



# History and Research

## Foundational Information About Our Personal Assessment

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**Overview:** The Insight Edge Personal Assessment is a weighted self-assessment comprised of 24 items. Each item contains four distinctive adjectives. After selecting one



adjective that is most like them and one adjective that is least like them from each group, individuals receive a report with personalized insight. In a 5-year study of thousands of participants conducted by several PhDs commissioned by Keystone Research Labs—the research association created by Insight Research Labs founder Michael Cheney—the participants found their reports to be 91.5% accurate. 1) More recently, on a smaller, mixed sample of 391 military and civilian participants, the participants found their reports to be 86.8% accurate. 2)

The Personal Assessment was finalized by Michael D. Cheney's team of doctors from academia and the field of medicine during the late 1980s and early 1990s. These individuals put extensive labor into refining, testing, and retesting the Personal Assessment to ensure its precision. Still, a debt for this ambitious project is primarily owed to two intellects: Dr. Ford Cheney, D.O / M.D. —Michael Cheney's father—and, more so, his acclaimed colleague Dr. Gordon Allport, PhD.

**Dr. Gordon Allport:** The academic community at large concurs that Dr. Gordon Allport, PhD, offered the first American course on personality psychology all the way back in the mid-1920s. 3) Under the broad umbrella that is the field of personality, Allport specialized as a trait theorist. More monumental than his creation of the first course on personality psychology in America was his constant emphasis on the individuality of each person, a thought process that collided with the categorical approach of many psychologists of that time period. Indeed, throughout the course of his life, Allport purported that the best way to understand the uniqueness of an individual is to ask that individual about him or herself. 4) The following story further illustrates Allport's particular leanings in the field of psychology.

While on a trip to Europe, at the age of 22, brimming with youthful enthusiasm and intellectual ardor, Allport decided to pay the infamous Sigmund Freud a visit in Vienna. Polite and diplomatic as he was,

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1) See the appendices for the reproduction of letters pertaining to this research.

2) Walley, S. J., Pehrson, K. L., & Panos, P. T. (2006, July-September). A validation study of a commonly used military assessment of personality interactional patterns. *U.S. Army Medical Department Journal*, 9(3), 59-68. Retrieved July 17, 2008, from U.S. Army Medical Department Center & School Web site: <https://www.cs.amedd.army.mil/ameddjournal/2006julsep.pdf>

3) Nicholson, I. A. M. (1997). To "correlate psychology and sRetrievedocial ethics": Gordon Allport and the first course in American personality psychology. *Journal of Personality*, 65(3), 733-742. May 12, 2008, from Academic Search Premier database.

4). Pervin, L., Cervone, D., & John, O. (2005). *HS814: Theories of Personality* (material excerpted from *Personality theory and research* (9th ed.)). Hoboken, NJ: John Wiley & Sons, Inc.

Allport chose to break the ice by relating a story about sharing a train car on the way to Vienna with a four-year-old youth with a dirt phobia and the boy's peculiar mother. Freud, always probing to find unconscious motives, asked if the young child was Allport. That encounter left a pungent taste in Allport's mouth, and he, like many of us, developed the opinion that one would be better off paying attention to individuals' observable motives rather than conducting an intrusive probe of the subconscious. 5)

**Planting Roots:** Though those who take our assessment attest that it gives them extremely accurate feedback, it would be negligent of us not to share that this accuracy took some time to develop. As we barely mentioned, Allport had the intuition to recognize that, even from a psychological perspective, individuals must be appreciated for their uniqueness. 6) Along these lines he asserted that: a) individuals possess traits to varying degrees; b) these traits are consistent attributes of individuals' compositions; c) in certain situations individuals may modify their behavior in a way that contrasts their normal traits; and d) individuals should be compared in an intrapersonal rather than an interpersonal manner. 7) To more clearly articulate the last point, we should contrast within the individual the degree to which that person uses one trait in comparison to another rather than using other people as the bar against which to measure the individual.

When Dr. Allport initially began developing ways to measure traits and their degree of use in distinct individuals, he believed that he could only collect accurate data if respondents answered an extensive questionnaire. When Dr. Ford Cheney came on board to begin helping Dr. Allport with field studies in the late 1940s, it's estimated that the assessment was 200-plus items in length. On each of those items, participants were asked to carefully rate the degree to which a specific statement or scenario described them.

As Dr. Allport's ideas began to gain prominence in the academic community, he traveled extensively offering lectures on his findings. When Dr. Ford Cheney visited one of these presentations, he realized that Allport's concepts had some extremely valuable, real world applications. Understanding the mutual benefit of such an alliance, Allport and Cheney began further testing of Allport's assessment in the environment Dr. Cheney could offer: the hospital.

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5). Pervin, L., Cervone, D., & John, O. (2005). HS814: Theories of Personality (material excerpted from Personality theory and research (9th ed.)). Hoboken, NJ: John Wiley & Sons, Inc.

6) Our Personal Assessment reflects this reality. There are literally trillions of combinations of scores which any one individual could receive on our Personal Communication Assessment.

7) Pervin, L., Cervone, D., & John, O. (2005). HS814: Theories of Personality (material excerpted from Personality theory and research (9th ed.)). Hoboken, NJ: John Wiley & Sons, Inc.

As Dr. Cheney administered the assessment to patients and physicians, the length of the evaluation proved problematic. Consequently, Cheney convinced Allport to have his researchers abridge the assessment. This process of field testing and abridging went on for some time and the culmination of that refinement was a 32-item assessment that used the same most-least model we use today. However, in addition to being slightly longer than our current assessment, it was also dissimilar in that it used a linear scoring mechanism and simply ranked each pattern an individual used; it did not determine the degree to which individuals used each pattern. Still, this final method provided the skeleton for the assessment we use today. Importantly, this most-least model, by asking individuals to make the oft difficult choice of selecting only one word from each category that is most like them and one word that is least like them, ensured that individuals, as Allport emphasized, were understood in an intrapersonal manner.

Ultimately, the initial research by Allport and his later collaboration with Cheney accomplished several things. First of all, they determined that identifiable groups of individuals who shared common traits tended to respond to words in the same way, interpreting them as connotatively positive or negative. Second, they found that even when individuals did not know the dictionary definitions of certain words, those individuals would still have the corresponding affinity for or aversion to those words indicative of their patterns. Also, related to the first point, Allport and Cheney were able to determine that individuals with the same primary patterns, when choosing words, tended to share a distinct hierarchy of words. For instance, individuals who primarily used the Driver pattern—the term they then used for the Dominant pattern—might respond positively to the words “forward” and “aggressive.” However, those individuals would rate the word “aggressive” as more descriptive of themselves than the word “forward.” Likewise, they would rate a word like “contented” as low on the hierarchy and non-descriptive of themselves.

**Creation of Keystone Research Labs:** Obviously, Dr. Allport and Dr. Cheney’s studies had a great deal of value. It was during his childhood that Michael Cheney, the founder of Insight, experienced the applicability of their work. Trying to earn a brand new bike at the age of 11, Michael signed up to sell newspaper subscriptions. On his first night, he left excited and, two hours later, came home deflated having found no buyers. His father, seeing a new application for his and Allport’s findings, quickly coached Michael on how to sell the subscriptions based on the pattern used by the individual who answered the door. One hour later, Michael had sold 9 subscriptions.

In addition to affording him the ability to sell newspapers and to earn enough money to pay for a brand new bike, the insight his father offered him facilitated his further success. For nearly a decade, as a young employee at NICS and ADP, he used the same understanding of people to become a top performing salesperson and manager. Accordingly, Michael wanted to gain an even greater understanding of people

and increase others' access to the material that had helped him thrive. In the early 1970s he established Keystone Research Labs to begin further testing and refinement of the Allport-Cheney studies.

**Development of the Personal Assessment:** In the process of creating the weighted, 24-item assessment, the research teams Michael Cheney hired accomplished several important feats. Using an experimental design, they were able to determine the degree to which individuals of the various patterns felt about specific words. Words determined to not have a statistical significance were discarded. Eventually, the researchers arrived at a method to measure the degrees to which individuals use each Pattern of Communication™ based both on words about which individuals felt strongly—the ones they selected as most or least like themselves—as well as the two adjectives which they did not select.

Critical in this weighting process as well, not only are individual words weighted, but choosing similar words also affects the weighting. As such, when individuals choose several words that indicate a preference for a specific pattern, it further increases the weighting for that pattern. Insight Research Labs holds the patent on using weights to measure. The accuracy achieved through this approach is what allows us to report the degree to which individuals use each of the four Patterns of Communication™ in three specific categories: How You See Yourself, How Others See You, and Behavior Under Pressure.

One may ask why Allport never used such a weighted design himself. Unfortunately for Allport, our researchers had the advantage of technical assistance to which Allport never had access. The advent of the personal computer is what has allowed us to use all of the various weightings and consequently execute Allport's visionary insight—an accurate, intrapersonal comparison—on a broad scale. What would take hours otherwise, occurs in a matter of seconds in the real-time generation of our reports.

**Studies on Self-Reported Accuracy:** Our assessments have proven to have noted accuracy precisely because of the aforementioned foundations and capabilities. As noted in the introduction, a recent study, available for public access online as referenced in the footnote, showed that participants attest that their individualized Personal Communication Reports are 86.8% accurate. <sup>8)</sup> Similarly, in the study Keystone Research Labs commissioned, participants indicated that their Personal Communication Reports were 91.5% accurate.

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<sup>8)</sup> Walley, S. J., Pehrson, K. L., & Panos, P. T. (2006, July-September). A validation study of a commonly used military assessment of personality interactional patterns. U.S. Army Medical Department Journal, 9(3), 59-68. Retrieved July 17, 2008, from U.S. Army Medical Department Center & School Web site: <https://www.cs.amedd.army.mil/ameddjournal/2006julsep.pdf>

Determining the accuracy of our reports was an undertaking begun in 1987 when Keystone Research Labs made arrangements with three PhDs to conduct additional study on the Personal Assessment. They were given full power as to how to structure and conduct the study. The only involvement required of Keystone Research Labs was to provide the three PhDs with any raw data they might require to properly conduct the study. The test subjects were collected from Michael Cheney's large base of clients. The project was much more extensive than originally thought, requiring 5 years of research and producing prolific amounts of data. The subject base came from all walks of life, ranged in age from 19 to 62, and lived in many parts of the United States and Canada.

Subjects were tested initially, again six months later, and a final time one year after the initial testing in order to determine to what degree the test produced consistent results. After one year, the average correlation coefficient for the four primary patterns with respect to how subjects viewed themselves was 0.65. For how others viewed them the average coefficient was 0.57. And for the way subjects behaved under pressure the average coefficient was 0.63. This same subject group was maintained up through 1992 and the overall testing average coefficient was 0.58, retaining remarkable consistency.

**Further Research:** Though we regularly try to make the information contained in our reports more accessible and user-friendly, our ongoing goal is not to perfectly describe each individual's unique Patterns of Communication™. Due to individuality—the collective human ability to not be pigeonholed—as seen in the limitless combinations one could receive in their graphs, we know that 100% accuracy is not achievable. Nor should it be. The uniqueness of each human is what makes life and our field of work so intriguing.

Still, we are always interested in better understanding Patterns of Communication™. Other studies conducted with relevance to the Personal Assessment continue to offer us new insights. For example, in conjunction with the 5-year study on the accuracy of the Personal Report, researchers tried to determine if and how patterns manifest themselves differently in the sexes. Those findings informed us not to provide our reports based on gender. Our experience suggests that although gender may affect how a pattern manifests—women tend to be more responsive and less assertive than men—gender does not affect the basic characteristics of the pattern.

Another longitudinal study our research team conducted emphasized the resiliency of the primary pattern individuals use. Assessments taken at 6-month, 1-year, and 4-year intervals indicated a permanent change in the primary communication pattern of only 3% of participants. Importantly, in those cases where the primary pattern did change, it was correlated with drug abuse, a traumatic event, or some other unusually harrowing, life altering incident. In relationship to this study, other preliminary observations

suggest that we can determine the primary pattern an individual will use throughout his or her life by observing the behavior of the unborn child during the third trimester of the mother's pregnancy. Outside research, though not yet seriously delving into the communication patterns of the unborn child, has also attested to the resiliency of individual's traits. For instance, in a recently published longitudinal study, the researchers concluded, after having tracked 103 individuals from ages four to 23, that the traits of most of the children were set at least by the time the study had commenced. 9)

In closing it's important to note that our findings do not conflict with current research about the relative changes of personality over the course of an individual's life, especially during the transition into adulthood. 10) There is a distinct delineation between the broad field of personality and our more specific scope, Patterns of Communication™. Though connections may be seen between the two, they are not the same. We continue to focus on teaching about the Patterns of Communication™, helping ourselves and others to understand: a) how those patterns play out in interpersonal relationships and b) how awareness of them can help us be better communicators. As such, we are eager to see what further research will show us about the nature of Patterns of Communication™.

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9) Carrol, L. (2008, January 15). Personality may be set by preschool: Study finds shy kids stay shy while rambunctious tots withdraw some [Electronic Version]. Retrieved July 20, 2008, from MSNBC Web site: <http://www.nbcnews.com/id/22554554>

10) Neyer, F. J., & Lehnart, J. (2007, June). Relationships matter in personality development: Evidence from an 8-year longitudinal study across young adulthood. *Journal of Personality*, 75(3), 535-568. Retrieved July 20, 2008, from Academic Search Premier database.

## Appendix A

The following is a reproduction of a letter sent to Michael Cheney regarding completion of the study that tested, among other things, the test-retest consistency of the Personal Assessment:

T. Stites, PhD.  
D. Barton, PhD.  
T. Vincent, PhD.

May 3, 1992

We regret that this study has taken us over five years to complete, but it was worth it. Thank you for the funding and continual encouragement and support. As you know, it required compiling profiles from all across the United States and Canada. We profiled 9,743 individuals from janitors to company presidents, married and unmarried, young and old, and everyone in between. There has never been a study of this depth on personalities before. We have truly gathered some remarkable information on styles and their behaviors. We will have to carefully consider the wisdom and dangers of giving out the results of profiles by gender. Give this some thought.

We have attached a summary sheet of our results in your areas of focus. We know that you will be excited with the outcomes. May we caution you to secure the raw data that will be delivered by messenger. This is not the kind of information that an untrained analyst should be drawing conclusions from. In other words, Mike, keep the raw data away from your sales and marketing departments. We will see you at the board meeting in June.

T. Stites, Project Coordinator  
D. Barton, Team Leader East  
T. Vincent, Team Leader West



## Appendix B

The following is a reproduction of a letter sent to Michael Cheney upon completion of the testing of using definitions in the assessment:

May 3, 1992

T. Stites, PhD

To: Michael Cheney, Director, Keystone Research Labs

My team has completed validation of the Personality Profile with definitions. The base-line group was made up of 2,867 participants. Ages ranged from 19 to 62. Testing of definitions was completed February 23. Review analysis of reports was completed May 17.

The study confirms that having definitions of most and least words increases the percentage of accuracy in reporting style of participant. See summary below.

Pattern	Without Definitions	With Definitions	Accuracy Increase
Dominant	72%	93%	21%
Expressive	76%	91%	15%
Analytical	78%	92%	14%
Amiable	73%	90%	17%
Average	74.75%	91.5%	16.75%

There is a +/- 1% error factor

There is a +/- 1% error factor

# Personality may be set by preschool

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Study finds shy kids stay shy while rambunctious tots withdraw some

By

Linda Carroll

msnbc.com contributor

updated 1/15/2008 8:44:33 AM ET

Ever wonder if that quiet girl who hid in the back corner of the classroom ever burst out of her shell? Perhaps she became a whiz at computers. And what about the class clown? Did all his attention-grabbing antics develop into a charm that would later earn him big bucks selling timeshares in Bermuda?

New research shows that in most cases the personalities displayed very early in life — as young as preschool — will stay with us into adulthood. The wallflowers will stay shy and reticent, though they will learn in time to be a little more sociable and assertive. And the average kids, the more resilient ones, will remain so.

But there is an interesting exception: The study found that as the most noisy and rambunctious kids hit their 20s, they still were more aggressive than the others yet they had become considerably more withdrawn than they were earlier in life. The researchers suspect that negative feedback from peers over the years makes these kids more self-conscious and quiet.



New research shows that in most cases the personalities displayed in preschool will stay with us

"At first, their impulsive behavior may appear 'cool,' gaining them social recognition," says the study's lead author Jaap Dennissen, a professor of psychology at Humboldt University in Berlin, Germany. "However, as people grow up and are expected to act more mature, such impulsive behavior is increasingly rejected. Because of this expected rejection by peers, [they] may act in an increasingly shy manner."

The new study, which appears in the February issue of the *Journal of Personality*, followed 103 kids for 19 years, starting when they were age 4 and ending when they hit their early 20s. To get an initial sense of the preschoolers' personalities, the researchers surveyed both teachers and parents when the children were ages 4, 5 and 6. Based on the observations of their parents and teachers, the children were identified as having one of three personality types: overcontrolled, undercontrolled or resilient.

The overcontrolled kids were generally the ones most of us would categorize as shy: quiet, self-conscious, uncomfortable around strangers. "Overcontrollers control their emotions too much," explains Dennissen. "So they are less able to act 'natural' and 'spontaneous.' Because they are so slow to warm up, they are seen by others as shy."

Undercontrollers have too little control over impulses, Dennissen says. "When they feel frustrated they may act aggressively towards others, notwithstanding the negative consequences."

The resilient kids are the ones in the middle who are good at modulating their emotions, interacting with others and bouncing back from adversity.

## Some mature faster than others

Over the course of the study, Dennissen and his colleagues checked back in on the kids through questionnaires filled out by the parents every year up until the children were 10, and then again when the children reached the ages of 12, 17 and 23.

Interestingly, compared to the resilient children, both undercontrollers and overcontrollers took longer to move into adult roles, such as leaving home, starting a romantic relationship or finding a career. Accomplishing these milestones requires social adeptness that over- and undercontrollers may take longer to develop.

Ultimately, though, no matter which group kids start out in, they usually turn out just fine in the end, experts say. One factor that may help things along is a part-time job during the teen years, according to Dennissen. He and his colleagues found that such work experience led to lower levels of aggressiveness among both over- and undercontrolled kids. With the early job experience, teens learn some of life's rules, such as that aggression generally doesn't pay, Dennissen explains.

One thing that isn't clear from the new study is whether actual personalities were changing with time — or just behaviors.

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Even though behaviors, such as shyness, appear to change as kids get older, the underlying personality may remain the same, says Jerome Kagan, an emeritus professor of psychology at Harvard University. So someone may remain an introvert on the inside but work at being more outwardly sociable.

An earlier study by Kagan and his colleagues used MRI scans to show that the brains of young adults who were identified as shy when they were toddlers worked differently than those who had been more extroverted as kids.

Kagan faults the new study for not looking at the impact of social class on behavior. Kagan, who has spent a lifetime studying whether personality changes with age, says that a host of factors, including class, can make a huge difference in how kids mature.

Kids from middle- and upper-class homes realize pretty quickly that they are from a privileged class, Kagan says. This gives them confidence. Those from poor and/or blue collar homes may become angry at their starting place in the world and that can lead to more aggression.

Other researchers believe that brain wiring — and hence personality — may actually change depending on what types of experiences people have as they grow up.

It's quite possible that life events change the brain's biology, says Rebecca L. Shiner, an associate professor of psychology at Colgate University and an associate editor of the *Journal of Personality*.

"There may be genuine changes at the biological level," Shiner says. "We don't yet know enough about that. The research out there suggests that there is moderate stability to personality by the time we reach age 3, but also that tremendous change occurs even up until the 50s. We need to figure out what causes change."

### **Rounding off the 'sharp edges'**

Parents should understand that just because kids start out over- or undercontrolling doesn't mean they can't succeed in life, says Daniel Hart, a professor of psychology and director of the Center for Children and Childhood Studies at Rutgers University.

By taking the time to teach overcontrolling kids social skills that seem to come naturally to the more resilient ones, parents can help their children overcome, or at least compensate for, shyness, Hart says. In the same way, undercontrollers can be taught to rein in their emotions and be more sensitive to others.

"There are studies that show you can round off the sharp edges of personality," Hart says.

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### **More women opting for preventive mastectomy - but should they be?**



Rates of women who are opting for preventive mastectomies, such as Angeline Jolie, have increased by an estimated 50 percent in recent years, experts say. But many doctors are puzzled because it doesn't carry a 100 percent guarantee, it's messy, and women have other options, from a once-careful monitoring.

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# ***A Validation Study of a Commonly Used Military Assessment of Personality Interactional Patterns***

Susan J. Walley, MSW  
COL (Ret) Kyle L. Pehrson, MS, USAR  
Patrick T. Panos, PhD

## **ABSTRACT**

Military leaders and trainers often use assessments developed within the civilian business sector in order to determine interactional patterns and personality traits that may affect the operational effectiveness of their unit. Unfortunately, validity and reliability studies with these instruments are rarely conducted to determine if they are appropriate for use by the military. This study seeks to determine if the Persogenics™ Personality Profile, an assessment which is currently being used by many military commanders, is an effective method of enhancing mission accomplishment. Recommendations for future studies are made.

## **INTRODUCTION**

Individual behavioral patterns affect every military interaction and relationship. These patterns have been examined empirically to predict success among military leaders.<sup>1</sup> Some researchers have asserted that an understanding of one's own interactional patterns as well as those of others can be a significant asset to the US military in the training of command personnel.<sup>2</sup> Consequently, several mental health and organizational behavior measures have been used in military training to assess personal traits and interactional patterns.<sup>3-6</sup> One such measure that is currently being used by each branch of the Department of Defense is the Persogenics™ Personality Profile.<sup>7</sup>

Like many of the other measures mentioned above, the Persogenics profile was an instrument originally developed for use within civilian business administration training which has subsequently been incorporated as a training tool within the military. In examining the use of personality and/or interactional profiling systems in training military personnel, the researchers of this study identified several instances where the Persogenics profile is used. For instance, according to Jim Batman, Senior Corporate Trainer for the Persogenics Corporation who conducts workshops within the Department of the Air Force, the "Persogenics Personality Profile" is a valuable tool that has been well received and utilized. Training

sessions have been held in various sections including personnel, engineering, services, hospitals and clinics, base command staff, and across all ranks. He believes the program helps improve team relationships, workplace skills, people skills in general, and conflict resolution through an increased understanding of individual strengths and weaknesses.

In conducting this research, the authors were able to quickly identify two representative samples of military clients who have utilized the Persogenics in their training activities: COL David Bird, Randolph Air Force Base, and COL Richard Mihalika, Wright Patterson Air Force Base.

When interviewed, COL Bird stated that he has been aware of the Persogenics system for 9 years and that he has actively used the system for the past 5 years in his capacities as squadron, group, and now wing commander. He reports the Personal Profile and the Persogenics system has taken him and his command teams to a higher level of teamwork. He acknowledges the past use of the Myers-Briggs Type Indicator as a tool to identify how his personnel screened, processed, and filtered information, but he reports the Persogenics system is superior as it teaches "how" to communicate and get a picture of the "output kind of behavior" each individual demonstrates. He views the identification of individual strengths and weaknesses as a "godsend," especially when dealing with pressure, stress and

## ***A Validation Study of a Commonly Used Military Assessment of Personality Interactional Patterns***

tension (PST). PST is a particular insight taught in the training sessions and identified as “behavioral shifting” or “backup behaviors.”<sup>7</sup>

COL Mihalika stated in interview that he utilizes the Personal Profile and the “Nutshell Summary,” (a brief printout that compares the interactional patterns between two individuals) at each entry interview with incoming officers and civilians who report directly to him. He makes the profile available to them in order to have it filter throughout the command. Although he views the instrument as no better or worse than others, he too views the Persogenics Personality Profile as a step beyond the Myers-Briggs in that it allows better articulation of interactional patterns. He views the profile and implementation system as extremely useful tools in establishing a more effective work environment, as it permits increased understanding of communication styles. He reports that the Persogenics system has become a part of the daily lexicon of his staff, increasing acceptance among differing personality styles and enabling communication without the level of offense previously seen in daily interactions. For COL Mihalika, the Persogenics Profile impacts mission accomplishment in two specific areas. First, it establishes and reinforces communication as a priority in management planning. Second, it assists subordinates to adapt to the differing communication styles of their commanders, an especially valuable benefit in the hierarchical system of leadership in the military where most personnel are in direct supervision. COL Mihalika finds the personality profile to be highly functional in these areas of communication

It is clear, therefore, that because of the strong anecdotal support for their use, civilian nonclinical personality assessments are being used by military leaders in an effort to increase their administrative effectiveness. Further, there is an assumption on the part of these military leaders that the tools developed for use within the civilian sector provide equally valid results when used within the military. Unfortunately, this is an assumption that has never been tested with many of these personality profiling tools, despite their common use. Since military leaders are using personality assessments developed outside the military setting, the authors of this study sought to examine the appropriateness of the use of these assessments. In particular, the authors sought to study the validity of

the Persogenics Personality Profile, an assessment that was identified as currently in vogue among many military leaders. Specifically, this study examined the Persogenics profile within the context of 4 fundamental questions that arise when using such assessments for this population:

1. Is the test appropriate or suitable for the military population?
2. What does the assessment measure or what purpose will it serve?
3. Is it quickly administered and immediately scored?
4. Are the results easily interpreted and of benefit to both the administrator and the subject?

In order to address the appropriateness of the profile for the military population, the prevalence of 4 interpersonal behavioral patterns among military and civilian personnel was compared with the profile patterns among the general population and the differences noted. An overview of the Persogenics Personal Profile is given to assist the reader understand the dimensions measured by the assessment and stated purposes of the Profile. Fundamental questions unanswered by the Persogenics Corporation regarding the Personal Profile are also discussed. An overview of 4 nonpathological assessment instruments previously used in military studies are also be examined for comparative purposes.

### **LITERATURE REVIEW**

In order to place the use of the Persogenics Personal Profile within the military into context, a brief review of relevant literature addressing various instruments that have historically been used in military leadership development is presented.

#### **Myers-Briggs Type Indicator**

According to CPP, Inc. (formerly Consulting Psychologists Press), the most widely used personality type assessment model in a nonclinical population is the Myers-Briggs Type Indicator (MBTI).<sup>8</sup> This 93 question instrument consists of 4 perception scales, each represented by 2 opposite preferences. The Extraversion/Introversion scale measures a person's preference for where attention is paid, either to the inner world or the outer world. The Sensing/Intuition scale describes the way a person acquires or perceives

information. The Thinking/Feeling scale defines the way a person uses information to make judgments or decisions. The Judgment/Perception scale indicates the kind of method through which a person processes information about his or her environment, with judgmental (thinking or feeling) or perceptive (sensing or intuition).<sup>9</sup>

The Myers-Briggs instrument is “primarily concerned with the valuable differences in people that result from where they like to focus their attention, the way they like to take in information, the way they like to decide, and the kind of lifestyle they adopt”<sup>9(p4)</sup> and is based on the work of Carl Jung and his theory of psychological types.<sup>10</sup>

Campbell studied personalities, vocational interests, values, and raw intelligence scores of senior military leaders in a search to describe their underlying personality traits.<sup>3</sup> He compared Army brigadier generals, high-level corporate executives, and a control group sample of managers and technical workers from government, education, and public service organizations. His findings, based on Myers-Briggs and other assessments, led to the promotion of what he called a “notable personality syndrome — the aggressive-adventurer.”<sup>3(p167)</sup> This characterization of military leaders discounted them as potential warmongers unless an intervening emphasis on education and democracy were available to mediate the tendencies. Two findings of interest from this study include the fact that none of the sample populations were distributed evenly across the 16 preferences, and 2 types, Introversion/Sensing/Thinking/Judging and Extraversion/Sensing/Thinking/Judging, represented more than 56% of the brigadier general sample. Additionally, in Campbell’s opinion, “This lack of individual differentiation is one of the features that is absent from the MBTI.”<sup>3(p157)</sup> In other words, the characterization of top military leaders as serious, orderly, matter-of-fact, logical and take-charge realists who are steady in the face of protest or distraction “tells something about the psychological feel of the military environment.”<sup>3(p159)</sup>

Barber utilized the Myers-Briggs in his study of 270 students entering the US Army War College in order to provide additional insights into the psychological characteristics of senior military leaders.<sup>2</sup> The military population consisted primarily of Army lieutenant

colonels and colonels, although some students were from other military services and foreign countries or civilian government agencies. The study included a control group from the general population. Based on the results obtained using the Myers-Briggs, 53.5% of senior military officers were distributed in just 2 of the 4 psychological types, Judging and Thinking. A significant difference between the civilian and military populations was found; leading Barber to interpret the findings, as did Campbell,<sup>3</sup> to indicate that senior military leaders are comparatively more Thinking and Judging types than the general population.

Murray and Johnson, using the Myers-Briggs, studied female Naval Academy midshipmen in an attempt to determine if the instrument was a useful predictor of subsequent student success.<sup>1</sup> Although their study found the Myers-Briggs “not especially useful as a tool for predicting success among women at the Naval Academy,”<sup>1(p893)</sup> other findings of the study helped to identify which Myers-Briggs types were more likely to submit voluntary resignations from the Naval Academy. The study also revealed that women at the Naval Academy have only slightly higher rates of extroversion than women at other colleges. The use of a different personality inventory was recommended for future research.

### **Fundamental Interpersonal Relations Orientation-Behavior**

The 54 item Fundamental Interpersonal Relations Orientation-Behavior (FIRO-B) instrument assesses how personal needs affect a person’s behavior towards others. Based on the interpersonal behavior theory of William Schultz,<sup>11</sup> this three-dimensional instrument measures 3 basic needs: Inclusion, the degree to which a person seeks contact from others; Control, the extent of power or dominion that a person seeks and desires from others; and Affection, the amount of closeness sought or desired. The 3 basic needs are defined in 2 dimensions, expressed behavior and wanted behavior.<sup>12</sup>

Shortridge used the FIRO-B in his study of 134 disabled Vietnam veterans attending postsecondary education programs in order to determine differences in the needs for inclusion, control, and affection among combat and noncombat disabled veterans.<sup>6</sup> In this study, disabled noncombat veterans were found to

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be better equipped to demonstrate inclusive behaviors than disabled combat veterans and to express and want affection from others more than those disabled in combat. Although expressed or wanted control behaviors did not differ between the two groups, it became clear that soldiers who were disabled while experiencing the horrors of combat retreated from interpersonal involvement in society in greater numbers than their noncombat comrades. The findings of this study helped to identify interpersonal adjustment difficulties experienced by combat veterans.

### **Millon Index of Personality Styles**

The Millon Index Personality Styles (MIPS) Revised instrument, originally developed by Theodore Millon in 1994 and revised in 2003, is described as “a brief, well-rounded personality measure for adults presenting as normal”<sup>13</sup> which consists of 180 true/false questions. It addresses 3 key dimensions of normal personalities: Motivating Styles, which assess a person's emotional style in dealing with the environment, Thinking Styles, which examines a person's mode of cognitive processing, and Behaving Styles, which assesses how a person interrelates with others.

Beckman et al used the MIPS to evaluate personality characteristics of 72 US Navy divers, both enlisted personnel (65) and officers (7).<sup>5</sup> The top 5 personality styles found in the divers were Enhancing, Modifying, Individuating, Thinking, and Controlling. The study authors found these traits very adaptive to the demands of diving duty where the following qualities are often present: independent decision making, easy adaptation to changing operational needs, the ability to survive in dangerous situations, and the tendency to put personal safety first in order to fulfill mission requirements. The findings appear to support a relationship between personality style and occupational types. This finding led the authors to propose “consideration of psychometrically sound psychological tests in screening personnel for specific types of military service.”<sup>5(p35)</sup>

### **Eysenck Personality Questionnaire-Revised**

The Eysenck Personality Questionnaire-Revised (EPQ-R) measures 3 dimensions of personality and is the most recent in the series of measures originally developed by Hans Eysenck, who initially described 2

main dimensions of temperament: neuroticism-stability and extraversion-introversion.<sup>14</sup> Eysenck added a third dimension, psychoticism/socialization, after he determined a need for a third category of temperament. The primary advance in the revision is to include the name modification of Tough-Mindedness in the third major dimension. This revised scale deals with normal behaviors which become pathological only in extreme cases. The traits measured are P (Psychoticism or Tough-Mindedness), E (Extraversion), N (Neuroticism or Emotionality), and L (Lie). The questionnaire contains 57 items.

The EPQ-R was used in a study conducted by Leach to determine if any specific personality traits predispose military personnel to be captured and imprisoned during war.<sup>4</sup> The questionnaire and other assessments were administered to 75 Air Force crewmen prior to an escape and evasion exercise. This procedure was performed in order to assess whether personality factors correlated with capture and consequent internment as a prisoner of war. Although the variables of age or length in military service showed no correlation, significantly high levels in the EPQ L scale were found in the captured crewmen. As was the case in the proposal of a new personality syndrome by Campbell<sup>3</sup> above, Leach identified a possible core personality profile that exists prior to capture and noted that this predisposition may be “masked by a modified post experience profile.”<sup>4(p80)</sup>

### **Persogenics™ Personal Profile**

The Persogenics Personal Profile was originally developed through collaboration by Dr Gordon Allport and Dr Ford Cheney. It contains 24 questions and can be completed in a short time period, usually less than 20 minutes. The profile for each individual participant is scored in less than 5 minutes by a computer program prior to training, in order to provide results for each participant to use throughout the training sessions. Allport, an early personality researcher, created the “Most/Least” facets of the personality assessment model through his original work classifying a wide variety of personality traits.<sup>15</sup> Allport's technique listed multiple trait descriptive adjectives and then had participants rate each adjective on the degree to which the words applied “most” or “least” to them. Dr Ford Cheney and 11 colleagues then formed Keystone Research Labs in 1968 and began to study personality profiling, building on Allport's pioneering personality

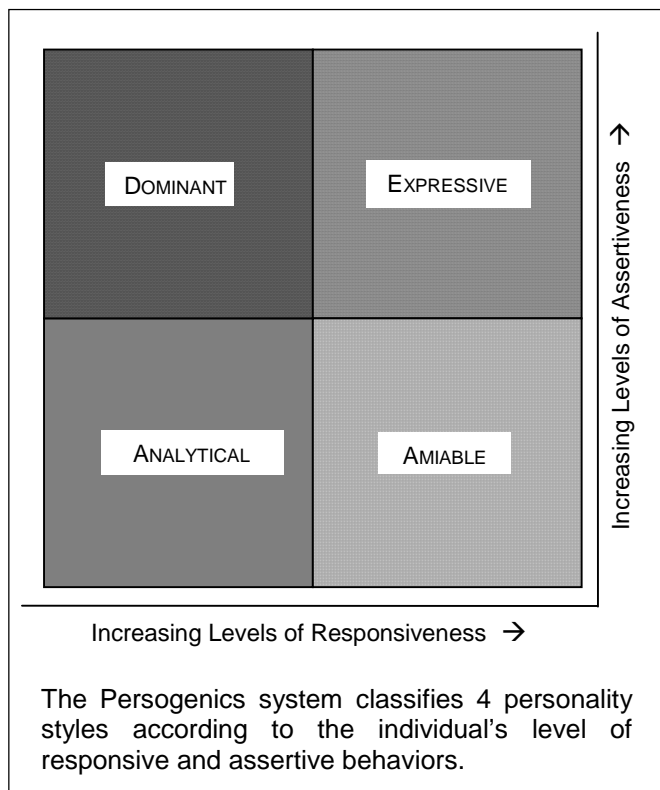
research. The group also determined that the validity of the Allport technique could be increased by including predictions of behavior on 2 scales. The first of these, the Assertiveness Scale, measures the degree to which an individual is willing to express his or her needs, wants, and opinions. The second, the Responsiveness Scale measures the degree to which an individual is willing to share feelings or personal information.<sup>16</sup>

The basis of the Persogenics system is 4 different personality styles as illustrated in the figure. The first style, “Dominants” exhibit high-assertive and low-responsive behaviors. This means they possess a primarily outspoken nature, but seek to maintain control over the personal feelings and information that they communicate to others. “Expressives” naturally exhibit high-assertive and high responsive behaviors. This means they communicate assertively, and are more open in their gestures and expressions than the other styles. “Analyticals” are by nature less assertive and less responsive in their behaviors than the other styles. This means they are reserved in the way they express themselves and that they are controlled in their outward gestures and actions. “Amiables” are naturally low-assertive and high-responsive in their behaviors. This means that they are not forceful in their communication, but they do outwardly show concern and understanding for others. Amiables are people-oriented and team-oriented. They are concerned with the happiness and satisfaction of all.<sup>17</sup>

Every person is a unique combination of the four styles. The system measures for each person which one of the styles is strongest; this is called their “primary” style. The second strongest personality style is called then “secondary” style. The 2 lowest scoring styles are relevant to the scoring, but typically not reported. Since every person has at least some component of each style, the lowest scoring two remain a valuable part of the assessment. The 2 highest scoring styles make up a personality name, such as Dominant-Expressive. The Persogenics Corporation also claims that the 4 styles are consistently distributed in the general population, regardless of nationality, education, gender, or age: approximately 12% Dominant, 19% Expressive, 37% Amiable, and 32% Analytical.<sup>18(p8)</sup>

As mentioned previously, the Persogenics Profile is currently being used with military populations. It is

useful to reexamine the aforementioned fundamental questions regarding the utility of the Persogenics Personal Profile. Namely, has it been shown to be as relevant for the military population as the Persogenics Corporation purports? To answer this question, differences between the core users of the instrument, the business community, and military populations should be explored, as the Persogenics Corporation promotes itself as impartial and “neutral with respect to gender, race, culture, religious orientation, etc.”<sup>7</sup> Will an assessment that measures interactional patterns based on the dimensions of assertiveness and responsiveness serve a useful function for military leaders, mental health professionals, and personnel completing the instrument? Further, will the time invested in administering and scoring the instrument provide benefits to the individual soldier, administrator, and overall mission of the military? To begin the search for answers to these 2 final questions, the self-reported accuracy rates of military and nonmilitary populations were compared and differences between the accuracy rates purported by the Persogenics Corporation were examined.





## METHODOLOGY

The design of this study was a secondary analysis of a database set that contains demographic information and completed Personal Profiles for 114 military and 277 civilian subjects.

The median ages of subjects ranged from 36 to 45 and included 167 males and 224 females. Race categories included Caucasian, African American, Hispanic Latino, Native American, Pacific Islander, and Other. The subject populations included 114 military personnel and 147 civilians from Randolph Air Force Base, Texas, 69 school district employees from Marysville, Washington, and 61 personnel from the police department in Albany, Oregon.

## DATA ANALYSIS

The Statistical Package for Social Sciences (SPSS 13.0) was used to analyze the data provided in the database. The purpose of the analysis was to determine the validity and reliability of standardized interpretations of personality styles by examining if there was a significant difference in the rate of

personality styles that occur in both military and civilian participants within this study, with the reported baseline rates within normative data provided by Persogenics Corporation.<sup>7</sup> Additional comparisons were made to determine the stability of baseline rates of reported personality styles of participants and the normative data according to gender, race, and age. Finally, a comparison was made between the reported accuracy of the personality style findings by participants in this study with the reported accuracy of personality styles given within the normative data.

## RESULTS

The Persogenics Corporation website<sup>7</sup> claims that the occurrence of each of the 4 personality styles is equally proportional (Dominant = 12%; Expressive = 19%; Amiable = 37%; Analytical = 32%) across the general population regardless of demographic factors. In order to determine if the military population also reflects this distribution, a cross tabulation of general style was performed using the Pearson Chi-Square Goodness of Fit test.<sup>19</sup> Tabulated data used in this calculation are shown in Table 1. It was found that there are statistically significant differences ( $\chi^2 =$

Table 1. Tabulated data used in the Pearson Chi-Square Goodness of Fit test<sup>18</sup> to determine if the military population reflects the normal distribution of personality styles<sup>7</sup>

Style		Civilian	% Total Count	Military	% Total Count	Total	% Total Count
Dominant	Count	44	11.3	17	4.4	61	15.6
	Expected Count	43		18		61	
Expressive	Count	98	25.1	40	10.3	138	35.4
	Expected Count	97.3		40.7		138	
Amiable	Count	76	19.5	39	10.0	115	29.5
	Expected Count	81.1		33.9		115	
Analytical	Count	57	14.6	19	22.4	76	19.5
	Expected Count	53.6		22.4		76	
Total	Count	275	70.5	115	29.5	390	100
	Expected Count	275		115		390	

Chi-square ( $\chi^2$ ) = 1.913  $p < 0.05$

1.913;  $p < 0.05$ ) between the business population that make up the Persogenics normative distributions and the military/civilian subjects in our database. Therefore, our sample appears to have a unique distribution.

## Military Sample Results

Persogenics Corporation reported no difference between the distributions of personality styles between

Table 2. Distribution of personality styles by gender within the military sample

General Style	Female	Male	Total
Dominant	9	7	16
Expressive	24	16	40
Amiable	15	24	39
Analytical	9	10	19
Total	57	57	114

Chi-square ( $\chi^2$ ) (3, N = 114) = 3.980  $p < 0.264$

Table 3. Distribution of personality styles by race within the military sample

General Style	Caucasian	Other	Total
Dominant	0	3	3
Expressive	2	5	7
Amiable	7	4	11
Analytical	4	0	4
Total	13	12	25

Chi-square ( $\chi^2$ ) (3, N = 25) = 9.078  $p < 0.05$

Table 4. Distribution of personality styles by age group within the military sample

General Style	Age Range					Total
	18-24	25-35	36-45	46-55	56-65	
Dominant	4	4	4	2	0	14
Expressive	8	20	12	0	0	40
Amiable	5	15	11	7	1	39
Analytical	4	5	9	1	0	19
Total	21	44	36	10	1	112

Chi-square ( $\chi^2$ ) (12, N = 112) = 15.341078  $p < 0.223$

the genders in their normative distribution.<sup>7</sup> A comparison of the genders within our military sample, using the Chi-Square Test of Independence test, is shown in Table 2. No statistical difference ( $X^2 = 3.980$ ,  $p = .264$ ) was found between the expected Persogenics distribution and our military sample based upon gender.

Persogenics Corporation also reported no difference in the normative distributions of styles due to race.<sup>7</sup> Unfortunately, our military sample (Table 3) was too small to make such a comparison based upon specific racial differences. However, it was of sufficient size to allow comparisons to be made between Caucasians and non-Caucasians, in which we found a significant difference within the military sample using the Chi-Square Test of Independence.

The final comparison within the military sample relates to the Persogenics report that there are no differences between age and personality style in their normative population.<sup>7</sup> A comparison of proportion of styles reported by the Persogenics Corporation and age within our military sample is shown in Table 4. No statistical difference ( $X^2(12, N=112) = 15.341$ ,  $p = .223$ ) was found between the expected Persogenics distribution and our military sample based upon age.

## Civilian Sample Results

A comparison of the genders within our civilian sample, using the Chi-Square Test of Independence test, is shown in Table 5. Unlike the findings in our military sample, a statistical difference ( $X^2 = 14.793$ ,  $p < 0.05$ ) was found between the expected Persogenics distribution and our civilian sample based upon gender, a finding that suggests that civilian population in the study differs from the normative Persogenics business population and our military population.

A comparison between subjects based on race was conducted on the civilian sample using the Chi-Square Test of Independence and is reported in Table 6. No statistical difference ( $X^2 = 12.716$ ,  $p = .624$ ) was found between the expected Persogenics distribution and our civilian sample based upon race. In addition, a comparison between civilian subjects and all race categories found no significant differences.

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Table 5. Distribution of personality styles by gender within the civilian sample

General Style	Female	Male	Total
Dominant	16	28	44
Expressive	61	35	96
Amiable	54	22	76
Analytical	32	24	56
Total	163	109	272

Chi-square ( $\chi^2$ ) (3, N=272) = 14.793  $p < 0.05$

Persogenics distribution and our civilian sample based upon age.

### Accuracy Results

Client accuracy results are reported by the Persogenics Corporation to fall between 87% and 93%.<sup>7</sup> A Single Sample *t* Test compared the mean accuracy of the sample to the Persogenics average, 90%. A significant difference was found ( $t_{(375)} = -6.342$ ,  $p < 0.05$ ). The sample mean of 86.8% was significantly smaller than the Persogenics reported mean of 90%.

Table 6. Distribution of personality styles by race within the civilian sample

General Style	Race Classification						Total
	White	African American	Hispanic or Latino	Native American	Pacific Islander	Other	
Dominant	35	1	2	2	0	0	40
Expressive	64	5	7	3	1	1	81
Amiable	46	3	4	0	0	3	56
Analytical	32	1	5	0	0	2	40
Total	177	10	18	5	1	6	217

Chi-square ( $\chi^2$ ) (15, N = 217) = 12.716  $p < 0.624$

### DISCUSSION

The study's positive correlated findings regarding the gender and ages in the military subjects and the normative business population suggest that many similarities do exist between the two populations and that the profile would be relevant for use within military populations.

Table 7. Distribution of personality styles by age group within the civilian sample

General Style	Age Range					Total
	18-24	25-35	36-45	46-55	56-65	
Dominant	4	10	13	19	0	46
Expressive	9	26	29	21	2	87
Amiable	5	18	22	29	4	78
Analytical	4	10	24	21	1	60
Total	22	64	88	90	7	271

Chi-square ( $\chi^2$ ) (12, N=271) = 12.353  $p < 0.418$

A comparison between subjects based on age was conducted on the civilian sample using the Chi-Square Test of Independence within our civilian sample and is shown in Table 7. No statistical difference ( $X^2 = 12.353$ ,  $p = .418$ ) was found between the expected

The statistical difference ( $X^2 = 1.336$ ,  $p < 0.05$ ) noted in the collapsed race category and the Persogenics distribution suggest that the instrument may not be completely neutral regarding race. However, it should be noted that in both civilian categories (collapsed and with all race variables), no significant differences between the civilian sample and the expected Persogenics distribution was found. This finding therefore suggests that the instrument may not be valid within the more racially mixed military setting. Unfortunately, there is currently insufficient data upon which to make this determination.

Therefore, further research is needed before commanding officers can accept Persogenics profiles as accurate, particularly among their troops belonging to a racial minority. Research should continue focusing

on the validity and reliability of this instrument and then on the replication and extension of the findings in this study with larger samples of military and civilian populations. Based on the ambiguous results of the small military sample, further studies should be conducted with a larger sample to determine if the significant finding in the race category is substantiated.

Additionally, the finding of a significant difference between gender in the civilian population and the Persogenics distribution raises additional concerns regarding the neutrality of the test.

Further studies comparing interactional patterns between officer and enlisted ranks should be considered and the potential to consider screening personnel based on interactional patterns for compatibility with specific military jobs may also be a future consideration.

Studies to assess direct and tangible benefits to military personnel will be necessary in the future to assess the impact of the Personal Profile and the Persogenics system in the areas of interactional dynamics, productivity, communication, and mission accomplishment. Based on the views of military leaders already using the Persogenics system and recommendations from cited studies, nonclinical personality assessment is a desired tool that fulfills a command need. Therefore, careful research must be conducted to ensure that the military leaders who use personality profiling receive accurate and reliable information that is appropriate for use in the military.

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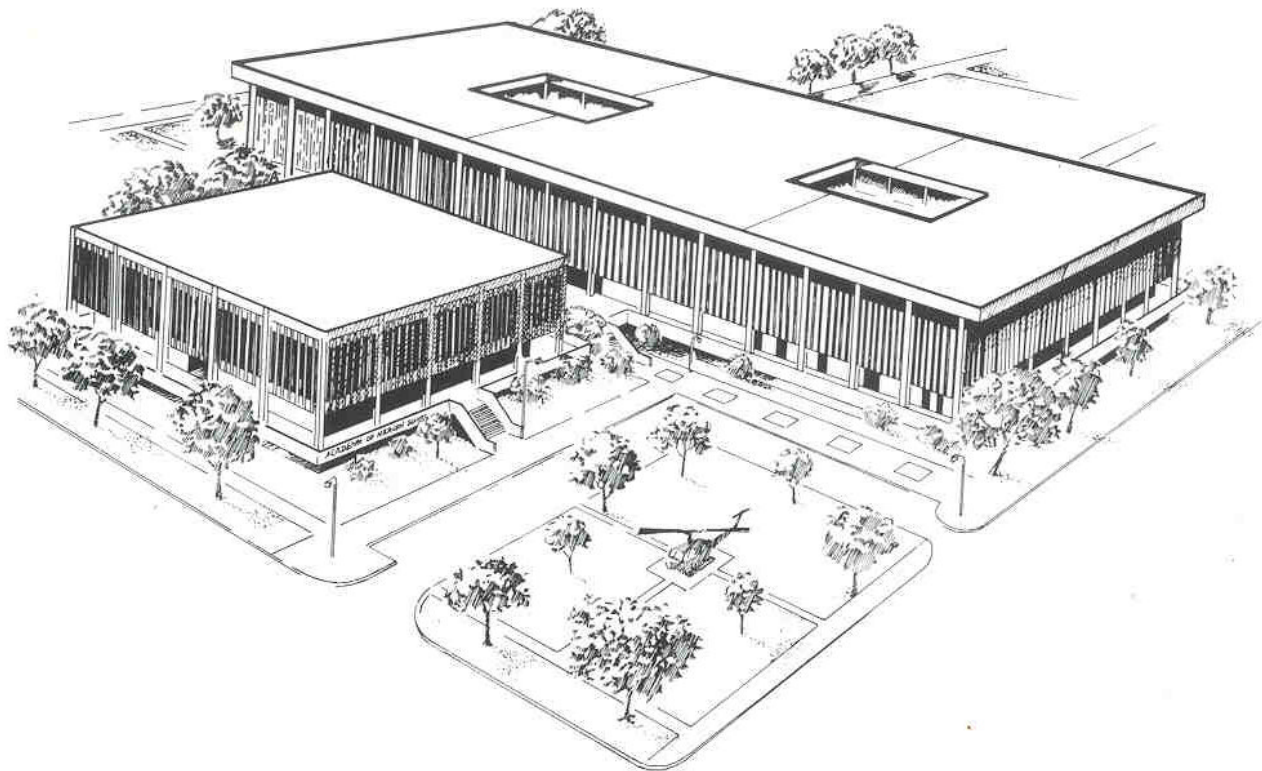
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