Difference Statistics** Significant Differences between course levels.	**Reliability** Correlations between independent raters.	**Ecological** Networks of mutualistic or competitive activities.
APPLICATION	**Critique** Critique a program.	**Accreditation** Write an accreditation report.	**Program Design** Experiment with new approaches to educating students.	**Discipline Building** Help the assessment community improve their practices.

Do Rubrics Stifle Creativity?

Would it stifle creativity to combine a quality improvement process like 6-Sigma with using developmental rubrics to measure human performance? This question is serious for every school, college or university being accredited under the new rules of performance-improvement accreditation. Under this approach institutions must evaluate programs regularly; use the evaluations to identify opportunities for educational improvement; design and implement improvements; and evaluate again to determine if the improvements work. This process sounds remarkably like the venerable 6-Sigma programs implemented so successfully by GE and other major manufacturers. Such programs were designed to improve production quality to the point of less than an average of 3.4 defects per mill products made. But 6-Sigma has been adapted to far more than production with disturbing results.

Business Week (6-11-07) just devoted its cover article to the struggle at 3M between efficiency and creativity. According to the article, the tradeoff began to appear four years after a new CEO was hired away from GE to implement 6-Sigma at this highly innovative manufacturer. The data-driven process of 6-Sigma is encapsulated in the DMAIC ("dee-may-ic") acronym: Define, Measure, Analyze, Improve, and Control. In his first three years, the new CEO slashed capital expenditures by over 40% and imposed on research and development zero budget growth plus the DMAIC process plus the demand for project profitability within two quarters. In the three following years, the stock rose, but 3M dropped from Business Week's most innovative company to 7th place and sales of products released in the last five years dropped from $^1/_3$ to ¼ of total sales.

This website encourages a move away from the "too easy" use of rubrics to judge strategies and the artifacts they enable to a more practical approach to improvement that might to some resemble DMAIC. Rubrics *define* the strategies in a developmental context, make it possible to *measure* them and through recording frequencies of usage within and between participants to *analyze* the measurements. The next two DMAIC steps, *improve* and *control*, epitomize practical or workaday strategies—the sort that get the job done but lead to ennui for participants and their organization. A year before the Business Week article, this site characterized the goal of the Workaday approach to rubrics use as "Broad improvement along many dimensions."

Extensive evidence on this site reveals that *define, measure,* and *analyze* are not the problem. Fully 80% of the interviewees in this document *define* creativity to be essential to mastery. Furthermore, the studies of drawing and developmental research are some of the most comprehensive and analytically precise studies of the products of creative work ever done (see Dirlam, 2017). The problem with 3M and other 6-Sigma users is the demand to use rubrics or any other DMA approach in combination with the demand to *improve* and *control.*

A "masterful" goal of rubric use requires "awareness of developmental options and the abilities to (1) use any level from any dimension to create the most effective responses to a situation and (2) effectively integrate dimensions from other seemingly unrelated activities." A masterful use of rubrics replaces *improve* and *control* with three new steps: innovate, implement and revise the cycle with new versions of each step. This DMAIIR is pronounced "dim air" to emphasize the stratospheric improvements in both productivity and morale that result. Innovation is likely to add new dimensions to a strategy so redefining the development

rubrics at each cycle is important to understanding the impact of the innovation. New measurements and analyses are needed to determine viability of the last innovation and possible paths for further ones. This, in turn, but be implemented to affect productivity. With the DMAIIR process, developmental rubrics enable creative masters to compete more effectively with *improve-and-control* advocates. They energize rather than stifle creativity.

Introduction to Wisdom Profiles

A wisdom profile is based on a single developmental interview. When the dimensions and modes of practices from several individuals in a common field of expertise are combined, they become developmental rubrics for that group of individuals. The two profiles below illustrate wisdom profiles. The singer's profile was the first of more than 300 developmental interviews that I have done. Elizabeth Egan Everett came to a seminar in a small store in Savannah Georgia that I had opened recently. It was called *The Folk Traditions Store* and focused on books and musical instruments of the founding traditions of Savannah, native American, British, Irish, Jewish, and African. The seminar was a the first of a four-session discussion about creating one's own wisdom profile using developmental ideas in my little monograph about memes. Since Elizabeth only could come to the first session, we decided to create her profile together. As a lifelong, semi-professional musician, I was amazed by what I learned from the interview and kept up the process ever since. It is easy to slip back into a Studs Terkel kind of interview, but if you want to achieve the richest possible understanding of a person's expertise in the shortest possible amount of time, I have encountered no other method that comes close to the developmental interview.

That observation makes the second profile remarkable. It apparently came from the multiple-choice quiz paradigm in education. Even though sixteen questions is a short quiz, sixteen dimensions is near the maximum for all the experts I have engaged in 1-4 hour interviews. The author of the quiz had risen above the trivial pursuit of most quizzes to obtain a truly developmental perspective on travel. I used it to keep a journal of my wife's and my silver anniversary trip to Curacao. I do not know the process that was used to create this quiz tp decades ago and can no longer find it on the web. Various namesake quizzes are readily available, but none compares to its richness.

Singer

Elizabeth Everett is founder of the musical group Aurora. She came into the store, bought *Memes in Your Life* and returned for a discussion. Since she was only in town for a short stay, I decided to focus the evening's discussion on creating her memetics profile. Because of her profession, she cultivates a young appearance. So I was not prepared for the richness, precision, and wisdom of her thinking.

Elizabeth generated the profile below in less than an hour. Somewhat stunned, I told her that it would not be fair for her to leave without singing for us. Within a few seconds of song, she reduced me to a state of speechless goose bumps. Aurora is a truly an apt metaphor for her voice -- dancing, luminous bands of sound that are rarely heard except in atmospheres of crystal-like clarity.

Elizabeth Everett, April 23, 2003

DIMENSION	BEGINNER	NOVICE	WORKER	MASTER
MENTAL FOCUS	Trapped by fear	Copying; no confidence	Technically perfect	Spiritually expressive
PHYSICAL FOCUS	Unfocused	Voice, a little breath	Whole body	Body + audience + environment
REPERTOIRE	Learning first song	A few good songs	Huge repertoire	Improvises
REHEARSAL	Once per week or per month	A few times per week	Much singing every day	Integrates singing into every day actions
AUDIENCE RELATIONSHIP	Fearful	Tries to "be" somebody (pretty, an instrument, etc)	Focuses on self	Creating a religious experience for the other person
ENSEMBLE RELATIONSHIP	Feels not worthy	Cat fight	Delight in exchange; comfortable competition	Union into a whole ensemble; no ego

Adventure Travel

Some of the life enhancements of the changing wisdoms model have been described in _Memes in Your Life_. After writing that small book I have conducted the 30 interviews, which are contained on this website and 300 more that I have done with my colleagues at Soundscapes of Newport News, the Savannah College of Art and Design, Hebrew Union College, Virginia Wesleyan University. These interviews have taught me much about the real world meaning of developmental rubrics, the succession model and the utility model of change. I will occasionally have opportunities to share these with readers. I begin with travel insights.

| \
\ _Adventure Travel_			
DIMENSIONS	**BEGIN**	**EXPLORE**	**SUSTAIN**	**INSPIRE**
GOAL	Novelty & relaxation	One of history, people, study, or physical challenge	Two of history, people, study, or physical challenge	History, people, study and physical challenge
LANGUAGE	English gets you by anywhere	Will try to speak the local language	Heavy accent in the local language	Not a native but fluent in the local language
PLACE	Own country	Developed West	Developed Orient	Developing country
CULTURE	Stick with my own	Be self with locals	Become acceptable	Blend with locals
BUREAUCRACY	Forget it	Passport	Visa	Any red tape
STRIFE	None of the above	Bad reputation	Civil rights abuse	Civil wars
HEALTH RISK	Home-like health risk	No shots required	Shots but safe food	Shots & some food poisoning
NATURE CHALLENGE	Comforts of home	Relief when needed	Physical challenge	Survival challenge
GETTING DIRTY	Never	Some days	Most days	Every day
WALKING	<1 mile	1-3 miles	4-9 miles	10+ miles
TRANSPORT MODE	Safe and fast	Slow & close to ground	Speedboat, jeep, helicopter	Anything
TRANSPORT PLANS	I have others plan it in advance	I plan my transportation for my comfort	I'll take a bus anywhere	I'll take a taxi anywhere
LODGING	Luxury only	Comfortable inns	Budget inns	Backpack sites

Adventure Travel				
DIMENSIONS	*BEGIN*	*EXPLORE*	*SUSTAIN*	*INSPIRE*
ITINERARY PLANS	By a tour	By a guide	I do it before going	I do it after getting there
Itinerary Change	Plans come first	Rarely		Whenever interested
Shopping and Dining	Recognized brand names from home	Local stores that also accommodated tourists	Practical places for locals	Indigenous markets and for the extreme adventurer, living off the land
Documenting	Memories only	Photos later rarely reviewed	Photos and journal or letters shared with friends and family	Photos and journal containing new insights for travelers and others
* Except for Shopping and Dining, these dimensions were adapted from the "Travel Adventure Quiz" of www.thirdage.com in 2002 and reprinted here from my *Memes in Your Life.*				

Mastering a new life strategy

Evaluating and modifying your strategies could help you achieve your goals.

By David Dirlam for Coastal Parent

On a sunny day in the 1990s Clara Wise and her husband celebrated their 45th wedding anniversary by helping to remove the bark from logs for an Appalachian Trail shelter. Having arrived early, I was using a very nice debarking tool with a curved blade and two handles to make the job easier.

Clara turned down my offer to trade my debarking tool for the axe that she had picked up. We began working on opposite sides of the same log. Within minutes, I noticed that I was putting in more effort than she and barely keeping up. "You're a master with that axe," I commented.

"We have a saying back here in the mountains." She paused, checked the blade with her thumb, looked over at me, and then continued in her beautiful southern mountain accent. "You know the honeymoon's over when there's dough on the axe handle."

A good user of an axe has practiced many hours to gradually improve the accuracy of each motion. But gradual improvement is not the only change needed on the road to mastery. There are also abrupt changes in strategy. For axe wielding, one abrupt change is when you stop trying to fling the axe and start to let the tool's own weight and sharpness do the work. You begin to see your task not as chopping, but as lifting and letting fall. A second is making sure the axe stays sharp. Another is loosening your grip, so that it is just enough to securely keep the axe from slipping.

Two types of changes occur in mastering any activity. Most people are aware of the hours of practice needed. But we often overlook the need for changes in strategy - and with good reason. When we have practiced one strategy until we have gotten quite good with it, why would we want to change strategies? Why would we want to start all over practicing new habits?

Four Steps to Mastering a New Life Strategy

How do you apply strategy detours to master your own favorite activities? Let's say that you feel ready to make a change but are not sure if it will really pay off. You could be using strategy A and become inspired to use strategy B.

If you are only thinking of getting rid of a habit rather than changing strategies, you will need to think through what it is that you are really doing. Don't think of food vs. not food, but of food type A vs. food type B. Don't think of smoking vs. not smoking, but of relaxing type A (with a cigarette) vs. relaxing type B (some other approach).

Once you know what the two strategies are, there are four steps to changing your strategy:

1. Think of three or four basic and important benefits of both approaches. Write them down.

2. See how the strategies stack up on each benefit and make notes of your feelings.

3. Try the new strategy and work gradually to improve the benefits you achieve using the new approach. Keep notes.

4. Reflect on your notes. If you have improved considerably using the new strategy, you should begin to benefit from it as much as from your old strategy. If not, start looking for a different new strategy.

To answer those questions we need to understand how practice relates to strategy. But this difficult problem has puzzled developmental psychologists for a century. It is the problem of learning (practice) versus stages of development (changing strategies). A solution to this problem would help us to master our favorite activities with less stress, more insight and less effort. As we learn, we could also see the differences between our own performance and those of a master more clearly.

Recently, I came across an article that showed how habits relate to strategies in our choices of foods. Carl V. Phillips wrote the article. I had interviewed him to create a mastery profile for health researchers. For me, the article was not just about eating. It also explained why people learn gradually with practice and then suddenly change strategies so radically that they appear to be in a different developmental stage. It provided a solution to the dilemma of stages versus gradual learning.

When we eat, we start with a strategy that will satisfy our needs for good nutrition, good taste, ease of obtaining and familiarity. The high fat, high sugar diet that we get at fast food chains is an example. As we practice, we get better and better at satisfying our needs with this food. In time, we get so good that when we try to change, we are almost always less satisfied. Just cutting back ends up leaving us feeling hungry. We backslide into our old habit patterns.

Eventually for some people, the strategy fails. They take a step back and consider making a radical change. They might try a vegetarian diet. This whole new strategy results in a whole new set of experiences. As they keep trying, they gradually get better at satisfying their four needs with this new approach. When they get as good at satisfying their needs with vegetarian food as they did with fast food, they almost never backslide.

A radical change in strategy that needs practice to get right is what I call a "strategy detour." It applies not just to eating, but to all the life strategies used in complex human activities.

A master singer that I profiled gave me a memorable example. A person joins a musical group in order to obtain skill, companionship, entertainment and richer music than they can produce alone. It might seem obvious that the best way to do this is to focus on their own accomplishments and those of the other players. My singer, however, called this a novice or "catfight" approach to ensemble relations. It too often ends up in people feeling they get less recognition than they deserve. A more advanced strategy is to focus on what the music requires. By thinking about the piece, the composer, or especially some future audience, people achieve the four benefits more reliably than focusing on each player's accomplishments.

The road to mastery is not merely to practice, to gradually speed up performance and to gradually learn more. Those are important contributions. But the road to mastery also involves detours into entire new constellations of habits. Ignore the detour signs and you are likely to end up retracing your steps. Take the strategy detour and you may not only reach your goal sooner, you may have valuable new experiences along the way.

Besides helping you to change your strategies, the idea of strategy detours, can also help you learn from others. Just for fun, next time you see a master of an activity, try to identify her or his strategies. Look for differences between how they do it and others who are not yet masters. If you let the master know what you observed, get ready for one of those great little life lessons, like, "You know the honeymoon's over when there's dough on the axe handle."

"Yes, and" Leadership

Leadership is about inspiring groups to grow in numbers and productivity. It is often a dialog between management and communities of practice. The classical group development levels were described by Bruce Tuckman in 1965 as forming, storming, norming, and performing. He added adjourning in 1977 and a few decades later Wenger, McDermott and Snyder (2002) added transforming. If you know to look for the law of succession, it is easy to see most of it at work in this sequence. Storming is the too easy strategy. It grows fast and can destroy the group if not superseded. Forming is the beginning strategy and both norming and performing match qualities of the practical strategy.

A 20% reduction in competitive strength is sufficient to destroy the development of *Inspiring* strategies. The classical group development sequence leaves out inspiration and creativity, suggesting that achieving this level of functioning is rare. Why do groups fail to become inspirational? An analogy to Keith Sawyer's (2004) description of improvisation suggests both a reason and a solution. Those with social power over or within the group are too often concerned with controlling it. They deny offerings, assign roles, restrict the responses of members, and appeal to outside authorities. The listen-remember-embellish sequence of improvisational masters is missing from the normative interaction of the group.

We argued in the description of improvisation that it was easy to undermine improvisation by control. If this is true of actors who are on an equal footing, how much more must it be true in organizations which have as their fundamental glue the imbalance in power. Still, it is fun to imagine what would happen in an organization if the role "Yes man" were replaced by that of "Yes, and." Anyone inspired to try such a transformation, however, should be forewarned that it will be far easier to imagine than produce. Improvisation takes training and even then it is hard. We have all developed habits of functioning in situations with uneven power. But there have been leaders who built continually improvisational cultures, some of which lasted a remarkably long period of time. They were neither emperors, kings, generals, nor business moguls. They seldom got rich and seldom worked alone. Rather, they consisted of the ranks of Talmudic rabbis, revolutionary scientists, open-source developers and many others who have created new methods to improve human survival. Power, sex, violence and money are traps that undermine such groups. The sustenance of improvisational cultures is none but the joy of collaborative discovery.

How do improvisational cultures relate to the law of succession and what does the law imply about them? A glance at the two examples on the law of succession page shows how fragile such cultures are. Given a common growth pattern for *Beginner, Too Easy, Practical* and *Inspiring* strategies, a 20% reduction in competitive strength is enough to destroy them. This outcome of the model suggests that there are powerful reasons for researchers to discover more about what increases and decreases the competitive strength of inspiring strategies. When they do, it seems likely that the too-easy management strategies of controlling through denial of offerings, assignment of roles, restriction of member responses and appeal to outside authorities will be found among the causes. But that is the negative side. Just as important, will be findings that show the results of management strategies based on careful listening, practiced memory and "Yes, and..." responses that enrich collaborations.

Educational Enhancements from Developmental Rubrics

This section provides discussion of educational enhancements made possible by developmental rubrics. Foremost among these is the drift that has occurred in assessment rubrics towards judgmental rubrics. Educational researchers are fond of their "formative-summative" distinction, which is misleading at best. It is misleading because it puts the two types of processes on an equal footing, suggesting that they only have different purposes. Summative evaluation occurs when an educational event (e.g., course or workshop) is over. It often uses a variant of the PAGE format (Poor, Average, Good, Excellent) and thus, provides emotional reactions with little useful developmental information.

Developmental evaluation uses multidimensional developmental pathways to guide the improvement. Developmental evaluation is similar in intent to formative evaluation. Both have the goal of helping the person being assessed. But formative evaluation is often little more than suggestions for improvement. Developmental evaluation uses multidimensional developmental pathways to guide the improvement. To see a rich variety of developmental pathways, visit the [wisdom profiles](#) of this site.

The application of developmental rubrics was exemplified by teachers in the Educational Research and Demonstration Center (campus school) at the State University College at Plattsburgh, NY, who helped to refine the first system of developmental writing rubrics (see Dirlam, 2017). Because of their familiarity with the system they could assess a student's writing sample in less than a minute longer than it took them to read the sample. If they found a particular dimension where the student used a less developed strategy than for other dimensions, they would ask the student a question about the next strategy in the sequence for that dimension. For example, if the student wrote in such a way that they were the only one who could understand key aspects of their discourse, the teacher might ask them if a particular good friend of theirs could understand it. They didn't have to tell the student that their work was inferior, and they knew a way to improve it. All they had to do was ask a developmentally based question. If the student were ready to try the next strategy in the sequence, they would. If other aspects of the writing process were more important to them at the moment, the student could ignore the question. Otherwise, they would attempt to solve the writing problem. According to a writing educator of the New York State Department of Education's Bureau of English who visited several classrooms, this use of rubrics resulted in the average 5th grade campus school student writing well enough to pass the New York State's high school regents' exam.

Judging vs. Stimulating Development

Judgmental rubrics are ultimately a burn-out strategy, that in the past has been sustained by accrediting agencies, who are even now moving to a more advanced approach involving a self-assessment research cycle.

Developmental rubrics imply the co-creative qualities that masters in every field exhibit. Instead of extending the "summative" description for rubrics that include PAGE levels, the term "judgmental rubrics" more accurately conveys their use and place in the development of educational assessment. Few in western society will miss the implication that "judgmental" refers to both a less useful and more arrogant process than developmental rubrics. Judgmental evaluations are ultimately a burn-out strategy, that in the past has been sustained by accrediting agencies, who are even now moving to a more advanced approach involving a self-assessment research cycle. "Developmental rubrics" on the other hand imply the co-creative qualities that masters in every field exhibit. As shown in the discussion on [rubrics for using wisdom profiles](#) Judgmental rubrics are a novice approach; developmental rubrics are a master level approach.

The first educational enhancement for this section concerns course evaluations. It is designed to provide students as well as professionals in academic assessment a means for co-creating developmentally appropriate educational strategies for courses.

The second educational enhancement for this section concerns program improvement. Specifically, the question is addressed of whether using rubrics to improve programs stifles creativity.

Course and Faculty Evaluation

Course evaluations or teacher assessments are poison topics for many academic assessment programs. Often assessment departments either leave the task entirely to faculty committees or provide faculty formats for developing their own forms. Forms that are centrally available are usually based on judgmental rubrics. The judgmental approach helps neither teachers nor students to identify new teaching/learning strategies that are within the reach of the personal and collective resources available. Not only are judgmental forms a novice approach to assessment but they in turn engender novice responses, such as sabotaging the form, the data collected with them or the community uses of the data.

The following set of developmental rubrics has been formatted like a typical multiple-choice questionnaire. The criteria were adapted from two sources: (1) Developmental Interviews of senior faculty and (2) "A rubric to help evaluate one's teaching skills. Adapted from "*Effective Professional Practice: A Framework for Teaching*" by Charlotte Danielson and published by ASCD. Individual rubrics were modified so that each level indicates a unique developmental strategy, rather than the degree of applying a single strategy.

This assessment tool also does not wait until the course is nearly over for students and instructors to begin interacting about the educational approach. Rather the suggested interaction occurs in a time frame that can be effective for both of them. "Weekly" implies only that the assessment is restricted to the current week, not that it should be done weekly. In a fifteen-week semester, it might be done after weeks 2, 8 and 14 or in a 12 week quarter after weeks 2, 7 and 11.

Repetition and novelty are two of the most powerful learning stimulants. Repeated use of this form will automate thinking about known educational best practices. Such automation can enable the creative use of these ideas. There is an enormous literature on education. As new "best practices" get established, the form should be modified to include them. When a new practice is added, however, information or hypotheses about the developmental significance of the approach should be considered. What "too easy" or even working level practices normally precede it? What experiences are necessary to master it and how does masterful use differ from working level use?

Student Learning Assessment Report

Program: _____   Date: _____ / _____ / _____

Author: _____

INTRODUCTION
(use the expandable grey boxes below to describe)

ASSESSMENT PROBLEM

Place a check next to the type of assessment problems that was described above.

✔	LEVEL	Title	DESCRIPTION
	BEGINNING	*Instrumental*	Comply with college, Federal financial aid, or accreditation requirements
	EXPLORING	*Demonstration*	Show what the program has accomplished.
	PRACTICAL	*Program Questions*	Learn things about the program that nobody has the answer to.
	INSPIRING	*Innovation*	Find and test new ways to have impact on students that endure for decades and generate emergent effects.

PROGRAM STUDENT LEARNING OUTCOMES

(list all program outcomes below):

Place a check next to the best description of how the learning outcomes were identified.

✔	LEVEL	Title	DESCRIPTION
	BEGINNING	*Unmeasurable*	Stated in such a way that no unambiguous measure can be developed.
	EXPLORING	*Incomplete*	Too few (< 5) or represent only a minor portion of the program's mission.
	PRACTICAL	*Comprehensive*	Created either by a disciplinary accrediting agency or departmental faculty, the outcomes reflect all aspects of the program's mission and offerings (e.g., several disciplinary experts individually contribute developmental insights using either examples of student work or collaborative interviews with a developmentalist that are combined into definitions of levels).
	INSPIRING	*Unique and analytical*	Collaboratively adapted rewordings of comprehensive outcomes for greater validity, reliability, program identity, and ease of communication to students and the public.

METHODS

VARIETY OF LEVEL(S) OF STUDENTS WHO PROVIDE ASSESSED WORK

(list the levels or courses):

Place a check next to the best description of the levels of student work assessed.			
✓	*LEVEL*	*Title*	*DESCRIPTION*
	BEGINNING	*Summative*	Program raters assess work from only one course (usually at the capstone level).
	EXPLORING	*Formative*	Program raters assess work from specified Entry, Midpoint, and Capstone Courses.
	PRACTICAL	*Programmatic*	Each student is assessed at least once per course.
	INSPIRING	*Interactive*	Assessment details are mentioned during spontaneous interactions of program faculty with students in all courses.

KINDS OF PROGRAM ASSESSMENT MEASURE(S) USED

(describe below and append rubrics, checklists, or locally made tests used):

Place a check next to the best description of the kinds of program assessment measure(s) used.			
✓	*LEVEL*	*Title*	*DESCRIPTION*
	BEGINNING	*Descriptions*	Grades or narrative descriptions.
	EXPLORING	*Generic*	Generic measures only loosely connected to PSLOs, such as standardized tests or Likert-scale ratings with sequences that expand little by little (SWELL rubrics) and are the same for multiple criteria.
	PRACTICAL	*Developmental*	Classroom artifacts from representative Individual students are assessed by at least one faculty member using a tool that provides a measure of reliability and discriminates levels of student experience defined by the PSLOs (i.e.e, developmental rubrics).
	INSPIRING	*Multiple*	Assessments are compared with student performance on developmental ratings and a second type of assessment measure.

RESULTS

Number of Assessment Cycles that were Compared

(list below):

Place a check next to the number of assessment cycles that were compared.				
✓	*LEVEL*	*Title*	*TOTAL STUDENTS IN ALL PROGRAM COURSES*	*NUMBER OF STUDENTS ASSESSED*
	BEGINNING	*1 Year*		
	EXPLORING	*2+ Years Compared*		

PRACTICAL	*1 Cohort (4 years)*		
INSPIRING	*Multiple Cohorts*		

ANALYSIS

(describe both the specific analysis used and the results obtained below):

Place a check next to the best description of the type of analysis that was described above.

✓	*LEVEL*	*Title*	*DESCRIPTION*
	BEGINNING	*Percentages or Descriptions*	The % of students at each level who have achieved the SLOs or a general description of student performance.
	EXPLORING	*Reliability*	Correlations or percentages of agreement between independent raters or test-retest reliability either from a locally made test or from the standardized test documentation.
	PRACTICAL	*Differences*	Tests for statistically significant differences between student experience levels.
	INSPIRING	*Network*	Networks of mutualistic or competitive activities. Course impact scores from a network of learning outcomes ratings.

CONCLUSIONS

PROGRAM OR ASSESSMENT CHANGES

(describe the changes that were or will be made in either the program or the assessment as a result of the findings):

Place a check next to the best summary of the type of program or assessment changes that were discussed.

✓	*LEVEL*	Title	*DESCRIPTION*
	BEGINNING	Demonstrate	Show value gained by students from the program.
	EXPLORING	Critique	Show some areas for potential curricular innovation or assessment improvement.
	PRACTICAL	Experiment	Compare differential effects of curricular approaches.
	INSPIRING	Contribute	Help the assessment and accreditation communities improve their practice.

REPORT METHOD

(use the rubric below):

Place a check next to the best description of the report method used.			
✓	*LEVEL*	Title	*DESCRIPTION*
	BEGINNING	Descriptions	Describe what was done and found in a story format.
	EXPLORING	Standard	Use separate sections for outcomes, means of assessment, results, and use of results.
	PRACTICAL	Problem Solving	Identify questions about curriculum that assessment could elucidate, describe changes in assessment and program from prior year, compare new with prior results, and relate conclusions about program changes to them.
	INSPIRING	Assessment Research	Relate all aspects of a problem-oriented report to literature in the discipline, educational research, or assessment.

INTENDED READERS

(use the rubric below):

Place a check next to the best description of the intended readers of the report.			
✓	*LEVEL*	*Title*	*DESCRIPTION*
	BEGINNING	*Internal*	Program faculty and accreditation officials within the college.
	EXPLORING	*Institutional Professionals*	Faculty in any institutional department as well as board members administrators concerned with assessment.
	PRACTICAL	*Institutional Stakeholders*	Current and prospective VWC students, parents, and staff as well as institutional professionals.
	INSPIRING	*The Public*	Conferences, journals, magazines, newspapers

APPENDICES

Student Evaluation of Weekly Instruction

Course: _____ **Instructor:** _____

Meeting Time: _____ **Today's Date:** _____ **Week Number:** ___ **Out Of A Total Of** ___ **Weeks**

Choose only one answer per question

Which answer below best describes yourself?
___ I do not expect to make much use of the information from this week's classes in my work.
___ I am learning this week's subject, but don't use it much outside of class and homework.
___ I will be using the information from this week every day in my work within a few years.
___ I use the information and skills learned this week nearly every day in my work or daily life.

Which answer below is most typical of your Instructor's knowledge of this week's subject?
___ The instructor read from the text or notes.
___ Instructor compared views of experts within the field.
___ Instructor compared views of experts in and outside of field and tells how to improve on their answers.
___ Instructor developed unconventional sources about the field or contributes to knowledge in it.

Which answer below best described your Instructor's knowledge of student development this week?
___ Instructor often presented activities or skills that are too hard or too easy.
___ Instructor presented a few learning strategies for each activity and emphasized repetition of the strategy.
___ Instructor presented a variety of new learning strategies that you did not think of before.
___ Instructor described several whole sequences of strategies needed to master various aspects of the activity being taught.

Which answer below that best describes your Instructor's use of your time this week?
___ Instructor met every class but spends too much time on irrelevant issues.
___ Instructor focused well when class meets, but cancel all or part of a class.
___ Instructor filled the scheduled classes with effective learning activities.
___ Instructor prepared for every scheduled class and created at least one surprisingly effective learning activity.

Which answer below best describes your Instructor's approach to this week's course goals?
___ Instructor rarely mentioned how class activities relate to course goals.
___ Instructor focused on specific content for each daily lesson and mentioned course goals occasionally.
___ Instructor connected each daily lesson with other lessons, other fields, personal applications and the course goals.

___ Instructor sought to inspire, motivate and inform beyond the daily lesson by teaching how to make creative use of the subject to benefit others.

Which answer below that best describes your Instructor's approach to using college resources this week?

___ Instructor relied solely on texts plus the materials and equipment in the classroom, shop or lab.

___ Instructor used college resources outside of the class, such as the library, but does not insure that students consult the college experts in those resources.

___ Instructor helped students draw from various college resources and the experts in them, such as the library, other departments and administrative units.

___ Instructor helped students use societal sources outside of the college, such as the community or professional organizations.

Which answer below that best describes your Instructor's approach to student assessment this week?

___ Instructor either collected no assessment data or based assessments on ease of data collection rather than course goals.

___ Instructor judged students using a common type of assessment, such as the number of facts learned or the number of problems solved.

___ Instructor judged students using a variety of assessments, including active student performance in natural situations.

___ Instructor used assessments as ways to discover and expand student strategies for achieving lesson goals in settings beyond the college.

Wisdom Profiles not in Dirlam (2017)

All developmental interviews were conducted by David Dirlam.

Administrative Assistant

Alvenia Jones is Administrative Assistant to the Executive Vice President of Savannah Technical College. She has 32 years of experience in various clerical positions in Savannah, GA. She is one of the organizers of an informal group, which focuses on mutual encouragement in the job settings.

Created April 11, 2006 by Alvenia Jones assisted by Alexa Schider

RESOURCE	BEGINNERS	NOVICES	JOURNEYMEN	MASTERS
POSITION OVERVIEW	Overwhelmed by details	Begin to see how one duty affects another	Have processes both memorized and written down	Develop and teach new processes
PROCESSES				
CUSTOMER SERVICE	Not clear about who the customers are or how to keep them satisfied. Easily intimidated.	Learn about customer service through courses and workshops. Learning more "tactful" approaches.	Keep customers satisfied using interpersonal skills and approaches common to the organization.	Develop new approaches for keeping customers satisfied
KNOWLEDGE SEEKING	Don't know what they have to learn or what the professional growth opportunities are	Afraid to admit what they don't know. Attend when suggested or required by supervisor	Know when to ask and where to look. Seek out and take workshops, seminars, courses.	Provide workshops, seminars, courses
MODEL SEEKING	Unaware of need for model	Look for a model and mimic (sometimes w\o the model knowing it)	Know their own knowledge gaps and look for coach(es) they can learn from	Encourage others to find a coach
RESPONSE TO CRITICISM	Emotional and personal. Apply too generally to whole self or rejects entirely.	Begin to focus on the job need identified in the criticism but still overly sensitive.	Identify themselves as team members and seek to discover the best methods to accomplishing team goals	Encourage others not to take things personally but to think about why we are here

RESOURCE	BEGINNERS	NOVICES	JOURNEYMEN	MASTERS
PROFESSIONAL ATTIRE	Have some idea, but often include details that are not within the norms for the position and organization	Investigate what the norms for the position and organization are and follow them	Dress according to the norms of the position they hope to attain rather than the position they are in	Set example, mentor and encourage others
COMMUNICATION FORMS	Flit from one to another creating a hectic environment	Begin to learn conventions of environment	Follow convention of continuing to focus on person with whom the interaction began earlier. If on the telephone, use gestures to communicate to a face-to-face visitor.	Develop new solutions to interaction problems
ORGANIZING DAY	Don't know what to expect	Learn supervisor's needs. Try to make lists of activities for next day	Keep notes of what happened and phone messages	Adapt organization to own, teammate's and customer's needs
ORGANIZING SPACE	Accept space given and make awkward organizations	Focus on own needs or if missing desired equipment, don't act.	Accommodate own, teammate's and customer's needs (e.g., comfort and privacy). Improvise.	Advise and assist others with space organization
SUPERVISION	Apprehensive about letting go of duties. Make trust the primary issue in interviewing. Fail to explain tasks.	Divide job into processes and projects, explain in segments. Add new segments when ready. Encourage professional development activities for current tasks.	Teaches employees until comfortable with letting go. Encourage professional development activities related to any aspects of current job.	Care about employees personally. Encourage them to do their best for the organization and to identify and seek goals beyond their current position and to attend professional development activities related to potential advancement.
PROJECTS				
RELATE TO ASSIGNMENTS	Don't know what to ask	Complete tasks because they are told to	Want to know why in order to create overview	Relate each project to organizational needs
ORGANIZE MEETINGS	Don't know where to start	Miss details because they lack an overall concept	Build up overview by creating agenda, welcome sign, supporting materials; reserve room	Begin with big picture, create a process, timeline with responsible persons identified

RESOURCE	BEGINNERS	NOVICES	JOURNEYMEN	MASTERS
RESPOND TO dictated letters	Try to create final copy but use own format and ask about too many details.	Create final copy each time from a blank file and use aspects of form from other letters from supervisor	Do in stages including composing with supervisor, offering critiques, drafting based on similar letters, returning copy to supervisor for final details, and finishing.	Create drafts for supervisor's critique
SCHEDULE appointments	Either take name and assign time arbitrarily or ask supervisor about every detail	Ask how long it will take and sometimes adapt schedule to responses.	Find out how much time is needed, the gist of the meeting, the schedules of key participants, match with prior knowledge of supervisor's preferences	Helps supervisor prioritize

Automobile Salespersons

This is a composite profile from two automobile dealership sales managers. The authors asked that their identifying characteristics be excluded because a few of the practices mentioned are those present in the industry but not always desirable from a customer's (or ultimately a dealer's) long range perspective. The interviews were conducted with Savannah business consultant, Gordon Matthews, who was the interviewee for Financial Executive. I was deeply impressed with the insight of these hard-working managers. They have provided every bit as rich a theory of the development of their field as any of the other masters profiled. In general, they view a beginner as someone with 0-2 years of experience. A novice has at least 2 years of experience and regularly sells 5 or more cars per month. Journeymen have at least 3 years of experience and sell more than 8 cars per month. Masters have 5 years of experience and sell more than 12 cars per month. Most of us, having suffered through a plethora of beginning, novice and journeyman salespersons, can benefit from learning the qualities of a master. In doing so, we will learn to appreciate not only the difficulty of getting there, but also the value of being helped by one.

Two Sales Managers assisted by financial consultant, Gordon Matthews, MBA, CPA, December 22, 2003

"THE ROAD TO THE SALE" (DETAILED VERSION)

RESOURCE	BEGINNERS	NOVICES	WORKER	MASTERS
	No record: 0-2 yrs	5+ cars/mo: 2+ yrs	8+ cars/mo: 3+ yrs	12+ cars/mo: 5+ yrs
MEET AND GREET	Enthusiastic. Lose some sales because they fail to log name and contact information. Often forget what customers say, even name.	Enthusiasm varies with mood. Lose information. Rattle on about feature and benefit ("Talk their way through the sale."). May avoid a customer that appears different from themselves.	Rarely excited. Read customers better. Approach any customer. Look for title in compartment or brochure from another dealer.	Friendly. Realize that customers are afraid of process and managers only there to support the process. Repeat name over and over during first few minutes. Rarely prejudge customers. Quickly adapts style to that of the customer.
FACT FIND	Don't know how to ask for personal information. Freeze up at first customer challenge ("I'm just looking." Or "Give me your lowest price.") May skip step, ask for help or just get rid of the customer.	Do fact finding most of the time. Much better at getting name and contact info. Get some qualifying info and often make premature decisions on credit worthiness resulting in skipped steps.	Get contact and qualifying info (purpose of car, trade, trade-in financer). Make premature decisions to save time even on slow days.	Ask questions to establish relationship as well as qualification (e.g. Find mutual acquaintance. Who's it for? Where do you live? Who do you live with? Would they help you get started? Where do you work?) Stay open to any way to put a deal through. If no way to deal, get name and number, find an excuse and give away.
SELECT FROM STOCK	Don't know stock.	Select from what they see.	Either ask somebody else to find the best match on the computer or do it themselves.	Know most of the inventory but use computer to verify.
FEATURES AND BENEFITS	Overwhelmed by product information, but this can be an area of security for those with long-standing interest in cars.	Know enough about product to be dangerous. Have learned what product information is needed by buyers and what's not needed to close sales. Don't do as thoroughly (e.g., may not pull out of line and open all doors)	Well-versed in product knowledge but may be not attentive. If a customer wants to know, they will answer questions.	Have all the product knowledge they need to sell any car in inventory to any interested and qualified person. Most elite customers know more about cars – let them be the expert but focus on the match with their needs. Make sure the customer knows car and has all gadgets fixed before driving.

RESOURCE	BEGINNERS	NOVICES	WORKER	MASTERS
	No record: 0-2 yrs	5+ cars/mo: 2+ yrs	8+ cars/mo: 3+ yrs	12+ cars/mo: 5+ yrs
DEMO	Do this well but focus more on feature/benefits than on customer needs and wants	Compensate for weak feature/benefit by doing it here. Gain momentum and ask trial close questions.	Flip keys 80% of the time to save time and avoid offending people with their presence.	Often drive first to demo features that customer is interested in. Always ride with the customer in order to be present in their conversations and keep in control of information.
TRIAL CLOSE	Usually allow customer to pull into lot rather than sales slot and then become stressed about how they can do a trial close without assistance.	Bring inside to work on paperwork. Do the close completely or get manager to help.	Aim at volume rather than customer service. Initiate trail close without preparation or adequate information about customer. Believe people's objections.	Wants to see the trial close through correctly. Addresses objections and concerns.
TRADE-IN EVALUATION	Can't evaluate trade-in value.	Can make rough guesses but knows they are unreliable.	Can do some accurate appraisals of more common models.	Can appraise accurately without assistance.
SUMMARY AND CLOSE	Often fail to ask for sale (afraid of getting told "no"). Make many mistakes in price, arithmetic.	Still awkward about asking people to buy but know quotation arithmetic and make fewer mistakes.	Recaps benefits and buyer's agreements but may get stuck in objections and fail to ask for help. Know quotation cold and can do fairly well at appraisal. A mistake is leaving money on the table.	May go for close right after demo. Usually recaps benefits and agreements. If not successful, always gets to real objection (decision maker, timing, price) and tries to solve it. Uses various close techniques (e.g., Ben Franklin).
DELIVERY	Paperwork is not ready.	Paperwork is incomplete.	Well planned and organized with paperwork ready. Go through all the parts and coach the customers on survey.	Another performance – a fun event for customer. Does complete thorough delivery with respect for customer's time. Handles all details that might delay the customer. Get all 5's on survey without coaching customers.
PERSONAL RESOURCES				
TRANSAC- TION FOCUS (MOST PRACTICED THOUGHT)	Get the car off the lot and collect the money.	Complete the process with a high rating on the customer survey.	Use the sale to build a base of repeat business relationships.	The needs, motives and interests of the customer in order to create "customers for life."

RESOURCE	BEGINNERS	NOVICES	WORKER	MASTERS
	No record: 0-2 yrs	5+ cars/mo: 2+ yrs	8+ cars/mo: 3+ yrs	12+ cars/mo: 5+ yrs
LISTENING TO CUSTOMERS AND RETAINING INFORMATION	Nervous. Overwhelmed by customer information and loses most of it. Talks too much. Try to turn training into a sale or at least avoid explosive situations.	Start to be a little more aggressive with customers. Ask questions about who it's for. May ask so many questions that they irritate customer.	Know the questions to ask but sometimes forget to ask them and sometimes go so deep that it irritates the customers. Remember name (or write it down). Know how important information is to the sale and know the power of silence.	Repeat name after hearing until it is remembered. Learn who buyer is and concentrate on that person. Talk about anything but cars until a friendly relationship is established. Focus on customer needs rather than car.
REACTING TO CUSTOMERS	Customer controls (salesperson follows customer on lot). Surprised, deeply impacted by people making it easy or running over them.	Make guess at tough customers so they can avoid them – look for people like themselves. Need to be watched and told when the customer is a tough one.	Not afraid to approach any customer. Know how to turn reject into pipeline order. Needs help with "tough" customers but knows how to prep manager for them.	Has control of the customer throughout the sales process. Internally, can be mad and 10 minutes later recognized the need to make the person feel good.
FOLLOWING PROCESS	Get lost as soon as they leave the script. If sales (restaurant) experience they will make up answers that they don't know. Don't know a mistake unless they're told. May even misread the list price of the car.	The open approach is to know "the road to the sale", follow closely and know where they need improvement. The averse approach is to dislike processes, but like to talk to people and wheel-and-deal. Both approaches result in occasionally choosing to skip a critical process step, resulting in poor months. Coaching and computer needed to keep them on the basics.	Get "yes" answers. Move on to things that excite customers. Can skip back when needed to earlier part of Road to Sale or slow customer down who has missed a step. Able to give customers the whole process and justify it to them that they should get the best treatment. Make occasional mistakes but know how they will be resolved. Sometimes make intentional mistakes and take the grief to get a sale.	Can deviate from the road to the sale (play with the sequence) without losing the customer. Don't "windowpane" (choose based on clothes or other superficialities). If they get a block on the road to the sell, they do a turnover to keep the process moving. Realize that customers are afraid of the situation. Generally keep control of the process from beginning to end.

RESOURCE	BEGINNERS	NOVICES	WORKER	MASTERS
	No record: 0-2 yrs	5+ cars/mo: 2+ yrs	8+ cars/mo: 3+ yrs	12+ cars/mo: 5+ yrs
EXPECTA-TIONS AND CONFIDENCE	Enthusiastic but not confident. Hopeful that it will change life. Disappointed somewhere else. Like freedom, entrepreneurial spirit.	Still get excited. Confident with easy customers. Have had moments of mild success. Still hoping to make a lot of money (most people don't) and still lack confidence.	Confident. Know how to manage lean and good months. Can sell as many as they want. The only motivation is money. They sell as many as they need, then take off.	Many become manager (most people don't look for a professional sales career). Highly confident with all customers.
EMOTIONS	Up and down: idealistic, then depressed, confused bewildered, disap-pointed – can't find all they were looking for and can't make money fast enough.	Commitment results in improved emotional stability. Still cry, cuss and fume over process and people. Fear of loss of job. Need to get the minimum to stay on the job.	The only fun is the rush of getting the sale. Study manager to see what they need to do to get him to give as low a price as possible. Enjoy the idle time and talking with other salespeople.	Light-up with customer. On stage, animated, friendly. Managers must make sure the salespeople get the credit for the sales so that they will get the exhilaration that keeps them going.
LEARNING	Seek help. Many places just have a video.	Try to hone skills. Get training at dealership or at manufacturer's office. Know jargon and lingo like "upside-down" and "buried." Know the process and how to stay out of trouble.	Know parameters– if in a bind, call manager. Otherwise, works independently. "High-volume stores" just push units. Others try to juggle volume and sales-staff stability.	Look to managers and owners for techniques for dealing with people other than customers. Managers try to build a system with potential by juggling volume and sales staff stability.
AVOIDING RISK	Being embarrassed of rejected.	Losing job.	Leaving money on the table.	Hurting a relationship (e.g., by pushing too hard).

RESOURCE	BEGINNERS	NOVICES	WORKER	MASTERS
	No record: 0-2 yrs	5+ cars/mo: 2+ yrs	8+ cars/mo: 3+ yrs	12+ cars/mo: 5+ yrs
SOCIAL RESOURCES				
CUSTOMERS	Help customer any way they can but may let customer park the demo in the lot, and thereby lose control. Unaware of how customer sees them.	Testing "the Road to the Close" to see what they can omit. May "qualify" customers by leaving them alone to see how much they will do for themselves.	When they demo, they will always park the car back at the store, but only demo 20% of the time. May use shotgun approach to get as many customers as possible or try to stick to a thorough-job approach.	Prefer to do a thorough job with each customer rather than try to shotgun it. Try to develop and take pride in long-term relationships.

RESOURCE	BEGINNERS	NOVICES	WORKER	MASTERS
	No record: 0-2 yrs	5+ cars/mo: 2+ yrs	8+ cars/mo: 3+ yrs	12+ cars/mo: 5+ yrs
FELLOW SALES-people	Ready to blow up balloons and move cars around. Won't push journeymen out of the phone seat.	Find it entertaining to bring problems to manager. Learn how to play the customer-grab game and fight the domination game.	Self-motivated individuals with no teamwork incentives do whatever they can get away with to get sale. Promise things they can't do and tell customers to come back on day off. Skate (steal) deals from each other. Poison other salespeople with false advice (view them as competitors). Stack customers with 2+ appointments, pick best, burn rest. Do no housekeeping, have no loyalty. Would leave if not afraid other places not real. Don't care about store success, only own sales. High sales may get them preferred treatment. Team players are committed to dealership, maintain good working relations with others in it (e.g., know who to stroke to get cars cleaned, inspected on time). Compete by trying to sell the right way. More often chosen for leadership positions.	Realize they are there to support the sales process, rescue sales and make a profit for the store. Effectively coaches less experienced people. Performs uncompensated work, such as check ins. Compete by doing every sale the right way.
NON-SALES DEALERSHIP EMPLOYEES	Know a few names in the dealership. Unsure of how their roles fit within the dealership.	Know the dealership system – customers, managers, service, competition. Know some key people.	Know key people to stroke to get customers taken care of (e.g. cars cleaned, inspected on time). Customer bank helps to preserve loyalty to dealer.	Know interrelations between all departments (accounting, parts, etc.). Have power and use it. Feel an extension of dealership.

RESOURCE	BEGINNERS	NOVICES	WORKER	MASTERS
	No record: 0-2 yrs	5+ cars/mo: 2+ yrs	8+ cars/mo: 3+ yrs	12+ cars/mo: 5+ yrs
OTHER STAKEHOLDERS (VENDORS AND OTHER DEALERS)	Don't talk to manufacturer's rep or know other salespeople.	Don't talk to reps; may get together with salespeople from other dealerships. Go drive other cars.	May handle trades with other dealers and go drive other cars if "gearheads."	Meet with sales managers at other dealers for dealer trading. Met with manufacturer's reps for results and projections.
TIME RESOURCES (WHEN NOT IN ON "THE ROAD TO THE SALE")				
PLANNING	Not organized. Don't plan day. Need reassurance (pats on back) and direction (told right and wrong immediately to correct bad habits).	Take frequent breaks. Talk with other employees at water cooler or cigarette breaks. Focus on walk-in customers.	Have daily plans and follow up on customers. Work long hours. Fill pipeline. Use 4:3:2:1 rule of numbers to talk: demo: clos e: sell. Before 10, do yesterday's paperwork. Call appointments (make sure people ask for them). "Work pay plan" (e.g., if more commission on 6+ cars per month, give away first five).	Work smarter, but when at dealer, always working.
LONG-TERM SALES CYCLES	Today, when the customer arrives on the lot.	Today, when the customer arrives on the lot.	Months based on seasonal and product cycles. Beginning to make inconsistent use of long-term customer relationships.	Long-term. Uses order book for future deliveries. Has a system for repeat and referral customers and works it daily.
PRIOR RELATIONSHIP WITH CUSTOMER	Usually none.	Takes initiative to meet a broad range of customers.	Respected for knowledge and experience. "Owns" a bank of repeat customer relationships.	Trusted family friend.
TURNOVER	Gives to manager as soon as possible	Gives to manager as soon as possible	If they see any daylight to save a deal, they will turn it over to manager to make the sale.	Goes to manager with exact information the manager needs.
DELIVERY	Paperwork is not ready.	Paperwork is incomplete.	Well planned and organized with paperwork ready. Go through all the parts and coach the customers on survey.	A performance, fun event. Thorough delivery, respect customer time. Handle details that cause delay. No coaching needed to get 5's.

"THE ROAD TO THE SALE" (SHORT FORM)

	BEGINNERS	NOVICES	WORKER	MASTERS
RESOURCE	No record: 0-2 yrs	5+ cars/mo: 2+ yrs	8+ cars/mo: 3+ yrs	12+ cars/mo: 5+ yrs
MEET AND GREET	Enthusiastic but often forget even customers' names.	Enthusiasm varies with mood.	Rarely excited but read customers well.	Friendly. Know customers are afraid of process and managers there to support
FACT FIND	Freeze up at first customer challenge.	Get name, contact info and some, but not enough qualifying info.	Get qualifying info (purpose of car, trade, financer). Make pre-mature "time-saving" decisions.	Establish relationship and qualification. Open to any way to put a deal through.
SELECT FROM STOCK	Don't know stock.	Select from what they see.	Use or get help using computer to find car with most incentive or the best match.	Know inventory, pipeline. Use computer to match with long-term customer needs.
FEATURES AND BENEFITS	Overwhelmed by product information use as an area of security.	Have learned product information needed by buyers to close sales. Don't show thoroughly.	Well-versed in product knowledge but may be not attentive. If a customer wants to know, they will answer questions.	Have product knowledge to sell any car to interested, qualified persons. Make sure gadgets set before driving.
DEMO	Do this well but focus more on feature/ benefits than on customer needs.	Complete feature/ benefit here. Gain momentum and ask trial close questions.	Often Flip keys to save time and avoid offending people with their presence.	Drive first to demo features. Usually ride in order to control information in customer conversations.
TRIAL CLOSE	Often missed because customer left in control.	Bring customer inside to work on paperwork. Do the close completely or get manager to help.	Initiate scripted trail close often without preparation or adequate information about customer. Believe people's objections.	Insert trial closes at appropriate times during demo. Addresses objections and concerns.
SUMMARY AND CLOSE	Often fail to ask for sale. Make many mistakes in price, arithmetic.	Still awkward about asking people to buy but make fewer mistakes in quotation arithmetic.	Recaps benefits and buyer's agreements but may get stuck in objections and fail to ask for help. Know quotation cold.	Recap benefits, agreements. Get to and try to solve real objection. Uses various standard close techniques.

	BEGINNERS	**NOVICES**	**WORKER**	**MASTERS**
RESOURCE	No record: 0-2 yrs	5+ cars/mo: 2+ yrs	8+ cars/mo: 3+ yrs	12+ cars/mo: 5+ yrs
DELIVERY	Supervisor input is necessary to do paperwork.	Paperwork is incomplete.	Well planned and organized with paperwork ready. Go through all the parts and coach the customers on survey.	Make it a fun event, complete, thorough, respect for customer's time. Get all 5's on survey w/o coaching.
FOLLOW-UP	Make initial callbacks.	Make callbacks as instructed and begin to see some rewards.	Spontaneously ask customers for "excellent" survey responses and referrals.	Use well-organized system of phone follow-up including family birthdays and scheduled calls for service.

Change Consultant/Coach/Trainer

Peter Bregman is the founder of Bregman Partners, a select group of highly talented, professional coaches collected to implement large-scale organizational change. His client list includes some of the world's great organizations such as American Express, Merck, ATT, UNICEF and many others. Before profiling Peter, I spent many hours discussing business needs and principles with him. He is a consummate brainstormer who cares deeply about the existential source of change. In his words "Organizational change is a lagging indicator of personal change. When enough people in an organization begin to do things differently, the organization changes. And personal change happens not because people are told to change. Not because they are trained to change. Not even because they are motivated to change. People change because they choose to change."

One unusual quality of this profile is the emphasis in on thinking ahead to future steps. It is interesting that this quality was most important in the context of "Interface with Team Members" but also appeared in the "analyses" dimension. It's easy to think of analyses as being various series of steps leading to solutions coming out of a textbook, but master consultant-coach-trainers have also learned to think of teamwork as various series of steps leading to solutions. Master journalists know the follow-up steps to take when writing an initial story, our performance psychologist identified value conflicts ahead of time, and our rabbi "smelled the explosion points" but this profile was the first to base a whole dimension on how far ahead a person anticipates outcomes.

Peter Bregman, B.A., M.B.A., March 17, 2004

RESOURCE	BEGINNERS new graduates	NOVICES (Staff Auditors)	JOURNEYMEN (Controllers)	MASTERS (CFOs)
INTERFACE WITH CUSTOMERS	Attend meetings. Try to make contribution. Ask predefined questions, but don't know what to do with answers.	Ask follow-up questions. Can play with questions in order to get at answers.	Understand the reason behind the question and use a variety of techniques to learn the deep answers.	Invents questions at the spur of the moment. Thinks creatively to get at answers to questions not previously considered or to get answers beyond the original goal.
INTERFACE WITH TEAM MEMBERS	Do what they are told. Dependent. Think about current step.	Independent and maybe do some supervision. Know what they need to do. Think about next step.	Manage others. Think 5 steps ahead.	Lead; have a vision. Think 10 steps ahead. Are thought leaders and teach customers how to be thought leaders.
WORRY FOCUS	Getting work done.	Other people getting work done that they will need to complete their own work.	Everybody getting their work done.	What the team is doing.
ANALYSES	Do what they are told, step by step.	Know and do the steps needed to complete.	Know which set of analyses to do to meet client needs.	Create new analyses. Use unlikely analyses to discover what traditional analyses do not.
PRESENTATION	Don't present often and when they do, they use predetermined informative segments.	Do straight presentations followed by questions and answers.	Has broad understanding of context and presents more flexibly. Still uses defined set of slides but maintains interest.	Watches audience and can completely change presentation depending on their reactions and needs. Are engaging and inspiring.
SALES	Don't sell, but need to appear smart and with it.	Participate in sales and recognize opportunities to sell. Have learned to value other people's contact databases.	May help sell. Have begun creating a contact database.	Must sell. Create relationships that sell. Earn the right to deliver a proposal. Generate a pipeline of potential customers with thousands of contacts in their database.
CREATING DELIVERABLES	Work on a piece of a proposal as assigned.	Work on a variety of aspects of proposal with less direction.	Take full responsibility for deliverable.	Insures connection of deliverable with client needs.

RESOURCE	BEGINNERS new graduates	NOVICES (Staff Auditors)	JOURNEYMEN (Controllers)	MASTERS (CFOs)
LONG-RANGE COMMITMENT	To task.	To job.	To methodology.	To results with supportive means. Have a broader understanding of methodology that allows them to make matches to client needs.
METHODOLOGY QUALITY	Does not know difference between good and bad methodology.	Applies standard methodology.	Chooses from various methodological options.	Understands effective application of methodology.
SOURCES	Other team members.	Does a little research.	Is creative within field.	Branches out across many fields.
PERCEPTION OF CLIENT	Sits quietly. Sees client as "God."	Sees client as customer.	Sees client as collaborator.	Sees client as co-creator. Also, sees beyond client to larger issues.
FOCUS	Own actions with client	Problem.	Client.	Connecting problem with client and client's company to other similar companies.
GENERAL	Do assignments.	Take responsibility for tasks.	Manages tasks and keeps projects on schedule.	Creates the most effective application of methodology for the client.

Communication

These profiles of communication were derived primarily from concepts and dimension names based on DeVito, J. A. (2004). *The Interpersonal Communication Book, 10th Edition.* Boston: Pearson Education. The developmental sequences emerged from discussions in CJ 1130 at the Armstrong Atlantic State University, Liberty Campus in Fall of 2005. There are three parts of the profile. The first set of dimensions is the developmental model; the second set are universals of communication; and the third are specific adaptations.

The Developmental Model. A meme is an evolving cultural practice that we acquire directly through imitation of others or indirectly through inference from artifacts left by others. Memes are as separate from the individuals who replicate them as bacteria and viruses are. They have life cycles involving birth, growth and death. Their lives last from minutes to millennia. They compete with each other for resources and this competition affects their cycles of growth and decline. In the following diagrams the cells are memes and they compete with other memes in the same row. Any meme from one row may coexist with any meme from any other row. Like genes, each combination of memes results in a different "species" of behavior. The seventeen dimensions of communication universals and adaptations can combine to make nearly 18 billion different communication patterns. But only 68 concepts are needed to have a thorough understanding of each pattern. The developmental model is much more than a powerful organizing device. It also contains testable predictions about what happens over time with competing memes (those in the same row) and what factors control their prevalence at any moment in time.

The communication universals are organized by the basic questions: who, what, when, where, how, which and why. Such questions are not only mnemonic devices for organizing memes; they are fundamental and universal principles for organizing all human activities.

The adaptations are organized from inside out, from most to least specific to the person doing the communicating.

1. Universals of Communication
(for verbal and nonverbal communication including touch, sound & silence, and visual cues from gestures, faces, eye contact, artifacts, spatial distance and territory)

QUESTION	DIMENSION	DEFAULT	PIONEERING	TRANSITIONAL	DOMINANT
WHO	RELATIONSHIP DYADS	Individualistic culture	Dyadic primacy	Dyadic coalitions	Dyadic consciousness and collective culture
WHAT	TOPICS	Hi context (concrete) cultures	Content, expertise, direct	Relationship, empathy, indirect	Lo context (abstract) cultures
WHEN	CONVERSATION PROCESS	Open	Feed forward and disclaimers	Business	Feedback and close
	TIME ORIENTATION	Diffused cultures		Displaced cultures	Combined time orientations
WHERE	FORMS	Contact	Face-to-face	Phone	Computer
HOW	DIRECTION	Complementary (Hi power distance cultures). Poor condition for disclosure. Legitimized owners of rewards and punishment.	Prestige power	Expert and informational power	Symmetrical (Lo power distance cultures; good condition for disclosure). Those lacking power are empowered.
	UNCERTAINTY AND CHANGE	Allness (unaware of speaker-listener differences)	Discover differences	Reduce uncertainty	Prepare and Adjust
WHICH	ORGANIZATION	Haphazard	Rules: Proximity, similarity, temporal contiguity, contrast. (Misuse causes attribution errors)	Schemata: Frequent patterns such as implicit personality theories and attributions (Misuse causes prejudices)	Scripts: Expected sequences of events. Politeness and inclusiveness (Misuse causes self-fulfilling prophecies)
WHY	PURPOSES	Attract attention or play	Influence and dominate (masculine cultures; poor reason for disclosure).	Relate (feminine cultures)	Learn or help (good reasons for disclosure)

Adaptations
(from inner to outer settings)

DIMENSION	DEFAULT	PIONEERING	TRANSITIONAL	DOMINANT
SELF-CONCEPT	Feedback from significant others	Comparisons with peers	Absorb cultural teachings (from media, church or organizations, company, or profession)	Make accurate self-evaluations
ATTRIBUTION ISSUES	Self serving bias (internal to self for positive, external for negative outcomes)	Fundamental attribution error (internal to others for any outcome)	Over-attribution (generalize from one or two traits)	Accurate attributions (low similarity over people, time and places plus high controllability implies internal causes)
PREDICTIONS	Unrealistic expectations from neglecting background (esp. competing tasks)	Attend to details of background (esp. skills of others shown by speedy performance and unexpected actions)	Evaluate prior experiences	Imagine alternative scenarios
ACTIVE LISTENING AND SHARING	Receive the verbal and nonverbal message	Understand and remember the speaker's viewpoint using active listening	Evaluate according to the needs and rights of self and speaker plus correct attributions and facts	Respond with empathy, challenge or agreement while being true, relevant and brief
COMMUNICATION APPREHENSION	Monocentric communication (unaware of need for communication)	Unrealistic expectation	Familiarize self with situation	Practice to the point of over-learning the material to be communicated and visualize success
ASSERTIVENESS AND AUTONOMY	Mono-centrism (unaware of value of differences)	Unassertively acquiesce to other member of dyad or avoid the issue	Aggressively state one's own position	Assert own position with consideration of the needs and rights of listeners

DIMENSION	DEFAULT	PIONEERING	TRANSITIONAL	DOMINANT
RELATIONSHIPS	Contact (perceptual, then interactional; attachments based on convenience or shared living space; eros loves).	Involvement (testing or intensifying; emotional attachments and defined roles; ludus and mania loves).	Intimacy (personally or publicly shared; inertial attachments; storge loves).	Generativity (family or work; responsibility attachments; pragma loves). Or after life responsibilities completed. Integrity (life affirming or wisdom; commitments based on multi-generational traditions; agape love).
TRADITION CONSCIOUSNESS (INDIVIDUALS AS WELL AS CULTURES)	Disconfirming (allness or lacking awareness of differences)	Honeymoon (interest)	"Difference shock" crisis, then recovery disparaging or rejecting then sensitive but taking for granted)	Adjust and Affirm (learn and teach survival skills including language and affirm value of own and other traditions)

Data Analysts

This overview of the careers of data analysts is a work in process. Additional master analysts will be consulted for revisions. Though data analysis may seem like an arcane field open to the rare numbers nerd, there are some remarkable similarities to seemingly more accessible careers. The Collaboration and Competition dimension provides two interesting examples. The analyst "Novice" actually parallels the auto sales "Worker" in the dimension concerning Fellow Salespeople. Both detail a number of "dirty tricks" strategies. Placing them among "Novice" analysts may be wishful thinking that the "dirty tricks" approach will be a burnout strategy among data analysts. If that is actually the case, Collaboration and Competition among data analysts will more closely resemble the Ensemble dimension in music. The Singer characterized the "Novice" approach to Ensemble as a "Cat fight" and described "Workers" as having a "comfortable competition." Both auto sales managers consulted for the auto sales profile raised the important question of what leadership and reward strategies allow the "dirty tricks" approach to endure. This question is a well-known corollary of orient-occident cultural differences that have been found to affect economic success (e.g., Toyota's immanent replacement of General Motors as world's largest auto maker).

A page on Work Relationship examines the rubrics on collaborative work groups used by nearly half of the masters profiled and their connections to the research literature on work groups and teams. Though still in process, this page already offers some interesting insights into this process, revealing how the current literature both enhances and could be enhanced by the Changing Wisdoms version of developmental profiling.

	BEGIN	EXPLORE	SUSTAIN	INSPIRE

DESCRIPTION OF LEVEL	Agree to try an activity but make no long-term commitment to it.	Have commitment but are deficient in training or experience.	Usually Derive at least part of their income from the activity (alternative sources of income sometimes preclude an interest in remuneration on the part of people who have become quite adept at an activity).	Contribute to the activity by writing about it, leaving behind collectable artifacts, or supervising, educating or acting as models for others.
GOAL	Have specific need in mind but unaware of how to answer it.	Summarize data related to problem	Discover similarities and differences in data	Discover patterns and changes that are surprising and useful.
TIME FRAME	Do not have a schedule	Make an arbitrary schedule without awareness of speed-accuracy tradeoff	Accept user schedule by prioritizing project elements	Negotiate schedule with users in order to clarify consequences
COMPLEXITY REDUCTION	Unaware of volume of data	Make arbitrary choices of parts of data	Copy available examples (e.g. census)	Create new holistic models based on current and potential problem requirements
VARIABLE SIMPLIFICATION	Display raw data	Use conventional divisions of continuous variables	Use statistically balanced divisions of continuous variables	Adapt statistically balanced divisions to user conventions or find a convenient model for simplifying data
DATA PREVIEW	Unaware of need	Identify sources	Identify missing data	Identify data convergences that may be useful in corroborating and checking results.
DATA ENTRY ISSUES	Unaware of issues	Is it accurate?	How timely is it? How often is it deleted or changed? How is it checked? Which updates involve changing data and which adding new records?	Identify costs and benefits of data entry completeness, timeliness, and accuracy
ANALYSIS TECHNIQUES	Haphazard totals	Descriptive statistics	Inferential statistics	Mathematical models

REVIEW TECHNIQUES	Haphazard reading	Seek errors and who to blame	Fix the problem, not the blame	Create and seek to continuously improve systems that result in the cleanest possible outcomes
ROLES	Unaware of differences	Assume role (initiator, editor, analyst) without awareness of complexity	Try to stick to their most familiar role	Comfortably switch between roles as needed by the problem and situation
COLLABORATION AND COMPETITION	Wait for invitation	Will distort data and the processes used in analysis to enhance self (e.g. may seek to discredit data to save face or pretend to act as editor and send off incomplete analyses to discredit a collaborator).	Compete with other analysts only to see who can make the best product.	Engage in comfortable, open, fun collaboration to create products that make lasting contributions to a community
ACCESS TO RESULTS	Supervisor	Seek to control access for their own benefit	Find ways to preserve personal privacy while providing for professional review and institutional welfare	Seek to discover how best to maximize the positive and minimize the negative consequences for all stakeholders

Developmental Research

This following profile was tested using multiple raters and 962 articles written from 1930 - 1992 (see Dirlam, Gamble, and Lloyd, 2003 or Dirlam, 2017 for details).

DIMENSIONS	DEFAULT	TRANSITIONAL	PIONEERING
DEPENDENT VARIABLES What was measured in the study?	*Limited Behaviors* Easily counted, or *Categorized* Coded free behavior	Summed or Enumerated Standardized tests or sums of ratings of loosely connected items)	*Categorized and Other* coded free behavior combined with a second dependent variable
DATA ANALYSIS What kind of statistics were used?	*Descriptive Statistics* like counts, means or correlations		*Difference Statistics* t-tests, ANOVAs non-parametric difference tests or modeling
DESIGNS How often were comparable measurements taken?	*One Session Per Task*	*Micro-longitudinal* Repeated measurements taken weeks apart	*Longitudinal* Repeated measurements taken years apart

AGE Was it used to measure time or to assign people to groups?	Single Age Group	Dependent Variable Using age as a measure of how long it takes to develop	Multiple Age Groups
SOCIAL CONTEXT Who was present with the people being studied?	Significant Other Alone or With Test		Test Alone or With Experimenter
LOCATION Where was the study done?	Unspecified	School, Home, Other, Lab, or Multiple	
BACKGROUND How many fields used as sources?	Interdisciplinary		Disciplinary Only one
APPLICATIONS Who benefited from the study?	Researchers Only		Other Professionals or individuals

Early Childhood Teacher

Terrie Oliver has taught at the early childhood level for two decades. She has been Coordinator and Department Head of the Early Childhood Program at Savannah Technical College and is now the Director of Instruction at STC's Liberty Campus. This profile was created as part of a project to develop a system of teaching rubrics to replace conventional course evaluations at the college.

Terrie Oliver, M.Ed. June 22, 2006

RESOURCE	BEGINNING	EXPLORATIONS	WORKING	CREATING
RELATION TO OTHER TEACHERS	Questions all the time or try to hide their lack of knowledge by not asking questions.	Observe teachers in action and willing to accept advice, but need to be reminded not to lose their own point of view	Doing their job	Coordinate comfortably with other teachers as allies in the process of stimulating learning.
SOURCE OF IDEAS	Textbook and institutional instructions	Reading about education in sources independent of the course they are teaching	Need an external stimulus to do something new	Both on campus and during their daily lives spend time thinking of new ways to inspire learning,

RESOURCE	BEGINNING	EXPLORATIONS	WORKING	CREATING
STUDENT CHARACTERISTICS	Fail to understand the special approach needed to teach adults, who have incomes, families and personal assets.	Seek out educational approaches that are unique to teaching adults.	Discriminate between various philosophical approaches to education and have adopted style that works in their situation	See all philosophical approaches to education as beginning and ending in the real world regardless of situation
MOTIVATION	Don't know where to start	Know how they want to do it.	So well-practiced that they risk losing the challenge	Creativity maintains their excitement
METHODS	Lack confidence in their knowledge and ability to express themselves (may read from text).	Lean a lot on text and handouts because they are still not comfortable with themselves as presenters	Confident that the way they are doing it is the right way but may miss opportunities to improve methods.	Teach by mixing a variety of techniques such as questions and hands-on learning as well as mini lectures
STUDENT ATTENTION	Spend much time writing on board	Use alternatives such as overheads or PowerPoint presentations so that they can keep in face-to-face contact with students	Keep students' attention on themselves as the source of learning in the classroom.	Design situations so that they learn with students—at a higher level, but nevertheless modeling learning as well as stimulating it
VIEW OF ROLE	Extras – just want to do what is expected of them	Actors – see themselves as on-stage, playing a role	Directors– see themselves as coordinating the learning of students in the class	Producers – see themselves as setting the stage and making sure all the resources necessary for learning to happen are available.

Financial Executive

Gordon Matthews was Chief Financial Officer of Chatham Steel, a company with over 300 employees, for 15 years. He came into the interview with such a thorough grasp of the process that he was the first person to give his profile systematically in rows from beginning to end during the interview. When I remarked on this Gordon replied that a friend once told him he should will his body to science because, when his final autopsy was done, they would find a matrix in his brain. I have since done joint profiling interviews with Gordon and been impressed with his ability not only to conduct interviews without imposing leading questions but also to independently create functional profiles from the results.

Financial Executive, Gordon K. Matthews, MBA, CPA, December 15, 2003

RESOURCE	BEGINNERS	NOVICES	JOURNEYMEN	MASTERS
	new graduates	(Staff Auditors)	(Controllers)	(Chief Financial Officers)
ECONOMIC RESOURCES				
USE OF ACCOUNTING KNOWLEDGE	Have concepts of how to account for an event.	Examine the history of events in question.	Use accounting to describe and record transactions.	Structure events knowing how they will be reported (buy and sell companies and buildings that will produce favorable accounting reports).
DIAGNOSTIC USE OF ACCOUNTING VALUES	Just a number.	Can determine the origin and accuracy of the number.	Know the number's source, reliability and relationship to other numbers.	Automatically recognize significance and action needed.
COST CONTROL	Mostly unaware	Ask questions with the benefit of hindsight.	Control costs by preventing things (keep people from spending money; ask where we can get the cheapest products & services).	Eliminate non-value added work (i.e. the need for products or services by making problems go away – e.g. improve safety to lower worker's comp costs).
ASSET MANAGEMENT	Unaware of asset management significance.	Examines asset problems such as aging.	Manage assets using ratios for cash flow.	Evaluate investments in new ventures.
COGNITIVE AND EMOTIONAL RESOURCES				
JOB FOCUS	Current assigned task.	Evaluating the accuracy of reports.	Reporting on the financial operations of business.	Whole business strategy in its competitive environment.
RISK FOCUS	Unaware of personal risk.	Overlooking errors or misstatements.	Failing to protect assets or produce correct reports.	Not fully disclosing facts – willing to resign to preserve integrity.
EMOTIONAL STRESS	Passing exams.	Meeting travel and schedule demands.	Meeting deadlines, knowing what can go wrong, managing details with limited resources.	Keeping promises made to those who have invested money in the enterprise.
USE OF INNOVATIVE BUSINESS CONCEPTS	Learn concepts without making applications.	Ask whether corporation is using the concepts.	Initiate – put new business concepts to work exactly as laid out (e.g., accepts health policies of HMO).	Improve and innovate on the concept (e.g., add discounts for non-smokers, premiums for motorcyclists).
USE OF COMPUTER	Know terminology. Write simple programs.	Observe how software works for others.	Use software extensively to get daily work done.	Integrate, replace and upgrade software. Guide transitions

RESOURCE	BEGINNERS	NOVICES	JOURNEYMEN	MASTERS
SOCIAL RESOURCES – RELATIONS WITH OTHERS				
CEOs	Read about them in news	Deference as if in awe.	Parent-child relationship; respond with little questioning.	Close to equal with influence on most matters.
PROFIT CENTER MANAGERS	No contact	Know names and analyze their results.	Support them as their subordinates.	Equal or higher in the corporate hierarchy. Advise on strategic direction.
SUPERVISED STAFF	Have nobody working for them.	Supervise beginning auditors.	Supervise transaction processing people.	Have Controller, Treasurer, MIS Manager, Insurance, HR people reporting to them.
FINANCIAL REPORTING PROCESSES	Text book.	Examine business activities and make suggestions to improve them.	Produce periodic financial reports in response to needs of business.	Create new ways to communicate so people can solve problems better (e.g., 10 key numbers to signal corporate performance).
BANK RELATIONSHIPS	Think of bank as place, not as relationships.	View as legal obligation.	Care for and strengthen relationships. Keep them informed (e.g., never surprise their banker).	Expand relationships (e.g., acquires new bankers).
CUSTOMER CREDIT	Not mentioned in classes.	Examine and question decisions.	Make credit decisions on difficult customers.	Do portfolio management creating a mix of risks related to pricing (risk/return).
STOCKHOLDERS	Might own a few shares as an investor or in 401k.	Know about rights of shareholders and what must be done to comply with rules.	Generate and supply information that stockholders need, and FCC/SEC require.	Communicate directly with key shareholders and provides perspective and information about future direction.
VENDORS	Uninvolved	Complete credit applications for suppliers.	Provide financial information and communicate on payment practices.	Can maintain credit availability even in illiquid, stressful situations; innovate.

Harpist

Dean Owens is retired from both 25 years as the Savannah Symphony Harpist and as a local architect. He studied harp with several of the great teachers of the world in Paris and at Julliard. He still teaches students in Savannah including Folk Traditions Store founder and interviewer, David Dirlam.

Harpist, Dean Owens 12-Aug-03

DIMENSION	BEGINNERS	NOVICES	JOURNEYMEN	MASTERS
FOCUS	Unsure of what they want or what they have to give up to get it.	Seek some basis to move ahead. Learning about instrument and about selves in relation to it.	Mind and spirit are focused well.	Make discoveries while performing pieces that can be applied in other pieces.
RHYTHM	Subordinate rhythm to playing the right note.	Relate rhythm to pulse.	Use mechanical / body images for rhythm (swinging a string with weight on it).	Turn technical problems into stylistic advantages.
ENSEMBLE	Work on own part.	Work out where the line in the score fits with others.	Rehearse in order to perform part responsibly.	Motivated by something inside to create and recreate each performance.
AUDIENCE RELATIONSHIP	Fearful.	Try to impress captive audiences.	Focus on own repertoire (if audience doesn't like it, pretend they are not there).	Belong to the audience from entrance to exit. Refrain from alienating.
COMMUNITY RELATIONSHIP	Show an outsider's interest.	Focus on teacher.	Worry about passing a test to get a job. Need to be a member of the musician union.	Avoid musician unions as much as possible. Use music for communication, not debate or argument.
CULTURE RELATIONSHIP	Appreciate but are not part of performance culture.	Often use expression that is at odds with the mood of the piece.	Interpret according to own culture. Communicate as much of the composers' experience as they understand.	Have a cultural sense of what a piece is supposed to sound like. See enough parallel experiences between selves, composers, and audience to find a message to communicate.

Health Researcher

All health researchers, whether in university centers or in the private sector, believe they are engaged in truth-seeking and hope their efforts improve people's health. Epidemiology is a new science that has not firmly established its initial paradigm. The distinction between novice, journeyman and master is similar to the distinction between technician, engineer and scientist. The technician repeatedly applies a set of techniques to the same sort of problem; the engineer applies known methods to create something new; the scientist seeks new methods or to apply methods in new and improved ways.

There is a bias in both university researchers and private sector researchers. Most people understand that private sector health researchers are biased toward the products or services of their companies. It is less well known that university researchers serve the biases of the granting organizations. Funding organizations and self-sustaining research organizations within universities stand to be embarrassed by questions about methods that were previously funded or results that were previously obtained. Therefore, university researchers are biased toward previously funded work.

Health research has the somewhat peculiar problem of turning expert clinical practitioners into researchers. Sometimes this results in insufficient or outdated knowledge of research methods that are reiterated over careers. This type of historically outdated research has been excluded from the journeymen category, allowing the whole trajectory to focus on those who potentially will become master scientists.

Also, see the comments on wisdom profiling theory below the profile.

health researcher, Carl V. Philips, Ph.D. June 24 – October 7, 2003

	BEGINNERS	*NOVICES*	*WORKER*	*MASTERS*
SOCIETAL NEEDS FOR RESEARCH	Aware of need for field, often have specific research or policy questions in mind, but unaware of how to answer them.	Mechanically apply methods of the field while often forgetting the questions that motivated their interest as beginners.	Become immersed in problems of a narrow specialty and lose perspective on how much of society's resources should be devoted to it.	Seek solutions to societal needs with awareness of the costs and benefits.
SCIENTIFIC LITERATURE	Unaware of the massiveness of the literature related to their data.	Read widely but sporadically. Do a mechanical or ritualistic search through a topic, but don't think through the implications.	Read within their specialty and know a variety of tools for dealing with it, but fail to see repeated mistakes and thus, often confuse the existence of many papers with substantial knowledge.	Seek to improve the imperfect tools of the field by reading for methodology rather than content. Read in various disciplines and problem areas to find methods that apply to analogous problems.

	BEGINNERS	*NOVICES*	*WORKER*	*MASTERS*
FUNDING SOURCES	Still open to a variety of sources for their own funding.	Deal with the problem of having to sign on to a source of funding to keep going. Realize their dependence on a principal investigator.	Are adept at getting funding, but do not challenge the source of their funds.	Seek to improve knowledge regardless of funding source. Have found novel ways to deal with the lack of funding sources for basic questions.
PRIOR RESULTS	Have no prior results	Continue to use methods already learned.	Do not challenge their own prior results.	Seek to improve upon their own prior understandings even if it means rejecting a conclusion that they previously published.
METHODS	Want to answer questions from life experiences.	Apply methods learned in classes to problems haphazardly, often using methods inappropriate for the problem.	Apply established methods to new problems.	Try to develop new methods to improve knowledge.
DATA TREATMENT	Gather data and follow instructions.	Take care in making charts and counts. Apply a limited variety of tests by rote.	Believe that data speaks for itself. Run the data through statistical packages without questioning conclusions.	Return to the data many times to improve analysis
RESPONSES TO STUDY LIMITATIONS	Unaware of limitations	Have a global understanding that limitations exist.	Identify limitations but do little to overcome them.	Recognize limitations and seek to improve studies.
SCIENTIFIC AUDIENCE	Write for advisors.	Write to the "world" without understand the individual interests within their audience.	Writes to policy makers within their field.	Write to present and future scientists.

History Tour Guide

Not everybody understands the meaning of the term "Historical Interpreter." After you read the profile below, you will understand how that term is better than "Tour Guide." Our term, "History Tour Guide," is a compromise designed to convey both the understandability of Tour Guide" and the professionalism of "Historical Interpreter." Our master History Tour Guide is deeply committed to discovering the big picture of people in relation to each other and to their surroundings. Her Master's Thesis was on prejudice and discrimination. She has been a guide at San Francisco's Museum of Modern Art, at Alcatraz Island in the

Golden Gate National Recreation Area, and in the Savannah, Georgia Historical Areas. She chooses guide assignments to maximize her opportunity to learn.

History Tour Guide, Sonja Williams November 12, 2003

	BEGINNERS	NOVICES	JOURNEYMEN	MASTERS
SOURCE MATERIAL	Always have note cards containing specific facts.	Focus on note cards. Begin to ask how audience is reacting. Look for clues to interests.	Change structure of tours according to how people react. Add new stories or locations to fine tune and perfect their message.	Adjust the physical path or the stories within the tour to each participant and situations.
MESSAGE	Frustrated with fact accumulation but not motivated to get unstuck.	Fact oriented but gradually gain confidence to deviate from tour path.	Use the physical environment to help people in general to connect emotionally to the situation and to see themselves in it.	Get enough information about each person in the audience to create for them unique connections to the site and historical people.
AUDIENCE CLUES SOUGHT	Only react to distractions from the audience.	Look for laughter.	Look for laughter, audience focus and story following. Notice groups within the group. Ask if hungry, tired, or knowledge about site. Use answers to help audience connect (e.g., talk food to hungry people).	Start a tour by learning about audience. Look for general needs, people on fringes or who are especially interested. Look for connections to each person's life.
RELATION TO OTHER GUIDES	Crab about jerks and irritations.	Crab, but begin to ask why and put events into a context that leads to improvement.	Crab and question but offer explanations and insight.	Listen. Work on expanding their knowledge. Recount something especially good that happened.
LEARNING	Accumulate facts by reading books on the site.	Read and seek information from other guides.	Start to get information from audience about the site, the stories or about the conditions of the times.	Constantly strive to put information into context. Continue to expand knowledge to larger and larger spheres of the world, about how events created the historical person. Begin new assignments with the context rather than details.
THE SHOW	They are the show. Focus on audience looking at and judging them. Freeze, get embarrassed at own failures.	In transition from self to story as the show. Still excruciatingly aware that people are looking at and judging them, but this feeling is beginning to get competition from their focus on their skills.	The story is the show. These guides "become" the people in the story. Their only self-focus is on keeping track of their bookmarks—where in the story they are.	The story is the show, but masters are much more fluid at including the audience in the story. Occasionally become aware that people are looking at them but use personal lapses to augment the situation.

Journalist

Tim Rutherford is Managing Editor of the Savannah Morning News' Coastal publications. With decades of journalism experience combined with graduate work in folk lore, he is well known in Savannah environs for getting special interest stories accurate, easily read and delivered to the readers who would be most interested in them.

Tim expressed a need to split the "Master" category. Even the dictionary lists two meanings as (1) an artist or a performer of great and exemplary skill and (2) a worker qualified to teach apprentices and carry on the craft independently. The second definition is the one used here, but that leaves no place for a person who fits the first but is not a good mentor. Poor mentoring by someone who has mastered all other aspects of an activity is sometimes due to poor learning. For example, Y. L. Peretz wrote a classic Yiddish story about a student who knew how to learn by observing more carefully than anyone else. But poor mentoring from a person who is otherwise a master can occur by giving "fish" to students rather than "fishing rods" (give a man a fish and he eats for a day; teach him to fish and he eats for a lifetime). Tim emphasized that a mentoring master does not just assign stories but helps junior journalists develop their own resources.

A common journalistic distinction is between news and features. Though both inform and entertain and both have authoritative sources, news emphasizes information and features emphasize entertainment. It is possible to find journeymen in one category or the other, but masters entertain in their news stories and inform in their feature articles.

With the faculty of the Campus School of the State University College at Plattsburgh NY, during the 1970s I did research on children's story telling that was based on the work of James Moffett and used by the State Education Department to score their High School Regents' Tests in Writing. A tribute to Tim's thoroughness was that he not only regenerated many aspects of our coding system but added to it both significant developmental advances and several dimensions that applied to journalism. An interesting comparison with our studies of children concerned the Perspective dimension. Beginning story tellers would sometimes tell a story from another person's point of view, but in doing so they would lose their own. It was a definite sign of maturity when they could use more than one point of view in the same story. We assumed that this step was a precursor to being able to write generalized, abstract or objective discourse. But the "Industry Standards" dimension reveals that the skill to automatically consider multiple perspectives is one that requires the extensive practice that only masters obtain.

journalist, Tim Rutherford, Jun25, 2003

	BEGINNERS	*NOVICES*	*JOURNEYMEN*	*MASTERS*
KNOWLEDGE BASE	Read uncritically	News junkies and critical readers but often too easily satisfied with their own knowledge.	Know enough about many subjects to know when they don't know enough.	Develop unconventional sources.

	BEGINNERS	*NOVICES*	*JOURNEYMEN*	*MASTERS*
WORD USAGE	Idiosyncratic. Make up phrases to replace appropriate jargon.	Uncritical. May use jargon from specific disciplines inappropriately.	Accurate. Correctly use jargon appropriate to the subject.	Minimalize writing by crafting tight sentences with meaningful words. Know what words to omit. Choose words on the basis of life, color and information.
SENTENCE STYLE	Unaware of specialized journalistic style rules.	Know some journalistic style rules.	Recognize when they need to look up a style rule.	Have so automated journalistic style rules that their habit of editing may interfere with reading (e.g. they may edit menus when eating out).
TIME FRAME	Overloaded with factual details. They tell stories linearly from the utter beginning.	Omit useless details and transcend linear organization.	Experiment with literary devices, such as endings connected to beginnings. Know but not limited to the general-to-specific or "funnel" format.	Organize the story according to how it relates to readers.
PERSPECTIVE	Lots of first person. They always tell their own story.	Can tell a story without first person.	Have developed their own voice or style that allows the subject to tell the story.	Critical of self and of common styles.
DAILY ORGANIZATION	Do not understand newspaper deadlines.	Organized enough to know how long it takes them to complete a story.	Daily organization has been practiced enough to become automatic.	Organize days according to long-range plans.
STORY PROGRESSION	Unaware of the need to follow-up published stories.	Need instruction to know when and how to follow up published stories.	Learn how to follow up from particular published stories by brainstorming with colleagues.	Know the follow-up steps to take when writing an initial story.
NEWS CUSTOMER	Do not consider audience in choosing stories (e.g. choose an exposé or some-body they like).	Recognize a good story 60-70% of the time.	Almost always recognize a good story.	Understand the priorities, values and attitudes of their reader community.

	BEGINNERS	NOVICES	JOURNEYMEN	MASTERS
NEWS PRIORITIES	Show they lack a sense of news customer by focusing on novelty rather than impact	Can prioritize 2 or 3 subjects according to timeliness, impact (number of potential readers) and notoriety.	Have developed good resources for gathering information: people to go to and sources such as books, the net, community, and newspaper libraries).	Develop multiple sources for stories that inspire, motivate and inform
INDUSTRY STANDARDS	Unaware of objectivity as an issue.	Know the need for objectivity, but not well enough to avoid temptations to participate in their stories.	Know and abide by the journalistic standard of objectivity.	Achieve above-standard objectivity by considering the perspective of all stakeholders.

Library Users

James Burch has been a librarian for over thirteen years. After working in a number of collegiate positions he is now the Director of Library Services at Savannah Technical College. Jim has seen dramatic changes in the technology of library use. Although he does not view the threat of technology eliminating the use of "real" books as likely, Jim forecasts the use of libraries without being in the library. This profile was created as part of a research assessment for a test of a multiple intelligences approach to training beginning library users.

Librarian James Burch with transcription by Alexa Schider, March 24, 2006

RESOURCE	BEGINNERS	NOVICES	JOURNEYMEN	MASTERS
PHYSICAL	Do not recognize building or difference from bookstore	Know location of library in their institution or neighborhood	Know and use best library in region	Know and use best libraries on the continent
EMOTIONAL	Often highly intimidated	Industrious (do a job)	Intellectually curious	Caring about users and information resources
DECORUM	Out of balance (overly quiet or acting goofy)	Still need to be shushed	Aware of other users need to concentrate	Aware of multiple needs of other users
PURPOSE	Not to use but get something particular	Need to pass a class	Scholarly	Strengthen the community of users. Bring students in.

KNOWLEDGE OF ORGANIZATION	No comprehension of how arranged	Need to be directed to where they have an interest	Know and use the major sections of the library	Know what's missing
RELATION TO STAFF	Look for librarian to help and leave happy	Get help 25% of the time	Seek help only from the most professional staff	A colleague of librarian
RELATION TO SPECIAL LIBRARY EVENTS	Unaware	Attend with a more experienced user	Aware and keep track of possible events to attend	Suggest and help organize events
SELECTION OF MEDIA	Need direction on all levels (i.e. log on, search online or library books)	Uses internet to the exclusion of books	Seek best source regardless of media	Add media from outside library relevant to own discipline
SEARCH	Do not know how to log on	Inflexible use of search words	Creative, goal-oriented adaptation of search words in favorite database	Searches multiple databases and indexes
SELECTING MATERIALS FOR FURTHER STUDY	Start from a suggestion from a more experienced user	Use superficial qualities (length of article)	Use one database (Galileo) proficiently	Interested in improving the collection
USE OF MATERIALS	Haphazard and superficial (pictures and titles)	Read parts	Take notes and synthesize information	Test self on knowledge gained
SOURCES OF FIELD KNOWLEDGE	None	Textbook	Latest literature, especially periodicals. Know key contributors.	A contributor. Direct contact with key contributors.

Love

The love project was undertaken by Gordon Matthews, Sonia Williams, and David Dirlam in the early months of 2004 as an attempt to stimulate the growth of an "us" generation. People plan their retirement, healthcare, and vacations. But their most important relationships drift haphazardly into the future. We interviewed five couples using the standard memetic profiling approach and merged the results into a single profile. These are not all the memes of love, but they provide a rich basis for examining and growing love in people's lives.

	BEGINNING	*EARLY COMMITMENT*	*ESTABLISHED*	*INSPIRING*
ACCEPT				
ACCEPTANCE OF WHO YOU ARE	Test each other out and admit or reveal in a kind of sequential way more and more about themselves and they are constantly checking that they are being accepted at these various revelations	Look for outward expressions of the others' acceptance -- e.g. ceremony or moving in together.	Looking for a mutual nurturing of each others' uniqueness and separateness. Looking for mutual work on it.	Celebrate the acceptance and revel in it.
COMPETENCE	Don't know they don't know. Unconsciously incompetent.	Know they don't know -- awakened. Consciously incompetent.	Know, but don't always use. Consciously competent.	Know and live it. Unconsciously competent.
PRESERVING OR RELEASE	Preserve for self-gratification, release from boredom or hostility	Preserve out of habit, release out of fatigue	Preserve because it makes sense, release out of moral incompatibility or vital necessity	Preserve or release in order to maximize the meaning of life for both
SHARING OF PURPOSE, EXPERIENCES & COMPANIONSHIP	Getting (e.g., get your date drunk)	Transaction (give to get)	trusting in the benefit	abundance
EXPECTATION VS. ACCEPTANCE	Expect almost always	Mostly expect	Mostly accept	Accept almost always.
ATTRACT				
ATTRACTION	Common physical, mental or moral interests	Joint fun	Practical	Unifying/completing
ATTRACTION	Wait, get lucky, go out	Look for deeper qualities (beyond physical)	Keep self in good condition/nurture others	Cultivate when occurs, non-sexually
SPIRITS	Immediate satisfaction	#N/A	#N/A	Bliss
CARE				
ANTICIPATING OTHERS' NEEDS	Reactive	Anticipate conventional needs by following conventions	Anticipate practical needs out of care and experience	Anticipate meaning-of-life needs from knowledge of partner and of humanity.
OTHER AWARENESS	Clueless. In-your-face.	Discovery in process.	Knows other's places on the totem pole & accepts	Spiritual/intuitive connection

	BEGINNING	*EARLY COMMITMENT*	*ESTABLISHED*	*INSPIRING*
THE OTHER	Fills a role from developmental history (automatic, unaware). Like father/mother.	#N/A	#N/A	Full acceptance as they are & are not. Not expecting other to meet their needs.
CHILDREN				
MAJOR ISSUES: CHILDREN, RELIGION, POLITICS, ETHICS	Differences ignored	Recognize relative importance of major issues. Polarization of a major life goal is a threat.	Integrate incompatibility. Shift your own values toward the center. If give up too much of self it could lead to regret later in life.	Move to center of polarized major issue, but could resent or rejoice in movement.
RAISING CHILDREN	Mutual discovery through dispassionate discussion of major questions. Do you want them? How important is it - vital or an option? How were you raised? What sort of discipline do you want to use?	Develop a family philosophy, but constantly tweaking it. Were we on the right track? Can we admit that we made a mistake?	Child rearing worked out.	Take on sage role, give advice. Decide about family continuity and closeness.
UNRECOGNIZED SIBLING	In large families, there is often one child who desires to be unique, singular, recognized because they have never been allowed to stand out.	The unrecognized child reacts against family patter and develops a contrary pattern.	Reconciliation comes from discovery of need to acknowledge they are still part of the family.	Become much more accepting and tolerant. Don't repeat event that left them unrecognized and make sure their families avoid the problem (no children or 2 children or make sure each is an individual).
COMMUNICATE				
CONFLICT MANAGEMENT	Conflict puts relationship in precarious, threatening position. Unknown hot buttons appear.	Develop rules of engagement such as don't bring up past arguments, don't call names and fight fairly.	Conflicts don't result in arguments. No more yelling, storming, hanging up the phone. Deal with the issue, not the person.	Respect the differences as something that makes the other person unique.
COMMUNICATION	Say what they think they are supposed to say	Speak the truth, but not all of it	Trust partner with their feelings	Discover creative ways to communicate

	BEGINNING	*EARLY COMMITMENT*	*ESTABLISHED*	*INSPIRING*
COMMUNICATION	Not considered important but focuses on information concerning likes and dislikes.	A way of relating, connecting, negotiating and getting along. Forming similarities and outlining difference.	Maintain connection (how your day went). Routine maintenance and working out of friction. Often thinking the same thing simultaneously or completing other's thoughts.	Things not said are just as communicative as things said -- signs of comfort or discomfort. Continue to support the other person even when it may be threatening. Never go to bed angry or with unresolved issues.
EXPRESSION	Phone calls & mundane conversation	Fall asleep while the other talks. Shut down by fear.	#N/A	#N/A
BASIC BEHAVIOR MODES	Indulge, emerge	Escape, attack, shut down, hide, approach, notice +/- of relationship	Recovery tools (apology), listen as a technique. Build on strengths of relationship.	Meditate, listen, empathy. Radical, fearless honesty (Brad Blanton's direct, open and honest conversation).
COMMUNITY				
COMMUNITY	Become isolationist	Go back to friends. Get collective friendships. New separate friendships may be threatening.	OK to have girls/guys day out.	Functioning in integrated community as extended family.
LOVE CIRCLE	Each other and parents	Expansion threatens relationship	Secure enough to form non-sexual love relationships outside of the core relationship without being a threat to the relationship	Expands in a non-possessive way to a wide circle of people
RELATION TO COMMUNITY	Go places with friends	Family focus	Support each other in community involvement and leadership	Have a novel and enduring positive impact on the people around them
COMPANY				
PROXIMITY (PHYSICAL PRESENCE)	Trying out the right mix. Finding the right amount of time.	Comfortable schedule and standard of how and how much to be in each others' presence and fits demands of work or career.	#N/A	Ok not to be in each others' presence and more appreciated when you're not.

	BEGINNING	*EARLY COMMITMENT*	*ESTABLISHED*	*INSPIRING*
CONFLICT RESOLUTION				
THIRD RAIL (TOUCH IT -> ELECTROCUTION)	Develop a methodology for dealing with it or avoiding it.	Dealing with 3rd rail results in successful marriage, avoidance results in failure.	#N/A	#N/A
EXCITEMENT				
EXCITEMENT	Break rules	Socialize, experiment, surprise	Bring others excitement in	Capitalize on social ties
JOY	Fun, laughter, attraction	plan surprises, develop private jokes	Find joy in routine; expand joy to include others	Bring joy in from outside world
FINANCE				
FINANCES	Keep resources separate.	Begin consolidating resources.	Follow/reject patterns you've seen others do but begin to change patterns to what you think is right.	Do what is fair without much effort.
FINANCIAL SUPPORT	Date pays	Help with special or occasional projects	Work out mutually beneficial system (equal)	Do what needs to be done for long-term goals
MONEY	In formation, being worked on and subject to sudden complete turn around and to negotiation (e.g., whose career is more important).	Dealing with the satisfactoriness of the outcomes of those early negotiations.	Reassess, re-image, revise. Can either bring couple together or drive them apart.	De-acquisitioning of career and reordering of expectations with expectations being reduced.
HELPMATE				
INTERDEPENDENCE	Excitement of being with each other	Companionship and distributed practical activities based on skills (who does it best)	Voluntary, balanced, agreed-upon, often self-sufficient interdependence (what's fair)	May suspend self-sufficiency and fairness in order to serve a common, broad goal
INTELLECT				
CHALLENGE	Will argue (debate opinions)	Evaluate partner's ideas, motivation, attitude	Challenge yourself to grow and engage partner	Look for community/social challenges together
INTELLECTUAL INTIMACY	Intellectual willingness to share deep feelings and not get rejected.	Trauma may kill relationship.	Worked out methodology for dealing with traumas, but buyers' remorse or recriminations can emerge in worse cases.	Don't even notice that you have to deal with it anymore.

	BEGINNING	*EARLY COMMITMENT*	*ESTABLISHED*	*INSPIRING*
INTELLECTUAL STIMULATION	Everything they are interested in is interesting to you.	Begin to want own interests. Want some independence (like teens with parents). Can be a threat.	Different interests are stimulating.	More enrichment of being an individual within an entity: me, you, us are three equal parts.
PRIDE IN PARTNER	Looks good	learn about abilities and accomplishments	Take pride in what you are building	Pride in community position/contribution
SUPPORT FOR IDEAS	Mostly listen	Test ideas	Make time for discussing / sharing ideas	Expand into community
PHYSICAL				
EGO SATISFACTION, DESIRES, NEEDS	Body, car, hair, boobs, penis, butt	Aware of ego drivers	Observer of ego and manager	Knows impermanence
GIVE LOVE	Flirt/tease	express affection	Suspend fulfillment of desires if necessary	Continue love despite health or proximity of partner
PHYSICAL	Drawn to the other for the "high."	Excitement fades and they begin asking how they can sustain connection. A week apart is unbearable	Get more comfortable with stretching the distance between each other. Don't fear infidelity or lack of care but may get snappy from being too close.	Can sustain long-term closeness as well as satisfaction.
PHYSICAL AFFECTION	Wait and hope	Give non-sexual affection	Give affection regularly and express need for it	Make time and incorporate affection daily. Expand to others.
PHYSICAL EXPRESSION	Hold Hands or sex with little meaning ("friends with benefits")	Fall asleep during sex	Know all the positions and body parts functionality	#N/A
SEX	Wait and hope	express interest and experiment	express need and discuss partner's needs and incorporate them	Transmute sexual energy into use for other activities
SELF-AWARENESS				
BALANCE	None -- fully absorbed, unaware, seduce, manipulate	#N/A	#N/A	Transcends events and triggers

	BEGINNING	*EARLY COMMITMENT*	*ESTABLISHED*	*INSPIRING*
OVERVIEW	High self-expectations, inexperienced, fantasy (naïve and simplistic), driven by own needs only, learning the language	Knocked around, learning of the other, tough lessons, observing self/other, imitation of others, learning the techniques	Repeat "mistakes" stay in pattern, labels/roles. Discover own needs, see the others' needs at times. Struggle to live the knowledge.	Fully open. Create fresh. No judgment. Fully secure. Accept mates on "totem pole."
SELF AWARENESS	Runs on automatic control. Needs High.	Discovery in process.	Practicing.	Not alone; interconnected to the whole.
SPIRITUAL				
SPIRITUAL	Shared interest	Search for common ground	Grow a common spirituality together	Connect with human spirituality, past and present
SPIRITUAL	None developed	Religious/spiritual discussion/evaluation	Foster common practices	Support others' spirituality
STRESS MANAGEMENT				
DEALING WITH LIFE STRESSES	Oblivious	Make uncoordinated attempts to cope	Attempt to cope with sensitivity to the impact on the health of their partner	Cope with a clear understanding of what can be done and what must be let go.
SYNERGY				
SYNERGY	None developed	Appreciate occasional glimpses of it	Look for ways to facilitate it	Capitalize on rich relationship
TRUST				
RESPECT	Not developed	Evaluate partner's responses	Act responsibly. Show partner respect. Uphold commitments.	Extend commitments beyond family, jointly.
SAFETY	Wear a condom	Have access (phone, regular visits)	Build family and support network	Rely on family and community ties
SECURITY (TRUST, COMMITMENT, PREDICTABILITY)	High school ring or fraternity pin	Phone machine message: "We…"	#N/A	#N/A
STABILITY	Not applicable	See regularly and establish routines	Exclusivity, live together	Grow roots into community. Use in trouble spots.
TESTING	Occurs a lot, sometimes obvious or planned, sometimes unconscious, but always risky.	Occurs rarely, but on a large scale, based on larger issues. Both count on the other passing the test and would be surprised if they didn't.	Tests only come with trauma and life-changing circumstances.	Testing is unnecessary -- everybody passes with no question.

	BEGINNING	EARLY COMMITMENT	ESTABLISHED	INSPIRING
TRUST	Testing out trust, expect to be trusted and want to trust each other. The testing can kill the relationship.	Total expectation of trust, but still a need for occasional demonstrations of that trust.	Demonstrations are hardly necessary. Expectations have been fulfilled.	A given whose demonstration is unnecessary.

Mathematics Teacher

Heather Walker taught math at the high school level for 10 years before joining the faculty of Savannah Tech 6 years ago. She has been the college's pioneer in using Blackboard® software to interact with students on-line in "hybrid" course (those taught with a combination of traditional classes and on-line instruction). She has been Teacher of the Year at Savannah Tech and is a key player in the college's Quality Enhancement Plan, which focuses on improving mathematics and computer science outcomes for students.

Mathematics Teacher Heather Walker, M.Ed. July 19, 2006

RESOURCE	BEGINNING	EXPLORATIONS	WORKING	CREATING
RELATION TO STUDENTS	They are threats	They are friends	They are recipients of teacher's knowledge and expertise	They are collaborators in learning, who may have useful ideas
COLLEGIAL RELATIONSHIPS	Do what they are told	Test the waters by changing the order of presentation or adding projects	Develop a live-and-let-live approach with colleagues	Compete with selves
WHOLE COURSE PERSPECTIVE	Know methods of subject, but not the reasons behind them	Focus on current lesson without getting the whole picture	Have the big picture	Have developed clearer explanations that make tasks less ambiguous and open possibilities for change
METHODS SOURCE	Don't know where to start doing something on their own	Seek "catchy" methods, which try to reach student on their level without necessarily maintaining academic integrity	Have developed an approach that works and resist alternatives	Constantly changing, researching and learning new approaches
NOVELTY	Teach the way they are taught	Focus on novelty	Threatened by novelty	Understand that new is not always better, but research new ideas to discover if they work.

RESOURCE	BEGINNING	EXPLORATIONS	WORKING	CREATING
ADEQUACY	Stick to the textbook and syllabus	Question why the course is given in a particular sequence	Affirm own approach without evaluating themselves	Constantly evaluate themselves by observing effects on students

Photographer

Rick Woods is both a fine art and a landscape and travel photographer (his wide background in photography includes extended work in cultural documentation as well as additional experience with journalistic, product, wedding, glamour and cartographic photography).His photographic career began solidly with an apprenticeship under the great Stanley Kubrick for a year soon after he filmed "2001: A Space Odessey."

Rick sees photography as communication – as a mutual sharing of inner and outer dialogue. It not only reveals the environments of others but by capturing what others look at, photography externalizes what is inside them. It is also a metaphor for teaching and a way to help people see for themselves. Rick enjoys listening to people of all levels of experience and emphasizes that every person has a unique perspective to discover and to share.

The Photographers' memetic profile Rick Woods is, like his photographs, carefully constructed to create the most authentic possible outcome within the constraints of the situation. The initial interview and draft profile merely laid the groundwork for a thoroughgoing revision. Both were a co-creative process, in which the photographer described and illustrated his craft until both interviewer and interviewee found acceptable words for tersely characterizing the meme in question. The resulting profile helps to reveal why it takes decades of experience to become a master and at the same time gives an image for less experienced photographers to strive for.

Photographer Rick Woods, July 8, 2003

	BEGINNERS	NOVICES	JOURNEYMEN	MASTERS
STRATEGY	Use spontaneous, accidental looking.	Study and plan shots.	Follow a tried and trusted formula.	Are absorbed in capturing images to depict the wonder and awe we experience in our natural world.
FOCUS	Usually focus responsively on what is immediately in front of them.	Discover an overwhelming variety of possibilities.	Understand the process of capturing images using the basic elements of photography such as light-and-shadow, depth of field, and composition.	Interact with subjects. Intentionally create multi-sensory experiences for themselves.
TIMING	Use spur-of-the-moment feelings to stimulate shots and may forget	Use sporadic episodes of consistent shooting. Choose shots regardless	Choose shots according to a style that is unique to themselves, but	Try to convey an image from (a) fleeting moments, like moving shadows or birds, (b) essences or characteristic events of

	that they have a camera with them.	of limitations of equipment.	which also sometimes limits possibilities.	persons or places, like expressions on a face or mist passing around a tree and (c) elements, like bark, sand, shadow, clouds or water. Capture images of people in natural, self-chosen settings.
EQUIPMENT	Unaware of equipment options (often miss opportunities to move in/out or change orientation of the camera).	Learn about equipment. Carry a tripod to slow down the look. Acquire zoom & wide-angle lenses, cameras with controls for focus & lighting. Test various films.	Armed with the latest technology, lights, and assistants as required.	Use tools only to the extent that they enhance the authenticity of the image.
PERSONAL GOAL	Seek images that remind them of their experience or of what they were seeking.	Seek images that prove to themselves their own proficiency of vision.	Seek images that professionally satisfy the vision of both themselves and their customers.	Seek authentic images of experience (pure but also polluted, whole but also damaged).
RELATIONAL GOAL	Seek a record of a moment for self, family or friends.	Test own creative expertise. Seek effect of their pictures on a variety of others, incl. strangers. Receptive to critique.	See products of their craftsmanship effectively used and appreciated by others.	Seek what moves people (love to look at other people's photos), what leads to their transcendence, and what uplifts or heals others.

Rabbi

Rabbi Belzer is the leader of Reform Congregation Mickve Israel in Savannah. He celebrated his "bar mitzvah year" (13th anniversary) at the congregation a few months ago. His deep commitment to tikkum olam – a Hebrew term referring to the healing of the world, can be seen by his involvement in a wide variety of activities. He is Vice-President of the Mastery Foundation, an international ecumenical organization, which conducts training workshops for clergy and lay people in the technology of transformation and centering prayer. He is also one of the founders of the Sino-Judaic Institute for promoting friendship and cooperation concerning, especially, mutual historical and cultural interests between the Jewish and Chinese people. Rabbi Belzer's sermons offer many insights into the connection between awe in creation and Jewish spirituality. Those who whish to understand this master of modern Judaism should first pay attention to how these insights edify his relationships with other.

Rabbi Arnold Belzer, July 8, 2003

	BEGINNERS	*NOVICES*	*JOURNEYMEN*	*MASTERS*

EMOTIONAL INVOLVEMENT	Fearful.	Enthusiastic without understanding the object of their enthusiasm.	Successful but with no passion.	Love to have impact on people's spiritual and emotional lives. Hope to contribute to the healing of the world (tikkum olam).
PERSONAL FOCUS	Have vague notions that a deeper knowledge of text might improve their lives.	Consumed by study of text yet fail to see connections between study and life.	Growth of ability to get along with people.	Cosmic passion.
PRACTICAL FOCUS	Attend classes.	Teach somewhere. Current learning usually ends up in lessons.	Involvement in building, quantitative issues, combative.	Interaction at life-cycle high/low points.
RELATIONS WITH INDIVIDUALS	Interested in people more advanced in the activity than themselves.	Have problems with interaction with people much older than themselves.	Respected by all, but not loved.	Help to move people from one place to another. See their love for congregation returned.
RELATION TO CONFLICT	Unaware of the conflict.	Take sides in conflict (jump in headfirst) without first considering the consequences (testing the water).	Don't take chances – or sides; strive to maintain professional distance in conflicts.	Take sides, knowing the consequences, the odds, and whether it will be worth taking the chance.
RELATION TO IRRATIONALITY	Unaware of the irrationality.	Surprised by the irrationality	Understand that families and religious institutions are where otherwise rational people become irrational. But are extraordinarily careful to avoid the conflict that results from irrationality.	Can look back at irrational events; discern the pieces of how it got there and where it will go. Can smell the explosion points.
LEADING COMMUNITY EVENTS	Often have stage freight. Focus more on their own behavior than on the needs of people at the event.	Meticulously prepared, but often fail to see what the event means and needs.	See their own aesthetic as the right way resulting in a tension between their desires to please and to do things the "right way." Fail to invest enough of both passion and compassion.	Do things the way people want them to be done. Realize that their greatest danger is their own ego.

SPIRITUAL EXPERIENCES	Anxious anticipation of spiritual experiences that occur in isolated snippets.	Work very hard at trying to have spiritual experience and often fail.	Open to spirituality but don't work hard at it. Thrilled when it happens. Relatively successful at helping others achieve it.	Achieve spiritual experiences often through God-centered prayer. Still in as much awe of it as beginner. Realize that awe in creation and in God are related intimately to spirituality.

Regional Economic Analyst

Ray Wood recently retired after 21 years of experience as an economic analyst for the Savannah Chamber of Commerce and the Savannah Electric Company. He contributed enthusiastically to the memetics project.

Especially interesting was his characterization of the Savannah economy as a five-legged stool based on the sources of new trade dollars (sources which bring outside money to the region). The legs are manufacturing, tourism, the military, retirees and the port, in order of dollars contributed. Higher education may be an emerging leg but is still smaller than the other five.

Economic Analyst Raymond Wood, May 28, 2003

	BEGINNERS	*NOVICES*	*JOURNEYMEN*	*MASTERS*
DATA SOURCES	Read analyses occasionally	Rework Wall Street Journal and Kiplinger reports	Go to government websites to view data strings	Analyze individual businesses as well as government data
UNITS	Don't know what unit to start with	Identify several sources of trade dollars	Identify the major sources of new trade dollars	Know how to connect industrial categories with each other
GROUPINGS	Repeat isolated figures	Report on several sectors of the economy	Build a big picture of a region	Correlate regional with national and international data
DATA ANALYSES	Transcribe data	Collate data	Describe historical direction of growth in time and space	Do their own econometrics
SHORT-TERM GOALS	Report news	Do annual data books & 3-color graphics.	Explain local economy for broad audiences	Are sought after for economic advice
LONG-TERM GOALS	Maintain audience	Save face for local chambers of commerce	Build informative database for local governments and businesses	Contribute to knowledge and public prosperity

SPIRITUAL EXPERIENCES	Anxious anticipation of spiritual experiences that occur in isolated snippets.	Work very hard at trying to have spiritual experience and often fail.	Open to spirituality but don't work hard at it. Thrilled when it happens. Relatively successful at helping others achieve it.	Achieve spiritual experiences often through God-centered prayer. Still in as much awe of it as beginner. Realize that awe in creation and in God are related intimately to spirituality.

SACS Review Project

Reginald Hendricks, Ph.D. is Executive Vice President at Savannah Technical College. He directed the College's decadal accreditation review that occurred in 2006. He has over two decades of experience managing large training projects. I enjoyed the benefits of his leadership for over a year before I thought to ask him what his basic leadership principles were. He replied that he "tries to do what he would want others to do." That's a time-tested approach which is effectively implemented in my experience with him.

This profile is the second "project" done as a memetic profile. As such it does not have the benefit of recurrence that accompanies developmental, historical or career profiles. In the hands of a master project director, however, the similarities to projects in general emerge from the particulars of this individual project.

Community College Executive Reginald Hendricks, June 6, 2006

RESOURCE	**BEGINNING**	**EXPLORATIONS**	**WORKING**	**CREATING**
GROUP	5 hi level management – Pres, EVP, VP, Dean, Dir	20+ people that are a cross-section of the college	Large group selected down to 8-10 with VPs taking responsibility for their own sections	Core group of final writers
GOAL	Learn about basic requirement	Interpret the criteria and decide on roles for creating responses	Discover relationships between sections	Discover project needs, identifying resources and getting the information
EFFORT	Go to conference. Recruit first group.	Attend meetings. Sporadic work on drafts.	Intermittent work to finalize draft	Continual work on finalizing sections both on and off campus, during and after work hours
LEADERSHIP ROLE	Decide on further involvement.	Get buy in from throughout the community but did not attend to details of output.	Continually ask whether we had documented compliance. Challenge when needed by project.	Make final decisions on draft acceptability. Suggest directions for improvement. Reduce stress and maintain conflict-free work by keeping calm and giving positive feedback.
MEETINGS	Attend orientation workshop	Highly organized with agendas and notes	Small groups of 2 or 3 people	A few times per month to get progress and reassign according to needs

RESOURCE	BEGINNING	EXPLORATIONS	WORKING	CREATING
COMMUNICATION	Mostly one-directional, from outside agency to college officials	Large meeting	Face-to-face mostly within own areas of responsibility	Multiple: face-to-face, email, multiple phones, access to each other's drafts.
WRITING	None	Meeting agendas and notes plus scattered drafts	Section drafts written from point of view of project guidelines and own responsibility	Drafts finalized from an overview of college, project guidelines and knowledge of other team members' skills
EDITORIAL TEAM	Non-existent	Decides on formatting.	Begins work using own favorite method	Selected to include only those with on-line editing skills. Uses specialized software to eliminate improper borrowing from non-college resources.
TEAMWORK	Peripheral participation—on the outside looking in, not yet knowing what role they would play.	Trying to view own role as an extension of familiar duties	Cooperation with one or two others having related responsibilities.	Cohesive, egoless effort to make the finest final project possible
RELATION TO NON-TEAM COLLEGE RESOURCES	Deciding who will be involved	Threatened when someone else is assigned to material relating to their own responsibility	Calling on resources within their own domain	Calling on any person in college with resource needed for project=

Progress toward a Science of Assessment in Higher Education

David Dirlam, Hebrew Union College - Jewish Institute of Religion, January -, 2012

DIMENSION	BEGINNING	EASY	PRACTICAL	INSPIRING
BACKGROUND				
PRACTICALLY OR THEORETICALLY NEEDED BY SOCIETY	**Questioning** Aware of need for field, often have specific research or policy questions in mind, but unaware of how to answer them.	**Mandated** Receive mandates to do research, but no funding. Mechanically apply methods of the field while often forgetting the questions that motivated their interest as beginners.	**Problem-Oriented** Become immersed in problems of a narrow specialty and lose perspective on how much of society's resources should be devoted to it.	**Policy Leading** Seek solutions to societal needs with awareness of the costs and benefits.

DIMENSION	BEGINNING	EASY	PRACTICAL	INSPIRING
PUBLIC, INDEXED, SPECIALIZED AND PEER REVIEWED DOCUMENTATION	**Newsletters** Have newsletters.	**Practical Journals** Have a few specialized, regional, national and international journals focused on particular areas of expertise but also on social practicality rather than scientific advancement.	**Scientific Journals** Have a wide variety of publicly indexed, peer reviewed documentation accessible to field scientists and focused on methodology, results and interpretation.	**Scientific Reviews** Add diverse review journals to specialized science-focused journals.
TRADITION OF CRITIQUE	**Isolated** Unaware of the massiveness of the literature related to their data.	**Sporadic** Read widely but sporadically. Do a mechanical or ritualistic search through a topic, but don't think through the implications.	**Accumulative** Read within their specialty and know a variety of tools for dealing with it, but fail to see repeated mistakes and thus, often confuse the existence of many papers with substantial knowledge.	**Methodological** Seek to improve the imperfect tools of the field by reading for methodology rather than content. Read in various disciplines and problem areas to find methods that apply to analogous problems.
PARADIGMATIC IDENTIFICATION OF METHODS, UNITS OF ANALYSIS, AND INTERPRETATIONS	**Unsystematic** Unaware of a need to systematize approaches to problems.	**Practice Identifying** Use categories of "best practices" that lack scientific testing.	**Paradigmatic** Have a paradigm that identifies methods, intersubjectively reliable units of analysis and interpretations.	**Multiple Paradigms** Compare results from more than one paradigm.
BASED ON FALSIFIABLE AND PREDICTIVE HYPOTHESES	**Biased** Based on biases.	**Applicability** Based on a consensus of social usefulness.	**Falsifiable and Predictive** Based on falsifiable hypotheses that generate predictions within a research paradigm.	**Converging Operations** Use converging operations to substantiate generalizations

DIMENSION	BEGINNING	EASY	PRACTICAL	INSPIRING
METHODS				
OBSERVABLE, INTERSUBJECTIVE UNITS	**Idiosyncratic** Use idiosyncratic, local observations (e.g., "program doting" or protecting group interests at the expense of common knowledge).	**Cumbersome and Private** Use units based on cumbersome techniques available only privately (e.g., standardized tests and general ledgers).	**Countable** Use units that can be identified and counted by trained observers with a high degree of speed and accuracy due to having been observed and publicly tested under very diverse circumstances by diverse practitioners.	**Automatic** Use units that are automatically determined (e.g., procedures can be described within a computer or mechanical procedure list).
MEASURABLE	**Non-scalable** Indiscriminately confuse nominal, ordinal, interval and ratio data.	**Scalable** Distinguish nominal, ordinal, interval and ratio data but confuse independent and dependent variables (e.g., group by age rather than measure time alive).	**Standardized** Measure time and position plus other ratio measures that use internationally standardized units while accounting for error magnitude.	**Derived** Develop new measures that can be validated through previously standardized units.
FIELD BASED AND EXPERIMENTAL	**Experiential** Apply methods from life experience or basic learning that are critically unconvincing.	**Field or Experimental** Focus on either field based or experimental methods.	**Field and Experimental** Combine or account for both field based and experimental data.	**International Databases** Create massive, international databases for analysis by the international community of scientists.
ANALYSIS				
AGGREGATED	**Unrelated** Count items with untested relationships (e.g., accounting and test items).	**Pseudo-related** Count items that show pseudo relationships (e.g., two test items that are answered by a particular mean age in a particular environment at a particular time).	**Distinguished** Treat unique patterns as unique.	**Powerful** Find "powerful" ways to identify and compare unique patterns (using a small number of descriptors to uniquely identify a very large number of patterns).

DIMENSION	BEGINNING	EASY	PRACTICAL	INSPIRING
MATHEMATICAL	**Non-mathematical** Unaware of the mathematical bases or use pseudo mathematical analyses.	**Transformed** Transform scores so that data look normally distributed or like ratio data (e.g. standardized scores or market values). Use analytical packages that obscure underlying data and mathematical assumptions.	**Model** Apply appropriate data models (e.g., Poisson probability is the number of items randomly distributed in an underlying continuum while item succession is likely to be nonlinear dynamic rather than random).	**Innovative Models** Create new data models (e.g., maximal information-based nonparametric exploration, *Science, 12/16/11*).
INTERPRETATIONS				
REPRODUCIBLE	**Undocumented** Fail to document methods, results or analysis.	**Personal** Document only our own use of methods, results or analysis.	**Methodically Reproducible** Identify and compare the results of many others who are using our same methods and analyses.	**Convergingly Reproducible** Compare results from others using different approaches.
SIMPLY explainable	**Descriptive** Endless description of detail.	**Organized Descriptions** Substitute organized descriptions for explanations.	**Inferential** A framework for organizing descriptions that results in reproducible findings and inferences using many fewer concepts than the descriptions do, but producing similar complexity.	**Progressive** A framework that showing that previously considered simple explanations are actually more complex than they appear or are falsifiable.
GENERALIZABLE	**Contextualized** Discussion is limited to the context of the study.	**Self-Help Style** Usefulness is asserted for multiple contexts in a self-help style.	**Comparative** Examples of observations and tests in contexts other than that being studied are compared.	**Comprehensive** Diverse groups use the finding in widely diverse circumstances.
MULTIPLY delimited	**Expansive** Arguments are made simply for the diversity of uses of the findings.	**Vague Limits** Limits on generalizability are vaguely described along with predictions of usefulness.	**Differentiated** Differences between multiple tests of generality from independent groups are identified.	**Transcended** Attempts to overcome limitations of prior methods are tested.

DIMENSION	BEGINNING	EASY	PRACTICAL	INSPIRING
CONVERGENT	**Haphazard** Study is haphazardly related to other studies.	**Parametric** New studies copy old ones with restricted changes.	**Intersected** Two independent approaches to a problem are used in such a way that they create more possible findings than either could alone.	**Convergent** Previously independent fields are used to study a single phenomenon.
SOCIALLY PRACTICAL	**Self-interested** Justify studies based on their own interests.	**Diffuse Audience** Fail to distinguish audiences of studies.	**Policy Directed** Write to policy makers.	**Science Directed** Write to present and future scientists.

Student Success Personnel

Verlene Lampley is VP of Student Success at Savannah Technical College. She has been Registrar, Recruiter, Continuing Education Specialist, Division Coordinator, Child Development Instructor, Training Coordinator and Training Consultant. Her most recent accomplishment is the implementation of a revolutionary change in the college's approach to student services, called the "One-Stop Center." As a development specialist, she connected with the process almost immediately, producing these 10 dimensions in a 45 minute interview.

Student Success Officer Verlene Lampley, M.S., July 19, 2006

SEQUENCE	BEGINNING	EXPLORING	WORKING	CREATING
GENERAL CHARACTERISTICS OF THE FOUR MODES OF PRACTICE				
USEFUL REACTION SOCIETAL VALUE	Gratitude	Respect	Welcome	Cultivate
CHARACTERISTIC EXPECTATION	Without them, we know and do nothing	They risk all, seeking new paths	They sustain and produce for self and others	They transform the untried but true into new productivity
RESOURCE	Conspicuously simple	Easy strategies that grow costly	Efficient	Invigorating
OUTCOME	They drop out or become part of exploring acts.	They burn out or become part of working acts.	They endure or become part of creative acts.	They endure or become part of other creative acts.
STUDENT SUCCESS MODES OF PRACTICE				
GIVING INFORMATION ABOUT ADMISSIONS PROCESS	Give out printed materials with instructions of what to do.	Begin to ask students questions to get a better feel of the students' previous experience, goals, and needs.	Get information into system and provide next step information	Complete total transaction (admissions, transfer of credit, program information) and refer to next step.

Sequence	*Beginning*	*Exploring*	*Working*	*Creating*
Responding to Inquiries about Programs	Give a paper fact sheet	Give name of person to see (e.g., instructor or advisor)	Answer questions related to program posed by student	Ask student questions to get full understanding of student's goal
Responding to Financial Aid Inquiries	Show student where to wait for financial aid counselor. Acts as front desk assistant.	Ask student a few questions to relay to counselor. Acts as receptionist.	Ask student questions to see if there might be an immediate solution. Acts as admissions specialist.	Solve the student's financial aid problem. Acts as financial aid counselor or director.
Response to complaints	Refer student to somebody else without even hearing the whole problem.	Listen to what the student says and then send to their supervisor	Listen thoroughly to student and then go to individual that can handle the complaint	Deal with the problem if they can. Calm the student down (give hope for a satisfactory solution). Tell the student the chain of command.
Interacting Attitude	Cautious	Helpful without attention to the limits of their ability or desirability to help	Focused and determined on meeting the needs of students.	Diplomatic (create harmony through the use of compassion, kindness, and reason).
Professionalism and Maturity	Allow personal life to impact work. Respond in kind to student's mood rather than leading student to new mood.	Respond to conferences with supervisor, clear cut expectations, and special training on customer service and dealing with difficult people (who may be colleagues).	Listen to positive and negative input from student, don't take either personally but try to solve the problem. Know job expectations, confident on job, trusted in situations without much supervision (e.g. outreach).	Identify the problem and provide clear, immediate and useful feedback. Find training opportunities.
Knowledge Base	Basic communication and computer skills but no knowledge of student success task or setting.	Understand basic student success functions (e.g., admissions, financial aid, registration)	Intricate knowledge of their office and its inter-functioning within student success. Know basics of how other offices function.	Know intricate details of how other divisions interplay with student success (e.g. administrative services, instructional services and continuing education).
Interpersonal Skills and Teamwork	Try to get along well with immediate supervisor	Get along well with everybody in student success	Connect with particular people in other divisions ((e.g. administrative services and instructional services)	Connect with all levels of people in all divisions

SEQUENCE	BEGINNING	EXPLORING	WORKING	CREATING
MANAGEMENT INFORMATION SYSTEM FUNCTIONING	Have to be shown how to use target form for function.	Ask if there are other forms that they could use to serve student needs easier.	Learn the entire admissions module and other forms that impact it (e.g. registration).	Know most modules in the entire system (registration, job placement, financial aid, recruitment).
INITIATIVE	Don't go beyond what they have been introduced to.	Ask about other forms or skills they could learn to help students	Learn on their own what other kinds of information they need to assist students. Seek out training opportunities on their own.	Keep abreast of activities of all divisions in the college. Come up with innovative ideas to improve services. Assess established plans and procedures and improve on them.

Watercolorist

Wayne Chambers is one of Savannah's best-known watercolorists. He has his own gallery, exhibits in several galleries around the city and holds frequent workshops for aspiring watercolorists. A look at his gallery (or website http://www.chambersartist.com) reveals a special fascination with exposing the character of historic Savannah houses.

Though my first rubrics system concerned children's drawing and was based on the lifelong work of famed art educator, Victor Lowenfeld (whose text went through at least 8 editions), Wayne's profile for watercolor painting contained several surprises for me. Wayne was especially interested in what painters looked at -- "beginners can walk right by master of works of art without even noticing them"; "novices focus on representational accuracy." Another novelty was that Wayne was interested in the rhythm of painting. For decades after working with Lowenfeld's system, I attended to whether a painter used S-shaped curves, but I never imagined watching the artist move. Now, I will always try to reconstruct the motions of the artist when I look at their work.

Watercolorist Wayne Chambers, May 8 ,2003

	BEGINNERS	NOVICES	JOURNEYMEN	MASTERS
ARTISTIC AWARENESS	Visually illiterate. Unaware of masterworks	Love and appreciate art	Work at artistic activities daily	Immersed in art as a way of life. See artistic possibilities anywhere
ARTISTIC KNOWLEDGE	Unaware of what they don't know	Seek to expand knowledge	Have an organized overview of art	Contribute knowledge to the artistic community
ATTITUDE	I'll try almost anything once.	I'm going to do this.	How does this suit people?	Sky's the limit. Ignore negativity.
MOTIVATION	Paint for novelty	Paint for practice	Paint for income	Paint to uplift selves and community

Response to workplace	Curious about tools	Intimidated by tools	Unbalanced use of tools, e.g. muddy colors, completely covered surfaces	Rhythmic, whole body use of tools: translucent colors, consistent replication of movements
Visual skills	Look haphazardly	Look at technical details	Look at rules of composition	Look at motions needed to create effects. Use or break composition rules to create depth of expression
Genre	Unaware of genres	Single minded. Use a few genres	Sales minded. Change genre to suit market	Open minded; genre serves expression
Expressive focus	Focus on paint and tools	Focus on literal meaning	Have a few expressive devices	Know and integrate many expressive devices

Dimensions of Work Relationships Mentioned in Profiles

Work relationships or teamwork were identified as at least one entire dimension in more than half of the profiles (see the WR dimensions below for details). Though there were some exceptions the following consensus is consistent with the thinking of most of the respondents.

Beginner	Novice	Worker	Master
Untrusting: Peripheral participants	**Imbalanced:** between egocentrism and losing own point of view.	**Balanced:** Do own work and let others do theirs. Competition usually involves striving for quality. Either continue to perfect dirty tricks (if allowed) or become good team members.	**Inspiring:** Creative, comfortable, absorption in task.

Research Enhancements

Research enhancements of the rubrics used by these sources will be based on a recent comprehensive review of "Enhancing the Effectiveness of Work Groups and Teams" by Steve Kozlowski and Daniel Ilgen which appeared in the journal *Psychological Science in the Public Interest*, December, 2006.

Team Training

A key point made by Kozlowski and Ilgen related to team training. Three training techniques developed for "high reliability" environments such as military, aviation and medicine produced reliable enough effects to receive their endorsement. None of these applied environments are represented among the interviewees mentioned above. This may explain why even though work group interrelations were considered critical, work group training was not identified as a key dimension. The three techniques endorsed by Kozlowski and Ilgen, therefore, should be considered master strategies for team development.

1. Cross training where team members are trained on each other's tasks, roles, and responsibilities.

2. Simulation training, ranging from personal computer modules to real-world emulations, where teams safely practice responding to both recurrent routine tasks and potentially life-threatening situations.
3. Team coordination training involved role playing and skill integration achieved through mutual performance monitoring, backup behavior, feedback and communication, and interpersonal relations.

Natural Team Development

A second interesting issue is natural team development. Kozlowski and Ilgen mention a few one-dimensional models beginning with Tuckman's classic (1965) *forming-storming-norming-performing* sequence. The Tuckman model fits well with the overall *beginner-novice-worker- master* sequence produced by the law of succession, though norming and performing appear more like two dimensions of the worker strategies and there is no "innovation" or "transforming" strategy that would suggest master performance. Not much is added by later approaches. Kozlowski's own synthesis (1999) implies the existence of multiple dimensions but adheres to the one-dimensional, stage-like sequence of earlier work. The field in general could benefit much from Changing Wisdoms findings that wherever human development occurs, it involves multiple dimensions with changing (both progressive and regressive) developmental strategies occurring from one event to the next and from one dimension to the next within a single event.

Leadership

A third issue involves leadership. Kozlowski and Ilgen's review of leadership styles resulted in the following categories:

- Laissez-faire
  Management by exception
- Passive--Reactive, after-the-fact
  Active--Proactive and corrective
- Transactional--negotiating mutually beneficial changes with subordinates
  Transformational--leading with a cluster of strategies
- Charisma--admirable qualities resulting in identification
  Inspiration--providing an appealing vision of the future with meaningful goals
- Intellectual stimulation--providing challenges, provocation and engagement
  Individualized consideration--sensitivity to member needs

This categorization provides three constructive examples of how the Changing Wisdoms model can enhance our understanding of the literature. For one, the first two categories are defined in the literature as ineffective. They fit well with the beginner and novice strategies mentioned in the interviews. Transactional and transformational leadership, on the other hand, were both found to be effective with a variety of measures. They respectively provide a good fit to the qualities of worker and master strategies. Thus, these four styles are not just preferences, but actually developmental differences.

The second example of a Changing Wisdoms enhancement to the literature comes from the observation that all four characteristics of transformational leadership are extremely unlikely to co-occur in every situation. Therefore, they actually comprise four dimensions of leadership. There are also more than two levels (presence or absence) of at least some of the four dimensions. The [Communication](#) profile, for example, includes the following dimension, which obviously covers much of the same meaning as "individualized consideration":

Dimension	Beginner	Novice	Worker	Master
Active Listening and Sharing	Receive the verbal and nonverbal message	Understand and remember the speaker's viewpoint using active listening	Evaluate according to the needs and rights of self and speaker plus correct attributions and facts	Respond with empathy, challenge or agreement while being true, relevant and brief

Third, even at four dimensions, this is a very thin definition of leadership (none of the dozens of masters interviewed provided less than six dimensions of their mastery). Surely leadership is far richer than this categorization suggests.

Work Relations Mentioned in 14 Profiles

SOURCE: DIMENSION	BEGINNER	NOVICE	WORKER	MASTER
Auto sales: Fellow Salespeople	Ready to blow up balloons and move cars around. Won't push journeymen out of the phone seat.	Find it entertaining to bring problems to manager. Learn how to play the customer-grab game and fight the domination game.	Self-motivated individuals with no teamwork incentives do whatever they can get away with to get sale. *Promise* things they can't do and tell customers to come back on day off. *Skate* (steal) deals from each other. *Poison* other salespeople with false advice (view them as competitors). *Stack* customers with 2+ appointments, pick best, burn rest. Do no housekeeping, have no loyalty. Would leave if not afraid other places not real. Don't care about store success, only own sales. High sales may get them preferred treatment. Team players are committed to dealership, maintain a good working relation with others in it (e.g., know who to stroke to get cars cleaned, inspected on time). Compete by trying to sell the right way. More often chosen for leadership positions.	Realize they are there to support the sales process, rescue sales and make a profit for the store. Effectively coaches less experienced people. Performs uncompensated work, such as check ins. Compete by doing every sale the right way.
Change Consultant: Interface with Team Members	Do what they are told. Dependent. Think about current step.	Independent and maybe do some supervision. Know what they need to do. Think about next step.	Manage others. Think 5 steps ahead.	Lead; have a vision. Think 10 steps ahead. Are thought leaders and teach customers how to be thought leaders.

SOURCE: DIMENSION	BEGINNER	NOVICE	WORKER	MASTER
Data Analyst: Collaboration and Competition	Wait for invitation	Will distort data and the processes used in analysis to enhance self (e.g. may seek to discredit data to save face or pretend to act as editor and send off incomplete analyses to discredit a collaborator).	Compete with other analysts only to see who can make the best product.	Engage in comfortable, open, fun collaboration to create products that make lasting contributions to a community
Early Childhood Teacher: Relation to other teachers	Questions all the time or try to hide their lack of knowledge by not asking questions.	Observe other teachers in action and willing to accept advice, but need to be reminded not to lose their own point of view	Doing their job	Coordinate comfortably with other teachers as allies in the process of stimulating learning.
Harpist: Ensemble	Work on own part.	Work out where the line in the score fits with others.	Rehearse in order to perform part responsibly.	Motivated by something inside to create and recreate each performance.
History Tour Guide: Relation to Other Guides	Crab about jerks and irritations.	Crab, but begin to ask why and put events into a context that leads to improvement.	Crab and question but offer explanations and insight.	Listen. Work on expanding their knowledge. Recount something especially good that happened.
Librarian: Emotional	Often highly intimidated	Industrious (do a job)	Intellectually curious	Caring about users and information resources
Librarian: Decorum	Out of balance (overly quiet or acting goofy)	Still need to be shushed	Aware of other users need to concentrate	Aware of multiple needs of other users
Mathematics Teacher: Collegial Relationships	Do what they are told	Test the waters by changing the order of presentation or adding projects	Develop a live-and-let-live approach with colleagues	Compete with selves

SOURCE: DIMENSION	BEGINNER	NOVICE	WORKER	MASTER
Photographer: Relational goal	Seek a record of a moment for self, family or friends.	Test own creative expertise. Seek effect of their pictures on a variety of others, incl. strangers. Receptive to critique.	See products of their craftsmanship effectively used and appreciated by others.	Seek what moves people (love to look at other people's photos), what leads to their transcendence, and what uplifts or heals others.
Rabbi: Relations with individuals	Interested in people more advanced in the activity than themselves.	Have problems with interaction with people much older than themselves.	Respected by all, but not loved.	Help to move people from one place to another. See their love for congregation returned.
Rabbi: Relation to conflict	Unaware of conflict.	Take sides in conflict (jump in headfirst) without first considering the consequences (testing the water).	Don't take chances – or sides; strive to maintain professional distance in conflict.	Take sides, knowing the consequences, the odds, and whether it will be worth taking the chance.
Singer: Ensemble relationship	Feels not worthy	Cat fight	Delight in exchange; comfortable competition	Union into a whole ensemble; no ego
Student Success Personnel: Interpersonal Skills and Teamwork	Try to get along well with immediate supervisor	Get along well with everybody in student success	Connect with particular people in other divisions ((e.g. administrative services and instructional services)	Connect with all levels of people in all divisions

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D. K. Dirlam Background

Academic

<u>Biographical Story by Stephanie Smaglo, 2013</u>

Both a knowledge researcher (see milestones below) and a semi-professional musician (see <u>traditional music</u>), I have taught psychological research, directed a campus school, owned a computer dealership in San Diego, CA and the Folk Traditions Store in Savannah, GA. My positions included being the Senior Assessment Coordinator for the <u>Savannah College of Art and Design</u>, Director of Institutional Research and Assessment at <u>Hebrew Union College</u>, and Director of Institutional Effectiveness at <u>Virginia Wesleyan University</u>. I have written over 100 articles and papers in professional journals, organizations and popular publications. I am the author of <u>Teachers, Learners, Modes of Practice: Theory and Methodology for Identifying Knowledge Development</u>. References for many of the milestones below can be found in that work. I have been married to Annette Dirlam since 1981 and acknowledge her unwavering and productive commitment to changing wisdoms during all of those years.

- Invented multidimensional rubrics in 1973, that have since generated thousands of educational research articles.
  - Provide surprisingly efficient and powerful ways to evaluate natural educational activities without interfering with them or demeaning the learner (<u>1978</u>).
  - Used to generate a computerized textual analysis (<u>1976</u>).
- Enabled the nation's first rigorously scored systems for evaluating spontaneous student drawing and writing
  - Standardized developmental ratings (now called rubrics) of children's drawing (for the NY State Education Dept; see Dirlam, <u>1978</u>, 1996).
  - Standardized developmental ratings used for the nation's first natural language writing exam (for the NY State Regents) in 1979 (see Dirlam, 1996, 1997
- Discovered the competing strategies theory of individual and historical development in 1995 (see Dirlam, 1997, 2003, 2006).
  - Reveals why development appears to be in stages.
  - Reveals how to capture the richness and depth of development hidden in the generality of stage theories.
  - Reveals how people can use the natural richness and depth of developmental successions to improve their everyday lives.
- Created the mastery profile interview in 2003 (see Dirlam, 2006 and <u>Profiles</u> on this site)
  - Encapsulates the wisdom of people who have mastered an activity
  - Preserves wisdom in a surprisingly efficient and powerful format.
  - Makes diverse wisdoms understandable to those without the time or means to develop them themselves.
  - Stimulates and directs the development of wisdom for those with a commitment to grow.
- Conducted over 300 developmental interviews from 2003 to present including
  - 60 interviews of design experts in 20 fields of design created Trillions of Ways to Design (2007-2009)
  - 60 interviews of Reform Rabbis, Cantors, and Jewish Educators (2009-2012)
  - 80 interviews of Liberal Arts Faculty Members in Humaniites, Social Sciences, and Sciences (2013-2015)
- Created cascading developmental interviews where interviewees become interviewers

- o For writing across the curriculum (2011-12)
- o For expertise in assessing learning in higher education (2017-2018)
- o For musical development (2012-2018)
- Applied praxomics to propose the Accelerated Development Curriculum (2017, Ch. 6).

Milestone articles and books by David Dirlam are included below:

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Music

David performed as flutist and solo recorder with the Green Bay Symphony (WI) for several years. He organized small local ensembles including the Highland Friends Trio (VA) and Amhran Savannah (GA). His Savannah Irish Session performed several years at the renowned Savannah Irish Festival. In Savannah, he also performed solo or with several accomplished string players, who are well known along the creative coast from Savannah to Jacksonville, often including the renowned Kat Brasweel. Since moving to Fuquay-Varina, NC, he has performed with composer/pianist Michael Stevens.

Mission: Performances that captivate the spirit, we strive to create experiences like the one so sensitively and eloquently expressed by one of our patrons after a solo performance before and during their wedding...

Feedback:

- *Words cannot express how deeply we appreciate the exquisitely beautiful music that filled the air and graced our wedding ceremony. And it means so much to us that with it come two wonderful people to join in the celebration!*
- *Being surrounded by so much love and support was such a humbling and profound reminder of just how much God has blessed our lives with such a tremendous sense of family. These moments were so surreal and somehow timeless -- and we can't imagine anything capturing the essence of that feeling better than the enchanting melodies of your flute. Thank you for sharing such a precious gift.*
- *We were so pleased when we received a video of the ceremony that we had forgotten was recorded by one of your friends. Hearing the music again took us right back to that day --- in a way that even pictures cannot quite do.*

Instruments

- Classical and Irish flutes
- Soprano, Alto and Tenor Recorders
- Harp

Traditional Styles

- Jewish (weddings and services)
- Irish (session music, aires)
- Renaissance and Baroque
- American hymns and wedding music

Occasions ranging from informal to formal

- Weddings
- Dinners
- Parties
- Openings

Creating with you soundscapes that inspire.

ERIC 1976 Citation, Dirlam and Manganel

Title:	Structured Key-Word Analysis.
Author(s):	Dirlam, David K.; Manganal, Richard A.
Publication Year:	1976
Descriptors:	*Response Style (Tests); *Structural Analysis; *Word Frequency; Classification; Computer Oriented Programs; Educational Testing; Scoring
Identifiers:	*Key Word Analysis; Open End Questions
Abstract:	Structured Key-word Analysis is a computerizable technique for objectively analyzing the natural language responses to open-end questions. Key-words are frequently used content words. Pairs of key-words that appear together in protocols either extremely often or extremely seldom (compared with the probability of co-appearance) are termed conjoint or disjoint pairs respectively. Individual protocols can then be scored for degree of stereotyping, uniqueness and fluency. The analysis should be especially helpful for evaluating open education, since standardized tests with closed-end items may not be appropriate for that use. (Author)
Notes:	Paper presented at the Annual Meeting of the American Educational Research Association (60th, San Francisco, California, April 19-23, 1976)
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Standardized Developmental Ratings.

Dirlam, David; Byrne, Maureen

The feasibility of standardized assessment of features of children's organization of knowledge and the demonstration of differences in organization between stages of development were investigated. It was possible to standardize developmentally derived instruments, in the same way as empirically derived tests because such evaluations concern the changing organization of knowledge, rather than content. Drawings and stories were collected from school age children and rated by five teachers trained in an analytic procedure based on Lowenfeld's theory for drawing and Moffett's theory for discourse. It was demonstrated that standardized developmental ratings (SDR) could be done with a high degree of reliability. It was concluded that SDR's could assist teachers in determining a child's developmental level and in detecting when the child made the transition to a subsequent stage of development. (RD)

Descriptors: Developmental Stages, Developmental Tasks, Discourse Analysis, Educational Diagnosis, Elementary Education, Elementary School Teachers, Freehand Drawing, Language Acquisition, Reliability, Research Reports, Standardized Tests, Story Telling, Student Evaluation, Teacher Attitudes, Test Construction

Publication Type: Speeches/Meeting Papers; Reports - Research

Education Level: N/A

Audience: N/A

Language: English

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