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**Style Learning Strategies for Students**

**THE HIGHLANDS PROGRAM**

DE **TABLE OF CONTENTS**

NN

INTRODUCTION....... **INSTRUCTION**S...

...*..*.. RANGES OF SCORES. **VERBAL MEMORY**

. DEFINITION.....*..*.

SUGGESTIONS FOR *M*AXIMIZING.............. **WORKING WITH SUPPORTING ABILITIE**S...*...*...

SUGGESTIONS FOR COMPENSATING............... TONAL MEMORY

**DEFINITIO**N..................................*...*. SUGGESTIONS FOR MAXIMIZING.......... **WORKING WITH SUPPORTING ABILITIES**.....*..*.

SUGGESTIONS FOR COMPENSATING. DESIGN MEMORY

**DEF**INITION....... SUGGESTIONS FOR MAXIMIZING........... **WORKING WITH SUPPORTING ABILITIES**.......

SUGGESTIONS FOR COMPENSATING....... **RHYTHM MEMORY**

**DEF**INITION......*..*. SUGGESTIONS FOR MAXIMIZING.......... **WORKING WITH SUPPORTING ABILITIES**...*...*...

**SUGGESTIONS FOR COMPENSA**TING... NUMBER MEMORY

**DEFI**NITION.. SUGGESTIONS FOR MAXIMIZING. **WORKING WITH SUPPORTING ABILITIES.**

..*....*. SUGGESTIONS FOR COMPENSATING..... NON-SPECIALIZED VOCABULARY. .

: DEFINITION............

SUGGESTIONS FOR IMPROVING.... PERSONALIZED STUDY ST**RATEGES**

INSTRUCTIONS............. GUIDE...*.*.

36

.

.......... *3*7

38

**40**

... 42

...rino 43

.....44

\*\*\* 45

**48**

. 51

**USING THE HIGHLANDS ABILITY BATTERY**

**LEARNING STRATEGIES WORKBOOK**

**INTRODUCTION**

Much study ha**s gone into the learning process, how we go about taking in and retrieving information**. Multiple **factors influence this process, some of which are motivation, intelligence, self-esteem, stamina, attention span, long- and short-term memory, environment, interests,**

f o**rigin influences, values, and the natural a**bilities. **The Highlands Program Learning Strategies looks at leaming as it relates to the natural abilities assessed in The** Highlands Ability **Battery, and especially as it relates to those abilities we identify as learning channels**..

**The descriptions and recommendations contained in this workbook are based on the cumulative experience of ov**er 6,000 ad**ministration**s of The Highlands Ability **Battery given nationwide .** since 1992. We though**t you might be able to utilize this information, and we wanted to share it with you.**

**Natural abilities are different from what we usually mean by intelligence, or 1.Q. In fact, the correlation between individual natural abilities and intelligence scores is generally limited, so we do not assume anything about intelligence levels from the ability scores. The learning channel ability scores relat**e only to how quickly and easily a **person can take in and recall information in a particular channel. How one interprets and uses this information is a function of other factors** such as additional abilities, **achievement, intelligence levels, and experience.**

**Learning Strategies focuses primarily on the five separate learning channels tested by the Ability Battery: Verbal Memory, Tonal Memory, Design Memory, Rhythm Memory, and Number Memory. We have given special attention to Verbal and Tonal Memory because of their relative importance in most learning situations. Other dimensions addressed are combination**s of abilities which **can enhance or detract from a person's ability to take in new information, and the important r**ole that Non-**Specialized Vocabulary plays in learning through any of the channels.**

**The three main benefits of using the THP Learning Strategies are:** 1. to aid you in f**urther personalizing and interpreting your THAB bar chart.** 2. to help you cl**early understand how to maximize an**d support your learning abilities and to

**compensate for possible obstacles to their best use. 3. to give you practical strategies for applying this information.**

*.*

***It is important to remem****ber that one way we all learn is through experience, and for some, this is the most powerful* ***learning*** *strateg*y*. We assume that everyone is using this learning channel to some degree, but the question is, what happens if one or more of the learning channels is moderate to strong? If this is the cas*e*, we usually learn to rely on those c****hannels whenever*** *possible. The two le****arning channels most widely used in academic settings are*** *Verbal Memory (reading) and Tonal Memory (listening). If at least one of these is moderate to strong, relative to the other* ***channel****s, most students find they gravitate to study methods that capitalize on this strength. However, the most efficient use of our learning abilities is to* ***become awar****e of how they work, bow they combine to support each other, and to learn to use all of them. That is the focus of this workbook If a lea****rning chann****el is in the limited range, that does not mean you can't learn using that channel. It means that it* ***may take more time an****d/ or effort to pick up information through that channel. To be most efficient in your study* ***habits, it is best to use al****l of the f****ive learning channels, bu****t spend most of* ***your study tim****e using your primary* ***learning chann****els. For example, if you are s****trong*** *in verbal memory and limited in tonal memory, you can take notes and tape a lecture. You would want to use the tape to fill in your notes but spend most of your time reading* ***and re-reading your*** *notes rather than listening to the tape over and over.* **It should be noted that one of the less frequently used leaming chann**els Design Memory, **Rhythm Memory, and Number Memory) may be your strongest. If this is the case, it is particularly important that you recognize this and learn strategies to capitalize on that strength.**

**Finally, some clients find that of the five leaming channels measured** in THAB, all are in the **limited range. Of course, this does not mean that you cannot learn. It just may mean that you have to be more focused when you are required to learn new material. We will show you exactly how to do that in this workbook. In Summary, we all learn best by: 1. relating new learning to past learning or experiences. For example, we ask ourselves, (either**

**consciously or unconsci**ously), “how does th**is fit into what I already know?"** 2. utilizing multiple learning channels whenever possible instead of relying on only on**e learning**

**channel.** This workbook will take you through each of the l**earning channels, show you what your scores mean f**or you, and give you specific **strategies and techniques for making optimum use of your natural l**earning abilities. **Knowing how to best use you natural** abilities to **take in new information enables you to choose wisely about academic environments and to be an advocate for yourself in various leaming situations.**

**INSTRUCTIONS FOR USE**

**These instructions are inten**ded to help y**ou do something different from what you have been doing about learning new information--to give *y*ou a new way to use your natural learning : abilities. They are designed to put you more in charge of your own leaming process b**y helping

**you make the best use of the learning channels assessed on your H**ighlands Ability **Battery. We suggest the following format to help you organize and use this material to your best advantage.** You will need you**r Ability Battery report and your bar chart to get started.**

To begin, get the **Ability Scores Worksheet from your Worksheet Pad. Your scores will**

**- limited, moderate, and strong (see page 6). Record all of your abilities, indicati**ng which of **the 3 ranges each score falls into - limited, moderate or strong. For exampl**e, look at your Idea Prod**uctivity score. Now look at the Ranges of Scores (pa**ge ). **Does your score fall into the limited range? The moderate range? Or the strong range?** You will notice on page 6 that Idea Productivity onl**y gives you 2 choices, limited or strong. However, if your score is somewhere in a moderate range (**36-64) **write moderate on your worksheet. To clarify, a person who is in the moderate range will have a press to use Idea Productivity; however, the number of ideas generated at any given time will be moderate compared to a person in the strong range. This is also true for Classification.**

Next, look b**ack at the Ability Scores Worksheet and note the scores on the five learning. channels—Verbal Memory, Tonal Memory, Design Memory, Rhythm Memory, and Number Memory—and also your Non-Specialized Vocabulary score. These categories indicate whether an ability comes quickly and easily for you or if you need to plan extra time for studying.**

**• Record these scores and ranges on the worksheets provided. (Example for Verbal Memory**

**Worksheet,** “My score: 40, Range: Moderate”).

*(Keep in mind that a score in the limited range does* ***not mean that you cannot u****se an ability, just that the lo****wer*** *the score the more time and energy needed to take information in through that channel. If all your* ***learning*** *channel scores are in the low range, your strongest learning strategy is for you to incorpo****rate as many of your Learnin****g channels as possible at one time. Although this can take more time, you can do top quality wor*k*. The suggestions for using each of the learning channels are intended to help you increase your skill in taking in and* ***retrieving informat****ion. These suggestions can benefit you regardless of your scores.)*

**After you have recorded your scores, go through the workbook, looking at each learning channel, and use the following procedure with each.**

**1. DEFINE First, read the definition to make sure you are clear about what kind of information is taken in through that channel. (You may also want to review the section in your report on each of the channels.) Write the definition in your own words on your worksheet.**

**2. MAXIMIZE Then go over Suggestions for Maximizing your use of this channel and check those suggestions that seem to fit you best. If your score is in the strong range, or even if it is limited, try experimenting with most of the ways to maximize this ability. Write in the maximizers that you think are most useful to you on your worksheet.**

**3. SUPPORT Next, look at the section entitled Working with Supporting Abilities. This section suggests ways other abilities strengthen this channel and help it perform at its best f**or you. You will **need to keep your Ability Scores Worksheet handy to check other ability scores. Go through the questions and check the ones th**at apply to you. By now you'll be **getting ideas about how your abilities can support and strengthen each other. You may come up with some creative ideas ab**out this all on y**our own! Record your ideas on the worksheets.**

**4. COMPENSATE**

Finally, go to the section called Sug**gestions for Compensating, read through the questions, and check those that apply to you. There are suggestions after each question to help you overcome some of the ways abilities can compete with each other and make learning more difficult. There are ways to compensate for the distracting quality of ot**her abilities **and our suggestions may help you to create some of your own. Record these ideas on the worksheets 5. QUESTIONS FOR CONSIDERATION At the end** of the L**earning Strategies Workbook are some Questions to Considet. A Personalized Study Strategies Guide is included with suggestions as to what Ability scales to consider when answering the questions. Maybe you now have some additional ideas that we have not t**hought of. Add those...

**Note: Some abilit**ies show up in both the S**upport and Compensate sections of the same learning channel. For example, Rhythm Memory can be used to support other learning channels** by addin**g movement to the memory process. Rhythm Memory can also be found in the Compensate section because the need for physical movement can distract from focusing. Learning Strategies is concerned with making you aware of your learning channels and how to** cope with some of the **interferences with their function**, so the object is to b**e aware of the potential power of adding movement to memorization, and also to cop**e with the possible **distraction factor.**

**RANGES OF SCORES** VERBAL MEMORY, TONAL MEMORY, NUMBER MEMORY, DESIGN MEMORY, AND RHYTHM **MEMORY** *scales for all le****arning channels above:*** 1 - 35*%*

**limited** 36 - 64%

**medium** 65 -99%

**strong** NON-SPECIALIZED VOCABULARY

1 - 25%

**limited** 26 - 64*%*

**medium** 65 -99*%*

**strong INTROVERT/EXTROVERT** 1 - 35%

**Introvert** 35 - 64%

**medium Introvert/Extrovert** 65 - 99%

**Extrovert** CLASSIFICATION AND IDEA PRODUCTIVITY 1 - 35%

**limited** 36 - 99%

**strong CONCEPT ORGANIZATION** 1 - 49%

**limited** 50 - 99%

**strong SPATIAL RELATIONS*/*THEORY** 1 - 35%

**limited** 36 - *64%*

**medium** 65 - 99%

**strong** SPATIAL RELATIONS/VISUALIZATION

1 - 35%

**limited Structural Orientation (reinforce abstract orientation)** 36 - 64%

**medium Abstract*/*Structural Orientation -not clear** 65 - 99%

**strong Structural Orientation** OBSERVATION, VISUAL SPEED & ACCURACY. *scakes for all ab****ove:*** 1 - 25%

**limited** 26 - 64%

**medium** 65 -99%

**strong** PITCH DISCRIMINATION AND TYPING SPEED 1-35%

**limited** 36 - 64%

**medium** 65 - 99%

**strong**

**VERBAL MEMORY**

**VERBAL MEMORY**

**DEFINITION**

**Verbal Memory is the ability to learn new words quickly and easily. It relates to visual leaming, the ability to recall what one has read efficiently. It aids with ease of mastering vocabulary, foreign languages (the reading and writing of that foreign language) and specialized vocabulary.** It is highly rel**ated to the case with which you gather information from the written word.**

**If this is your primary learning channel (your strongest), and it is in the mid- to strong-range, reading new material is perhaps the most efficient way to take in new information. If your verbal memory is strong you may even find that reading the material through once is enough to commit the main ideas to memory. If it is in the mid-range, you may find it helpful to re-read the mater**ial. If it is in the low-range, time will be **the main issue. Give yourself time to read and reread the material.**

**If you have strong Verbal Memory, success in school may come easily for you. However, as the demands of school become more difficult, you will want to involve other learning channels. The more learning channels you use the easier you can learn. This applies no matter what your primary learning channel is. It is even more important when your scores are limit**ed on the **learning abilities.**

VERBAL MEMORY..

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**VERBAL MEMORY**

**SUGGESTIONS FOR MAXIMIZING**

*(Whatever your score on Verbal Memory, use the suggestions that fit for you and macimize this ability! Check the suggestions you want to use.) :*

Theoretically, if Verbal Memory is your primary learning channel, this **means that** given a choice, you should find resources to read about what you are trying to learn. **Source**s include but are not limited to:

**Text books**

**Supplemental readin**gs (journal articles, **magazines) found on your own, through the library or from a teacher**. . .

**Reading material found on the Internet or other computerized sources offered thro**ugh the school or public l**ibrary**

**Browsing materials at the bookstores Make a conscious effort to get as m**uch information as possible into written form. Learn the art of note taking so you will have the lectures in a w**ritten format. Some examples are:**

**Write on** one side of the paper, as it will be e**asier for you to read later.**

**Use ruled paper.** Use a ring binder to be able to add additiona**l material later.**

Make sure the ring binder has pock**ets for collecting and saving handouts.**

**Leave large blank spaces between topics being discussed in class**. You will have **room to add additional information and fill in your notes. You can also use this space to clarify and summarize the information.**

**Develop your own set of abbreviations so note takin**g will be **more concise such as:** &(and), w*/*(with), wli (within), w*/*o (without), sh (should), wd (would), T (test), M ***(*memori**ze), bc (because), < (less than), > **(greater t**han), # *(*number), e.g. (for example), i.e. (that is), c. (around, about)..

**VERBAL MEMORY**

**SUGGESTIONS FOR *M*AXIMIZING *(*CONTINUED)**

**O**

**Read and re-read any notes you take from the readings or class lectures.**

PS

O

**Prior to class, re-read previous day's notes in order to refresh your memory.**

O

**When studying with a partner (or group) make sure to get the major points discussed**

**· into written form**. You could do this by **taking notes, writing** on a blackboard or by **underlining relevant points in a book.**

O

**Since there is a significant drop in memory after 24 hours and then again after two weeks, re-read your notes the day after th**e class lecture. This **will reinforce your notes in your memory. Review them again within the two week period.**

O

**Preview all new chapters. Read introduction**s; look over bold-f**ace terms and read the chapter summary. Have some idea of what the professor is going to be lecturing on prior to class.**

O

**Realize that reading a textbook is a slower process than reading for pleasure. Be sure to factor in the extra time for reading a textbook.**

**VERBAL MEMORY**

**VERBAL MEMORY**

**WORKING WITH SUPPORTING ABILITIES**

*(There are no right or wrong ways to use your abilities to support each other. See what works best for you and use it to your advantage. Check the suggestions that apply to you. Use your bar chart as a reference.)* . **Do you have a moderate to clear preference for Introversion?**

**A clear preference for Introversion helps you to sustain your energy level as you spend time alone reading written information. There is little press for interacting with others, thus spending time alone is not necessar**ily displeasing. You m**ay prefer**

**studying alone vs. studying in groups. Do you have moderate to strong preference for Classification?**

You are quickly able **to understand the significance of a passage, summarizing and getting the gist of the facts, without necessarily seeing ev*e*ry word of the text. It is a process of reasoning in which the conclusion is reached directly from seeing relationships in information and then quickly coming to a conclusion about that information. Learn to pay attention to these conclusions. They can often help you summarize important points.**

**Because this process may ha**ppen so quickly, almost as if you had no control of it, be **aware that there are times when your conclusions will not be correct.**

**you also have strong Visual Speed and Accuracy, use it to enhance speed reading. You can use this combination for heavy reading loads.**

**Classification coupled with moderate to strong Idea Productivity and moderate to strong Rhythm Memory, can help you leam as you type and read what you type on a computer. In addition you can print out the information and read and re-read your typed notes. Taking hand written notes works the same way. The movement of your han**ds helps yo**u to stay focused thus taking in more information.**

**Do you have limited Classification?**

Limited Classification helps yo**u become proficient in acquiring knowledge and experience. This means you** will not **feel a press or a desire to move fast and go beyond the facts to hypothetical situations or to leap to** quick conclusions. Use this **time to go deeper and stay with the process of acquiring knowledge.**

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**VERBAL MEMORY**

**WORKING WITH SUPPORTING ABILITIES (CONTINUED)**

**Do you have moderate to strong Concept Organization?**

**Create order out of confusion. Concept Organization can aid you with organizing written information and*/*or oral informatio**n. Use this ability in **taking notes in class for the purpose of getting the lecture into your best format for studying. It can also**

**help with writing papers, class discussions, prioritizing tasks, et**c. . **Do you have limited Idea Productivity?**

**You can use your limit**ed Idea Productivity to hel**p you focus and concentrate on studies instead of flying off in too many directions and generating too many**

**distracting ideas. *A*re you limited in Spatial Relations Visualization?**

**Enter the world of ideas, words and abstract concepts in reading assignments. The abstract student may be satisfied with reading about flying a kite rather than having to fly a kite. You may want to concentrate on fields that relate to the world of ideas** such as English **literature, ps**ychology, jou**rnalism, history, business administration vs. more structural fields like engineering, architecture, medicine, and the sciences.**

**Do you have moderate to strong Non-Specialized Vocabulary?**

Strong Non-Specialized Vocabulary, which is **learned and** not an ability, is one of the **most important factors associated with the potential for academic success. It is an indicator of the number and precision of categories one has for taking in information. The greater the number of categories for taking in information, the greater the possibility for understanding the information being read. (See section**

**entitl**ed "Non-Specialized Vocabulary" for further discussion.) . ***A*re you moderate to strong in Design Memory?**

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**for the purp**ose of recalling the

**Take notes in picture, diagram**, and/or ou**tline form**

**written information quicker. *A*re you limited in Observation?**

**Limited Observation aids you in concentrati**on and focus. You are less susceptible to **external visual activit**y, stimuli, or distrac**tions. You can use limited Observation when working in an environment with a great deal of extraneous activity like a lab class or even studying outdoors.**

***11***

**VERBAL MEMORY**

**WORKING WITH SUPPORTING ABILITIES *(*CONTINUED) Are you strong in Observation, Pitch Discrimination, and*/*or Design Memory?**

**Take notes using different colored inks for headings, definitions, dates, etc. This can help with your being able to recall the design and colors of the information thus expediting your visualizing the written page along with the information on the page.**

**Are you moderate to strong in Tonal Memory?**

**You can combine Strong Verbal Memory and Tonal Memory to help you learn a foreign language or any specialized vocabulary.**

**With Verbal Memory and Tonal Memory you may want to get involved in discussion or group problem-solving formats.**

**to**

Use the 3R's: Read, Recite, Review. Read out loud to yourself. Believe it or not **using two of your learning channels at the same time speeds the process of internalizing information.**

**Do you have limited Rhythm Memory?**

**Limited Rhythm Memory indicates the lack of a general need for physical movement. You can take advantage of the this ability when you need to stay seated for longer periods of time when studyin**g or in classes. This **enables you to better concentrate and focus.**

**Are you moderate to strong in Visual Speed and Visual Accuracy?**

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**You can move your eyes across a written page quickly and accurately. This ability facilitates taking in new written information as it relates to speed of reading and accuracy of reading. This ability can make it easy for you to handle paperwork that is associated with many classes, and t**o help i**n reading music, doing accounting books, or scanning mathematical formulas.**

VERBAL MEMORY

**VERBAL MEMORY**

**SUGGESTIONS FOR COMPENSATING**

*(Check the abilities that apply to you. Use* ***your bar chart as a reference.)* Do you have a moderate to clear preference for Extroversion?**

**A clear preference for Extroversion can distract from your spending a large chunk of time studying. Spending time alone drains you of much needed energy to persist studying.**

**Suggestions:**

**Find your own "reading tolerance" time. Then take a 10 to 20 minute maximum "visit break". For example: 50 minutes reading, 10 minute visit break; 50 minutes reading, 10 minute visit break, et**c..

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**A student with a clear preference for Extroversion has a press to process. information being learned out loud. Studying with a group or a study partner** could help as y**ou can maintain your energy level for studying.**

**Do you have moderate to strong Classification?**

**Because a person with moderate to stron**g Classification likes to quickly **make connections and jump to conclusions, strong Classification can ma**ke it difficult for you **to focus on what you are reading long enough to learn it th**oroughly. **A person with moderate to strong Classificat**ion also likes learning something **new rather than going over the same material to get proficiency. Thus, you can get impatient with the process of taking in informat**ion throug**h reading and may want to move on to another task rather than sticking with the one at hand. Generally speakin**g you don't like to be **bothered with learning the details of an assignment and feel you can generally gather** enough info**rmation to wing it. Just because you learn something quickly doesn't mean you've learned it well.**

**Suggestion:**

**You must know this about yourself and come against the urge to think** you have gotten all that there is to know about a p**articular assignment Fight the urge to move on and use that time to internalize the new information you are reading.**

13

VERBAL MEMORY

**SUGGESTIONS FOR COMPENSATING *(*CONTINUED)**

**Do you have limited Concept Organization?**

**Limited Concept Organization can hinder you in the internal organization of information being read or the internal organization of your life.**

**Suggestion:**

**Learn as many extemal organizational skills as possible. Leamin organize information externally in a written format will be a great asset to you in academic settings. Post-its with messages written to yourself to** help prompt yo**ur memory, daily planners, calendars, prioritized daily lists, etc. can help you be more organized. Seeing and reading your messages to yourself will help you stay on track.**

**Do you have strong Idea Productivity?**

**Strong Idea Productivity means you may have a lot of competing thoughts and ideas that can distract you from focusing on your studies. Once you internalize the material you are learning, Idea Productivity can help you come up with a lot of ideas abo**ut it. This could **work well for you in a class discussion..**

**Suggestions:**

**Working to edit your ideas will be your task. Place a legal pad next to you** while you study. When a thought or id**ea comes to you, leam to filter out and let pass those ideas of little importance. Write down only those ideas you want to act on, implement or remember after you have completed your studies. These ideas can interrupt your train of thought while studying. Writing down *y*our ideas will allow you to know the ideas will be there when you complete your study time.**

A radio playing in the background softly **may aid the need for mental stimulation. Preferably music without words. See if it works for y**ou. If **not, turn off that radio!**

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14

**VERBAL MEMORY**

**VT**

**SUGGESTIONS FOR COMPENSATING *(*CONTINUED) Are you strong in Spatial Relations Visualization?**

**Strong Spatial Relations Visualization may press you to desire hands-on participation in a project and reading about it may be boring. You more likely would choose to fly a kite rather than reading about how to fly a kite!**

**Suggestion:**

**When possible, concentrate your course work on subjects which deal with or produce tangible, concrete results; take hands-on lab courses** when possible; dev**ise hands-on experiences to accompany more abstract** subjects (i.e. lo**ok for related work, internships, and teaching assistantships that can make these subjects more real to you); make tangible representations, or models, of information from clay, wood, Legos, Tinkertoys, found materials, etc.; take field trips to museums, trade shows, factories, retail outlets, parks, construction sites, etc. and get guided tours when possible. Making any kind of concrete association with the abstract information you are readi**ng will help you r**emember it. When you can't get immediate hands-on experience with information, give yourself time to imagine three-dimensional models, or representations of what you are reading.**

Do you hav**e a limited Non-Specialized Vocabulary?**

**Limited Non-Specialized Vocabulary can hinder comprehension (understanding) which, of course, is critical for studying. You may have difficulty putting what you read into context. Anything you can do to raise your vocabulary will greatly enhance your academic and career success. (See section entitled Non-Specialized Vocabulary for further discussion and suggestions.)**

**Are you moderate to strong in Observation?**

**Strong Observation can be distracting especially if you are studying in a visually stimulating environmen**t, like a lib**rary table in the center of the library on the first floor or a park where** a lot of people walk by.

**Suggestion:**

**The more sterile the environment the better.** You can couple this with

**being away from the activity of others. Studying in a library carrel can** :: **give you an advantag**e and help keep you focused what you **are reading.**

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**VERBAL MEMORY**

**SUGGESTIONS FOR COMPENSATING (CONTINUED) Are you limited in Tonal Memory*?***

**Transposing information from the spoken word into written form may be more difficult for you.**

**Suggestions:**

You will need to **be careful and conscientious in getting information into written form. You must make it an in**violable habit **to write anything down that you want to remember. This is particularly important (and ofte**n difficult) when someone tells you something **that you will need to remember.**

**Tape lectures. Later transcribe the lecture into written format. Put the tape away and read and reread your notes.**

**Do you have moderate to strong Rhythm Memory?**

**Strong Rhythm Memory can press you to move aro**und. Sitting sti**ll to read may be difficult.**

**Suggestions:**

**Determine your "sitting tolerance " time. How long can you concentrate without having to get up and move around? Clock the time. Then take an "exercise break". Whatever works for you. Power walk around the** block. Do sit ups. **Practice the latest dance steps. But don't let this break** go longer than 10 to 20 **minutes. Then back to work until your sitting tolerance time i**s up. Now **another exercise brcak, etc.**

**You can even move about while reading by pacing, rocking, or walking on a tread mi**ll.

**Chew gum while you read.**

**Take written notes while you read. Or, word process notes on your computer. J**ust the movement of your hands helps **satisfy your need for movement.**

If you don't get motion **sickness and are traveling by car or b**us, the **movement of the car**. can help satisfy you**r need to move and possibly help you to focus.**

**VERBAL MEMORY**

**SUGGESTIONS FOR COMPENSATING *(*CONTINUED) Do you have limited Visual Speed and Accuracy?**

Limited Visual Speed and Accuracy may hinder you from doing p**aperwork quickly and accurately.**

**Suggestions:**

**Organizational skills will be important so you can keep up with your syllabus, paper work, handouts, etc. Buy notebooks or spiral binders with pockets in them. Have a specific place in your room for all important school materials. Have a large study space to spread out your work.**

Double chec**k for visual mistakes or get someone to edit your work prior to turning it in.**

When taking a multiple **choice test that utilizes computer generated answer sheets, use a ruler or another pencil as a ruler to make sure you do not get off the correct corresponding number while marking your answers.**

:. 17

TONAL MEMORY

**TONAL MEMORY**

**DEFINITION**

Tonal Memory is the abi**lity to remember what** you hear. This abi**lity relates to being able to leam vocabulary words and to reproduce the accents of languages and dialects. It is actually the ability to remember, and reproduce, sequences of sounds, such as words, sentences, musical tunes, and any other mechanical or natural sound.**

Tonal M**emory is referred to as true musical ability and people who have medium to strong scores can easily reproduce musical tunes, as well as other sound sequences, from memory. As a purely musical ability, it has ap**plication in playi**ng musical instruments and singing by ear.**

**If this is your primary leaming channel (your strongest), and it is in the mid- to-strong-range, listening is perhaps the most efficient way to take in new information. If your tonal memory is strong you may even find that hearing the material through once is enough to commit the main ideas to memory. If it is in the mid-range, you may find** it helpful to li**sten to the material more than once.**

**If you have strong Tonal Memory, success in school may come easily for you. However, as the**

**t to involve other learning channels. The more leaming channels you use the easier you can learn. This applies no matter what your primary learning channel is. It is even more important when your scores are limited on the learning abilities.**

18

TONAL MEMORY

**TONAL MEMORY**

**SUGGESTIONS FOR MAXIMIZING**

***(Whatever your score on Tonal Memory, us****e the suggestions that fit for* ***you and maximize thi****s ability! Check the suggestions you want to use.)*

Keep in mind that if Tonal Memory is your primary learning channel, you need to find and use **resources t**o let you hear whatever you are trying to learn.

Don't miss class lectures (especially if **Verbal Memory is lim**ited)! Being in class **and hearing the information can save you time later.**

**Take courses in the "hearing" formats when possible, i.e. lectures, seminars, and** discussions.

**Tape lectures and use a Walkman to listen to the tapes to review as you do other things. To prevent the significant loss in memory that occurs in the first twenty four hours after hearing information, and again within the two-week period following, listen to your tape soon after the class and again during the next two weeks. The early and frequent revie**w will help you **retain the material**

**Get books-on-tape when available.**

**Learn to ask instructors (or anyone) to repeat information for you until you have understood it.**

**Pay attention to any relationship between the sound of a word and its meaning for example,** "puff”, “swish”, “rush”, or “boom”.

Prior to clas**s prepare to "hear” by familiarizing yourself with the material being taught. For example, read over introductions, look over bold-faced terms and read summaries. Make time to listen often and repeatedly to material you are in the process of learning**

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TONAL M**EMORY**

**SUGGESTIONS FOR MAXIMIZING *(*CONTINUED)**

**Make use of** your own voice to get information into hearing form.

**Hear yourself say anything you want to memorize (i.e., talk to yours**elf). **Repeating the information in your own word**s helps with long-te**rm memory.**

**Read your class notes, textbooks, and other written information out loud to yourself or onto a tape to listen to later. Try reading textbooks onto tape so that you can use your Tonal Memory for later reviewing.**

**Tape summaries and major points of information f**or quick review.

**Study with a partner (or a group) who will repeat information out** loud to you. **Be sure to discuss the major points and even record the discussion if possible.**

Add "music" to anythin**g you are learning.**

**Put any information into tune, rhythm, or rhyming form, i.e. songs, raps, chants, or rhymes. This may be especially helpful when you are learning totally unfamiliar lists of terms or facts.**

**Associate tunes or tone sequences with anything you are memorizi**ng. Just as a... **sight-impaired person might learn telephone numbers by memorizing the touch tone sequence of sounds, you can associate tonal sequences to other information you want to remember.)**

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20

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**TONAL MEMORY**

**TONAL MEMORY**

**WORKING WITH SUPPORTING ABILITIES**

*(There are no right or wrong ways to use your abilities to support each other. See what works best for you and use it to your advantage. Check the suggestions that apply to you. Use your bar chart as a reference.)*

Do you ha**ve a moderate to clear preference for Introversion?**

**A clear preference for Introversion helps you to maintain your energy when you spend time alone. Spend extended periods of time in quiet alone, listening to information vs. studying in groups. Having information on tape or discussing information with another person, or small group, can help you combine Tonal**

**Memory with a preference for Introversion. Do you ha*v*e a moderate to clear preference for Extroversion?**

**You can be around people talking about what you are learning for extended periods of time and maintain your energy level Use your Tonal Memory in various group situations to take in the information you need. -**

**Do you have moderate to strong Classification?**

**Be aware that t**his ability **enables you to quickly understand the significance of what you are hearing, rapidly grasp the facts, summarize the information, and come to conclusions without having to hear every word being said, or take the time to** logically think things through. **Learn to pay attention to these conclusions. They**

**can oft**en help yo**u summarize important points and understand the overall picture. Are you moderate to strong in Concept Organization?**

**U Mentally organize and order what you are hearing into outline or other-easy-to**

**remember forms.** Do you have **limited Idea Productivity?**

Not being distracted by many competing ideas supports your use of Tonal M**emory to remember information you are hearing. De**velop this ability to focus **and to concentrate.**

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TONAL MEMORY

**WORKING WITH SUPPORTING ABILITIES *(*CONTINUED)**

**Do you have strong Idea Productivity?**

**You can support your Tonal Memory with your Idea Productivity by quickly coming up with many possibilities and creative associations to help you remember what you are hearing, Leam to channel this flow of ideas into rapidly producing real and imaginary examples to illustrate what you are learning. The more unique or outrageous the example, the easier to rec**all!)

**Do you have moderate to strong Non-Specialized Vocabulary?**

Non-Sp**ecialized vocabulary, which is learned and not a true ability, measures your breadth of general knowledge, and helps you to understand the information you are hearing. The broader and more precise your vocabulary is, the more quickly and clearly you can grasp what you are hearing. Non-Specialized Vocabulary is strongly related to academic success and any effort you put into increasing it can enhance your ability to understand and remember what you hear.**

**(See section** entitled Non-Specialized Vocabu**lary for further discussion and suggestions.)**

**Are you limited in Observation?**

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**Limited Observation, which means you are relatively unlikely to be visually distracted by what is going on around you, can enhanc**e Tonal Memory by helping **you focus on what you are hearing. Listen to your audio tapes for learning information in a variety of environments (outside jogging, riding in your car, e**tc.).

**Are you moderate to strong in Verbal Memory?**

**Learn lists of vocabulary words** (1.e. o**f a foreign language or a profession like accounting, engineering**, or psychology) in group **learning formats, such as discussion** Of Study groups.

**Read along with what is being said when you have the opportunity. You can also read class notes or any materia**l out loud **to yourself to help you combine the strength of these two abilities.**

TONAL MEMORY

**WORKING WITH SUPPORTING ABILITIES *(*CONTINUED)**

**Do you have moderate to strong Rhythm Memory?**

Although Rhyth**m Memory can cause you to be physically restless, and distracted when you are trying to focus on hearing information, you can also make it work for you. You can use small movements (which do not disturb others): swinging your feet, quietly tapping fingers or feet, and rocking. When you are listening to taped information, walking, rocking, dancing, or any movement can enhance the power of your T**onal Memo**ry to retain what you're hearing. You can a**lso use Rhythm **Memory to enhance what you hear by translating information into rhythmic devices**

**like poems, rap**s, songs, etc.

**Do you have limited Rhythm Memor*y*?**

**Limited Rhythm Memory indicates the lack of a general need for physical movement. You can take advanta*g*e of the this ability range when you need to stay**

ted or still for long periods of time, listening to and tr**ying to remember information. This lack of need for movement enables you to better concentration and focus on what you are learning.**

**Are you strong in Pitch Discrimination?**

**Be aware that you notice fine differences in sound pitches. Bring this ability into play when learning the accents of any language or dialect, an**d especially in learning **Oriental languages where words that are spelled the same depend upon pronunciation for their meaning,**

TONAL MEMORY

**TONAL MEMORY**

**SUGGESTIONS FOR COMPENSATING**

*(Check the suggestions that apply to you. Use your bar chart for reference.)*

**Do you have a moderate to clear preference for Introversion?**

**While Introversion helps you keep your energy up when studying alone and listening to information, it can make it difficult to take in information in large groups, especially if the groups are unstructured.**

**Suggestion:**

When possibl**e take small, structured classes and seminars or tutorials; create your own small study groups where there is some organization (f.e. everyon**e doesn't talk at once, there is a specific agenda, etc.)**; practice** "going inside” or mentally detachin**g in large groups so that you can integrate information inwardly; schedule alone time between large classes for processing information and energy renewal.**

**Do you have a moderate to clear preference for Extroversion?**

**Extroversion can make listening** quietly for long periods **difficult because talking and interaction are your best methods for processing information and staying energi*z*ed. Extroversion can also make it difficult to spend the long periods of alone time which are sometimes necessary to take in certain kinds of material.**

**Suggestion:**

**Practice "balancing” talking and listening, equal time to each; sit near the front of class and not near anyone you know, have scheduled socializing times, especially after lengthy structured lectures or seminars; schedule short periods for listening quietly alone, and reward yourself afterwards with group activities; arrange for study groups (or partners) where you** can process out loud **what you are learning.**

24

**TONAL MEMORY**

**SUGGESTIONS FOR COMPENSATING (CONTINUED)**

**Do you have moderate to strong Classification?**

**Because a person with moderate to stron**g Classification likes to quickly make **connections and jump to conclusions, you may find it difficult to slow down and listen thoroughly to what you are hearing. Classification ability can also cause you to become impatient with repetition or process of any kind and can make it difficult to focus conti**nually on the subject **matter you are hearing. And since a person with moderate to strong Classification would much rather leam something new than review information, it can be a struggle to discipline yourself to gain proficiency in a subject.**

**Suggestions:**

**Be aware that your quick conclusions about what you hear are not necessarily right. Experience and education determine t**he quality o**f your conclusions. Strong Classification needs thorough training and educating** in a specific discipline to be **diagnostically correct.**

Develop patience and discipline to help you **listen carefully and repeatedly to difficult material. When listening to lectures resist the temptation to interrupt or leap ahead and ask questions before the speaker has finis**hed his or her thought. Try jot**ting down your questions and asking those that remain unanswered when the speaker is finished.**

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Tape lec**tures and schedule time to review what you have heard.**

**Do you have strong Idea Productivity?**

Strong Idea Productivity can produce co**mpeting ideas that m**ake it difficult to listen to **and focus on what you are hearing.**

**Suggestion:**

**Edit your ideas, discarding those not related t**o the subject, jot **down ideas that seem important and be sure to go back over thern at a later time; leam to calmly bring your mind back to the subject being spoken about; use focusing and breathing techniques that can help you relax your mind; take notes or jot down key words and use them to refocus when you get distracted.**

25

TONAL MEMORY

**SUGGESTIONS FOR COMPENSATING *(*CONTINUED) *A*re you strong in Spatial Relations Visualization?**

Strong Spatial Relations Visual**ization can often cause abstract kinds of informat**ion (like **ideas, principles, concepts, values, etc.) to seem irrelevant, "unreal," or useless, unless you can have a hands-on experience of it, and*/*or see a tangible, concrete product.**

**Suggestion:**

**When possible, concentrate your course work on s**ubjects which deal **with or produce tangible, concrete results; take hands-on lab courses whe**n possible; devi**se hands-on experiences to accompany more abstract subjec**ts (i.e. loo**k for related work, internships, and teaching assistantships that can make these subjects more real to you); make tangible representations, or models, of information from clay, wood, Legos, Tinkertoys, found materials, etc.; take field trips to museums, trade shows, factories, retail outlets, parks, construction sites, etc. and get guided tours wh**en possible. Making any kind o**f concrete association with the abstract information you are hearin**g will hel**p you remember it. When you can't get immediate hands-on experience with information,**

**give yourself time to imagine three-dimensional models, or** :: **representations of what you are hearing.**

**Are you moderate to strong in Observation?**

**Strong Observation can cause you to be easily distracted visually by anything you can see around you and cause you to miss what is being said.**

**Suggestions:**

**Sit near the front of the class and/or face the least possible amount of visual distraction (windows, displays, open doors, etc.); keep desk or work space clear and** books closed (if not in use); when **listening to taped material, sit at a carrel or face blank walls, the more undecorated, the better.**

26

TONAL MEMORY

**SUGGESTIONS FOR COMPENSATING *(*CONTINUED)**

**Do you have moderate to strong Rhythm Memory?**

Strong Rhythm M**emory can cause a physical restlessness that can distract you from concentrating on what you are hearing.**

**Suggestion:**

**Get regular exercise** daily and especially be**fore long classes or lectures; when possible, get up and move about, take breaks and associate movement with what you are hearing (small, quiet, rocking, tapping, or other movements can aid kinesthetic memory and not distract others); take taped material on trips where the motion of a car can enhance your learning**

27

**DESIGN MEMORY**

**DESIGN MEMORY**

**DEFINITION**

**Design Memory is the ability to remember information in two-dimensional graphic form such as diagrams, charts, maps, and pictures of any kind (paintings, sketches, cartoons, ph**otographs, doodles). It is the big pic**ture" rather than s**mall detail. Visu**al ability can be thought of as “menta**l photography". You use this **ability when you are recalling or working with any kind of two-dimensional patterns or designs (i.e. fabric designs, site plans, floor plans, mechanical schematics, architectural drawings, etc.). It is the ability to visually notice, remember, and work with how the elements of a design or pattern relate to each other.**

It is also a valuable school **learning channel of which many people are unaware. Design Memory can be used to take in academic information in any kind of pictorial form, and to translate information in other forms into graphic representations.**

**DESIGN MEMORY**

**DESIGN MEMORY**

**SUGGESTIONS FOR MAXIMIZING**

*(Whatever your score on Design Memory, use the suggestions that fit for you and maximize this ability! Check the suggestions you want to use.)*

Keep in mind that if Design Memory is your primary learning channel you will benefit by findin**g resources to let you see a** graphic or pictorial representation of anything you are learning. For you, a picture really can be worth a thousand words!

**Use pictures of your subject matter in any way you can. For example, get videos, photographs, brochures, magazines, computer graphics programs, information from the Internet, etc., or your own visual creations that relate to what you are learning.**

**If there are diagrams or charts of your subject matter, leam to use them first, beginning your s**tudy with them when possible, and **referring to them often. Make up your own diagrams when others are not available.**

29

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DESIGN MEMORY

**SUGGESTIONS FOR MAXIMIZING *(*CONTINUED)**

When information you are learning is not in graphic form, translate it into your own designs or pictures. Draw anything you wan**t to remember, using sketches, doodles, cartoons, diagrams**, computer graphics, or any kind of symbol or picture, no **matter** how silly or outrageous!

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Outline yo**ur notes, the outline itself creates a** visual design

O

“Design” you**r written notes** by using bolding, caps, **indentions, various fonts, boxing, colored inks and shading, or any visual pattern to place different types of information on the page.**

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**Learn to use strat**egies like the mind mapping or webbing methods described **in Mapping Inner Spa**ce by Nancy Marguiles, M.A., and in Use You**r Brain** and The Mind Map Book by T**ony Buzan.**

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For doodling or o**ther graphic note-taking, design your own diagrams or templates (for example, a flow chart) with blank spaces for information and make copies to take to class and fill in when taking notes.**

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**Associate bright colors with your material, i.e. use different bright colors of ink for note tak**ing, highlighting, u**nderlining, and making borders, and use bright colors for note cards, flash cards, and different-subject notebooks:**

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When you can't d**raw it, imagine it! Take the time to picture in your mind what you are learning (focused daydream**ing!).

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When studying from multiple sou**rces, arrange the information on your desk** (floo**r, bed, or wherever) so you can visualize the information later.**

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Use the method of loci to le**arn and recall information (associate the information with a visual, i.e. certain places around the classroom).**

**DESIGN MEMORY**

**DESIGN MEMORY**

**WORKING WITH SUPPORTING ABILITIES**

*(There are no right or wrong ways to use your abilities to support each other. See what works best for you and use it to your advantage. Check the suggestions that apply to you. Use your bar chart as a ref****erence.)***

**Do you have a moderate to clear preference for Introversion?**

**A clear preference for Introversion helps you to maintain your energy when you spend time alone. Use Design Memory to spend extended periods of time in quiet, alone, looking at pictures, videos, maps, computer graphics, etc. without losing energy**

**Do *y*ou have a moderate to clear preference for Extroversion?**

**You can be around gr**oups of people **for extended periods of time, while maintaining your energy level. You may enjoy attending visual events (plays, movies, television programs, product demonstrations, etc.) where you can see information related to what you are leaming.**

**Do you have moderate to strong Classification?**

**You can often** quickly und**erstand the significance of what you are seeing or picturing and grasp rapidly the facts represented, and summarize the information, and come to conclusions without having to see every detail of what you are learning. Learn to pay attention to these conclusions. They can often help you summarize important points.**

Do you have limited **Classification?**

**Limited Classificati**on helps you b**ecome proficient in acquiring knowledge and experience, to learn information in depth. This means you will not feel a press or a desire to move fast and go beyond the facts to hypothetical situations or to leap to quick conclusions. Use this time to go deeper and stay with the process of acquiring knowledge with D**esign Memory, as well as other channels.

31

DESIGN MEMORY

**WORKING WITH SUPPORTING ABILITIES *(*CONTINUED)**

**Are you moderate to strong in Concept Organization?**

**Visually organize and order what you are learning into outlines or other eas**y-to **remember patterns.**

**Do you have limited Idea Productivity?**

**Limited Idea Productivity indicates that you are not being greatly distracted** by : **competing ideas and images. This ability range can make it easier for you to concentrate on graphics and other visuals from which you are getting information.**

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**Do you have moderate to strong Idea Productivity?**

Think up possibil**ities and creative ideas to visually represent what you are learning. (The more unique or outrageous the picture, the easier to r**ecall!)

**Do you have moderate to strong Non-Specialized Vocabulary?**

Non-Spec**ialized Vocabulary, which is learned and not a true ability, measures your** breadth of general knowledge, and helps yo**u to understand the information you are** seeing or picturing. The broade**r and more precise your vocabulary is, the more** quickly and cle**arly you can grasp visual informatio**n. Non-Specia**lized Vocabulary is strongly related to academic success and any effort you put into increasing it can enhance your ability to understand and remember what you hear.**

**Take notes by designing or webbing. A large vocabulary helps you be quick and accurate in choosing precise words to represent what you are recording. (See section** entitled Non-Specia**lized Vocabulary for further discussion and suggestions.)**

**Are you moderate to strong in Observation?**

You easily not**ice and remember the details, as well as the overall design, of what you see. Access your Observation to develop comprehensive visual pictures.**

Do you h**ave moderate to strong Tonal Memory?**

Support your Design M**emory by remembering information you hear and want to later put into graphic form,**

32

**DESIGN MEMORY**

**WORKING WITH SUPPORTING ABILITIES *(*CONTINUED)**

**Do you have moderate to strong Rhythm Memory?**

**Combine movement with your ability to picture a design in your mind. For example, you can trace a word or symbol with your finger (or foot) on a wall or floor or some surface, and then later look at that surface and picture in your mind what you** "wrote".

**Do you have strong Pitch Discrimination?**

Develop your ability **to notice and remember fine nuances of line, color, shape, and texture in an overall design. This ability can enrich the quality and of any design and make it more memorable.**

Do you h**ave moderate to strong Number Memory?**

**Attach numerical information to graphs, diagrams, spreadsheets, etc. Since Number Memory is also the ability to remember unrelated facts (non-associative memory), making a diagram or other design and filling it in with any list of terms you need to memorize could be a good strategy for you.**

***A*re you strong in Visual Speed and Accuracy?**

**Be aware of your ability to quickly and accurately interpret whatever visual symbols you are using to represent new information. Add these symbols (aumbers, music notes, abbreviations, etc.) to a visual pattern for better recall.**

**Are you strong in Typing Speed?**

**You can use t**his ability to quickly and easily inpu**t whatever symbols you are using to type notes on information you are learning.**

**DESIGN MEMORY**

**DESIGN MEMORY**

**SUGGESTIONS FOR COMPENSATING** *(Check the suggestions that apply to you. Us*e *your bar chart as a* ***reference.)* Do you have a moderate to clear preference for Introversion?**

**While Introversion helps you keep your energy up when studying alone and visually focusing on information, it can make it difficult to take in information in large groups,** especially if the g**roups are unstructured.**

**Suggestion:**

When possible, **take small, structured classes and seminars or tutorials; create your own small study groups where there is some organization** (i.e. **everyone doesn't talk at once, there is a specific agenda, etc.); practice** "going inside" or mentally detaching in l**arge groups so that you can integrate information inward**ly, schedule alon**e time between large classes**

**for processing information and energy renewal. Do you have a moderate to clear preference for Extroversion?**

**Extroversion can make visually focusing on information for long, quiet, periods difficult because talking and interaction are your best methods for processing information and staying energized. Extroversion can also make it difficult to spend the long periods of alone time which are sometimes necessary to take in certain kinds of material.**

**Suggestion:**

**Practice "balancing" talking and listening, equal time to each; sit near the front of class and not near anyone you know, have scheduled socializing times, especially after lengthy structured lectures or seminars; schedule short periods of quiet visual focusing on information you are learning, and reward yourself afterwards with group activities; arrange for study groups (or partners) where you can process out loud what you are**

**learning Do you have moderate to strong Classification?**

**Because a person with moderate to strong Classifica**tions likes to move quickly **and can become impatient with repetition or process** of any kind, you may find it difficult to slow **down and put information into graphic form for later review. And since a person with moderate to strong Classification would much rather learn somet**hing new, you probably **will not want to go over it anyway! This is where discipline comes in.**

**Suggestion:**

**You can use your attraction to pictures and visual pattems to use graphics in getting proficient in your subject matter.**

34

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DESIGN MEMORY

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**SUGGESTIONS FOR COMPENSATING *(*CONTINUED) Do you have moderate to strong Idea Productivity?**

**Moderate to strong Idea Productivity means that you have many competin**g ideas which **can make it difficult to focus on what you are trying to leam.**

**Suggestion:**

**Edit your ideas, letting those not related to the subject pass; practice bringing your mind back to the subject you're studying, use focusing and breathing techniques that help calm the mind; trace over the picture,** graph or other design you are learning, with yo**ur fingers or pencil to help** you keep focused. Strong Idea Produ**ctivity may drive you to continually produce a new version of the information you are learning. Jot down the new ideas, but concentrate your time on leaming the material, not**

**creating new editions! A*r*e you moderate to strong in Observation?**

**Strong Observation means that you can be easily distracted visually by anything you see going on around you.**

**Suggestion:**

**Sit near the front of the class or facing the least possible amount of visual distraction (1.e., wind**ows, displays, open doors, etc.); keep your desk and **work space clea**r, and books closed if not in use. **Trace diagrams etc. you are learning with your finger or pen**cil to help keep yo**ur eyes focused on**

the subjec**t matter. Do you have moderate to strong Rhythm Memory?**

**Moderate to strong Rhythm Memory indicates a physical restlessness which can distract you from concentrating on what is being learned.**

**Suggestion:**

**Get exercise daily; when you are studying, get up and move about, and take breaks when possible; even when you are sitting, sma**ll, quiet **rocking, tapping or other movements can aid kinesthetic memory and not distract others. Have fun with your Rhythm Memory! Draw or**

dood**le or diagram wi**th a beat! **Are you limited in Visual Speed and Accuracy?**

Limited Visual Spee**d and Accuracy makes it di**fficult to quickl**y scan pages and accurately interpret the symbols you are using.**

**Suggestion:**

**Be sure to set aside enough time to organize your papers and look over your material.**

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**RHY**THM MEMORY

**RHYTHM MEMORY**

**DEFINITION**

**Rhythm Memory is a kinesthetic memory chan**nel. It is the abi**lity to remember and reproduce rhythm patterns and physical movements. It involves, large muscle memory and is related to body coordination and motor activities. We use it when we are learning such things as new dance steps; tenni**s, golf, and baseball swings; football tacklin**g maneuvers, martial arts movements; swimming strokes; and the blocking involved in stage productions. Rhythm Memory is also involved in the larger arm and body movements used in such actions as drawing, painting, and playing musical instruments.**

**It indicates a general need for and enjoyment of physical activity.**

36

**RHYTHM MEMORY**

**RHYTHM ME*MO*RY**

**SUGGESTIONS FOR MAXIMIZING**

*(Whatever your score on Rhythm Memory, use the suggestions that fit for you and maximize this ability! Checke the suggestions you want to use.)*

**Add movement to anything you are learning, i.e. walk, dance, use a treadmill or stair stepper while you are memorizing or reading.**

**Even in class, or in other groups where you are learning information, small, quiet rocking, tappin**g, foot jiggling, **or other unobtrusive movements can aid kinesthetic memory without distracting others.**

**The movement itself of writing not**es will help yo**u remember what you are writing.**

**If you are leaning any kind of complex sequences, act them out. If you act out the steps of the meiosis or mitosis (for instance) you won't forget them.**

37

**RHYTHM MEMORY**

**RHYTHM MEMORY**

**WORKING WITH SUPPORTING ABILITIES**

*(There are no right or wrong ways to use your abilities to support each other. See what works best for you and use it to your advantage. Check the suggestions that apply to you. Use your bar chart as a ref****erence.)*** Do you hav**e a moderate to clear preference for Introversion?**

A cle**ar preference for Introversion helps you to maintain your energy when you spend time alone. You can enjoy the extended periods of time alone, practicing athletic or artistic techniques, or acting out information you are leaming.**

**Do you have a moderate to clear preference for Extroversion?**

You can easily join in groups of people **learning information for extended periods and maintain your energy level. It is usually easier to find larger classes and groups to learn and practice athletic, artistic and other physical movement activities. Take**

**advantage of this preference to help you learn in groups. Do you have moderate to strong Classification?**

**You can quickly understand the significance of the actions and movements you are**

**practi**cing. Use this ability **to summarize the main ideas and get the overall picture. Are you moderate to strong in Concept Organization?**

**Develop this ability to organize your thoughts to remember the correct sequence of movements, actions, and techniques you are learning.**

**Do you have limited Idea Productivity?**

You a**re not greatly distracted by competing ideas. This can enhance your Rhythm Memory by making it easier for *y*ou to concentrate on the physical movements you are learning.**

**You are able to concentrate and follow through on chosen ideas rather than being distract**ed by too many thoughts. Use this ability to suppo**rt your Rhythm Memory** by developing your talent to focus on, follow **through with, and complete the** activities you begin. (Strong scores in both Idea Productivity and Rhyth**m Memory mean you are mentally and physically very active and concentration may be difficult.)**

38

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**RHYTHM MEMORY**

**WORKING WITH SUPPORTING ABILITIES (CONTINUED)**

**Are you moderate to strong in Observation?**

You visuall**y notice and remember the details, changes, and differences** of physical **movements yo**u see, helping **you to reproduce them accurately. Make a point to observe someone else performi**ng athletic plays, **stage movements, and product demonstrations to make leaming them easier for you.**

Do you hav**e moderate to strong Tonal Memory?**

**You can use Tonal Memory to enhance Rhythm Memory by adding songs, raps, tunes of any kind, to physical movements you are trying to remember.**

39

**RHYTHM MEMORY**

**RHYTHM MEMORY**

**SUGGESTIONS FOR COMPENSATING** *.(Check the suggestions that apply to you. Use your bar chart as a re****ference.)*** Do you h**ave a moderate to clear preference for Introversion?**

**A clear preference for Introversion can make it difficult to participate in large classes or groups to gain the training and information you need and keep up your energy level at the same time.**

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**Suggestion:**

**Alternate group learning activities with time al**one. When possible, get

**one-on-one instruction or small classes.**.. **Do you have a moderate to clear preference for Extroversion?**

**A clear preference for Extroversion can make the solitary and lengthy practice sometimes necessary for success difficult to maintain without losing energy.**

**Suggestions:**

**Alternate long solitary practice and study with group activity rewards. Try to find practice partners.**

**Do you have moderate to strong Classification?**

**Because a person with moderate to strong Classification likes to quickly make connections and jump to conclusions, moderate to strong Classification can make i**t . **difficult for you to concentrate on physical movements you are learnin**g long enough to **learn them thoroughly. A person with moderate to strong Classification also would rather learn something new than go over the same material to get proficiency, so you can easily get impatient and want to go on to something else rather than finishing the task at hand. Classification would also generally prefer to wing it rather than be bothered with the details of an assignment. Because learning something ra**pidly does **not mean you have learned it w**ell, it i**s necessary to discipline your learning process to become proficient (i.e. practice, practice, practice!).**

**Suggestion:**

**Learn to be aware of your quick mental leaps and desire to move on to something new, and con**sciously slow y**ourself down to give yourself time to think about what you are learning. Realize t**hat you can be rapidly **very good at somet**hing, but not be able to sustain your good **performance. Getting proficient in a task may mean you have to** discipline your Classification ability to do so**mething over and over.**

40

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**RHYTHM MEMORY**

**SUGGESTIONS FOR COMPENSATING (CONTINUED)**

**NINU:**

**Do you have moderate to strong Idea Productivity?**

**Moderate to str**ong Idea Productivity can produce distracting ideas, **and a strong need for physical movement can make it difficult to focus and concentrate.**

**Suggestion:**

**Edit ideas and leam relaxation and focusing techniques. Find a creative outlet for Idea Productivity**..

**Do you have moderate to strong Rhythm Memory?**

**Moderate to strong Rhythm Memory itself can distract learning because of its press for physical activity.**

**Suggestion:**

**Make sure you have outlets for this ability. Get at least one hour of physical activity six days a week. Walk to and from classes, participate in athletics, dance classes, and use campus exercise facilities. Determine what your concentration maximum time is (**i.e. 15, 20 minu**tes) and** schedule **short breaks to move ar**ound, jog**, stretch, etc. then refocus on the study task. Stand up, pace, rock while you are reading or leaming. Be aware that you can learn to incorporate movement into any learning process, and experiment with adding some kind of movement to whatever you are learning.**

41

**NUMBER MEMORY**

**NUMBER MEMORY**

**DEFINITION**

**Number Memory measures the ability to recall a fairly long series of digits. It also measures the ability to recall miscellaneous material, facts, information, statistics, and trivia that may or may not be associated with anythin**g else. This **ability is referred to as non-associative or rote learning. Number Memory is the most specialized ability of the five Learning Channels and can best be used as a supporter of other abilities. It has a narrower usage than the other four Learning Channels.**

**Number memory has application in the more technical, scientific, and mathematical fields. It indicates an ability to use numerical information along with extraneous information to solve problems and make decisions and recommendations. An example is a travel agent who remembers plane schedules in detail. Another example is a sports broadcaster who can remember statistical information, yards gained, names and numbers of players and historical information such as what year Herschel Walker received the Heisman Trophy. A cashier in a shop who remembers the price of merchandise without looking is using Number Memory.**

42

**NUMBER MEMORY**

**NUMBER MEMORY**

**SUGGESTIONS FOR MAXIMIZING**

*(Whatever your score on Number Memory, use the suggestions that fit for you and maximize this ability! Check the suggestions you want to use.)*

**Make use of your Number Memory in classes that weigh heavily on numbers: Classes in math, science, technology, medicine, geography, accounting, and history all use numbers.**

**Use Number Memory for subjects that require memorization of formulas, dates, classes of organic compounds used in chemistry, anatomy a**nd physiology.

Numbe**r Memory can h**elp you in every day l**ife: remembering dates for papers due or exams; helping you recall items on a grocery list, remembering a list of names and telephone numbers.**

. 43

**NUMBER MEMORY**

**NUMBER MEMORY WORKING WITH SUPPORTING ABILITIES**

*(There are no right or wr****ong ways to use your abi****lities to support each other. See what workes best for you and use* ***it to your ad****vantage. Check the suggestions that apply to you. Use your bar chart for reference.)*

**Are you strong in Concept Organization?**

**Number Memory and Concept Organization can he**lp you with Algebra, **Geometr*y,* and Computer Programming.**

**Number Memory helps you to remember miscellaneous facts which can aid you in creative writing. Because of Concept Organization you are able to organize your** thoughts quickly and easily along **with adding interesting and unique information to**

**the text. Are you moderate to strong in Spatial Relations Theory?**

**Use number memory in math and science classes that weigh heavily on equations and numbers.**

**Are you strong in Spatial Relations Visualization?**

**Number memory can h**elp in jobs **that rely on numbers**. This ability helps y**ou read**

**per numerical information on blue prints, for instance, as it relates to the design and to the instructions for building machines, homes, commercial buildings, bridges etc.**

**Do you have moderate to strong Design Memory?**

Design Memory and Number **Memory work well together. A tec**hnique called "Mind Mapping" is expla**ined and demonstrated in Ma**pping Inner Space by Nancy Margulies, M.A. Using **this technique you can remember quantities of information in creative ways that would be difficult otherwise. You can create a picture and remember all of the details and miscellaneous pieces of information at the same time. You can outline and draw an entire text on a single sheet of paper. Then use your design memory to "take a visual picture" of your design and use your Number : Memory to recall the miscellaneous facts when being tested.**

***A*re you strong in Visual Speed and Accuracy?**

**Number Memory combines nic**ely with strong Visual Speed and A**ccuracy. When you are involved in accounting tasks, you are able to scan information quickly and** accurately.

**· NUMBER MEMORY**

**NUMBER MEMORY**

**SUGGESTIONS FOR COMPENSATING** *(Check the suggestions that apply to you. Use your bar chart as a r****eference.)***

**Limited Number Memory is not generally a problem because Number Memory is not essential for most careers. However, when it is strong it can be very useful. There are very few detractors from Number Memory. The only exceptions might be if you have any combination of strong Extroversion, strong Idea Productivity, strong Observation and or strong Rhythm Memory. Each of these alone or together can create distractions for you when trying to put something to memory. Say, for instance, for a biology class you are expected to list and delineate various classes and categories of mammals, invertebrates, birds, reptiles, insects etc. Unless you compensate in some way for any of these detractors, you** could possibly have a **difficult time memorizing.**

**Do you have a moderate to clear preference for Extroversion?**

**A clear preference for Extroversion can distract from your spending a large chunk of time studying. Spending time alone drains you of much needed energy to persist studying**

**Suggestions:**

**Find your own studying tolerance time. Then take a 10 to 20 minute maximum "visit break”. For example: 50 minutes memorizing, 10 minute visit break; 50 minutes memorizing, 10 minute visit break, etc.**

**A student with strong Extroversion has a press to process information being learned o**ut loud. Studying with a study p**artner and/or reciting informati**on being put to memory to one another, could help as you **would be able to sustain your energy level longer this way.**

45

**NUMBER MEMORY**

**SUGGESTIONS FOR COMPENSATING (CONTINUED)**

**Do you have strong Idea Productivity?**

**Strong Idea Productivity means you may have** a lot of competing thoug**hts and ideas that can distract you from focusing on your memorization task.**

**Suggestions:**

**Working to edit your ideas will be your task. Place a legal pad next to you while you study. When a thought or idea comes to you, leam to filter out and let pass those ideas of little importance. Write down only those ides you want to act on, implement, or remember after you have completed your studies. These ideas can intempt your train of t**hought **while studying. Writing down your ideas will allow you to know the ideas will be there when you complete you study time.**

A radio playing in the backgrou**nd softly may aid the need for mental stimulation, preferably music without words. See if it works for you. If not, turn off that radio!**

**Are you moderate to strong in Observation?**

**Strong Observation can b**e distracting especially if you **are trying to memorize information in a visually stimulating environment, like in the center of the library on the first floor or in a park wher**e a lot of people walk by or a lot o**f visual stimulus is present.**

**Suggestion:**

**The more sterile the environment the better. You can couple this with being away from the activity of others. Studying in a library carrel can give you an advantage an**d help keep you focused on the **task at hand: memorizing.**

**NUMBER MEMORY**

**SUGGESTIONS FOR COMPENSATING (CONTINUED)** . **Do you have moderate to strong Rhythm Memory?**

Strong Rhythm **Memory can press you to move around. Sittin**g still to **memorize may be difficult**

**Suggestions:**

**Determine your sitting tolerance" time. How long can you concentrate. without having to get up and move aroun**d? Clock the **time. Then take an "exercise break” or do whatever works for you. Power walk around the** block. Do sit ups. **Practice the latest dance steps. Do whatever physical activity interests you. But don't let this break go longer t**han 10 to 20 **minutes. Then back to work until your sitting tolerance time is up again.** No**w another exercise break etc.**

**You can even move about while memorizing by pacing, rocking, or walking on a trea**d mill.

**Chew gum while you memorize.**

**Write out what you are trying to memorize. Or, type it out on your computer. Just the movement of your hands helps satisfy your need for movement.**

If you do not ge**t car sick and are traveling by car or bus, the movement of the car can help satisfy your need to move and possi**bly help you stay **focused.**

*47*

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NON-SPECIALIZED VOCABULARY

**NON-SPECIALIZED VOCABULARY**

**DEFINITION**

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**Vocabulary, as opposed to true natural abilities, is clearly learned. Non-Specialized Vocabulary is not conversational vocabulary, but rather an indicator of how broad one's general knowledge is. Strong Vocabulary is an essential tool for gain**ing knowledge.

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**It appears that Vocabulary and thinking and knowing are inextricably mixed. A person must have a large number of words stored in the brain for quick reference. And, the person must be able to distinguish various meanings clearly in order to process information. If this is not the case, comprehension is hindered.**

**Educational and psychological literature show time and again the correlation between vocabulary and academic success as well as success in many t**ypes of jobs.

**Just as any serious athlete must perfe**ct his or her skills in **order to advance, so you must learn vocabulary in order to reach a certain level of competence.**

**Words that are concrete are easier to leam and remember such as objects and things: cat, chair, store, brother etc. Whereas abstract or intangible words are more difficult to learn and remember, because they are more dif**ficult to define and understand, such as: soul, chivalry, law, **infinity.**

**Concrete words tend to be native to us and abstract words seem more foreign. It is the learning of these abstract, intangible words that must be addressed.**

48

NON-SPECIALIZED VOCABULARY

NO**N-SPECIALIZED VOCABULARY**

**SUGGESTIONS FOR IMPROVING**

*(Check the sugg****estions you want to use.)***

**Regardless of your score, make a conscious effort to expand your vocabulary.**

**Verbal Memory is one of the major factors in developing a strong Non-Specialized** Vocabulary. Building vocabulary can be don**e using books specifically written for building vocabulary. Some books go into great detail in order to explain the word com**pletely, so that **the new word will clearly become a permanent part of your thinking, speaking, reading, and writing vocabulary. On**e such book is Rapid Vocabulary Builder **by Norman Lewis.**

**There are“ a word a day' calendars that you can purchase. This can be an easy way to focus on building your vocabulary. Make flash cards of vocabulary to learn.**

The more you read just for p**leasure the more your vocabulary can increase.**

**Make flash cards for each vocabulary word, illustrating cach card with an appropriate picture or design. (Observation and Design Memory).**

**Tonal Memory is also an excellent support to learning vocabulary. Cassette tapes specifically recorded for vocabulary building are on the market. They can be quite creative. One such series is Word Builders produced by Audio University. Each word is presented as a dramatic presentation with different actors participating in the drama using the new word in story form so as to enable you to more easily remember the new word.**

**dew**

Auditory students can be drilled out loud. This can b**e done with a partner or in a group, Back and forth, one student can say the word, and another can give the definition all the** while taking in the **new words through their ears.**

NON-SPECIALIZED VOCABULARY

**SUGGESTIONS FOR IMPROVING (CONTINUED)**

**For moderate to strong Rhythm Memory students, the sheer act of writing and designing a flash card helps you memorize the word.**

**O**

**You can strongly enhance your memory by acting words out.**

**Moderate to strong Rhythm *M*emory can assist you by incorporating movement into your studies. Use a set of steps. Let each step represent a vocabulary word. Walk up and down the steps giving the definition of the word as you step on each s**tep. .

**Moderate to strong Rhythm Memory coupled with moderate to strong Tonal *M*emory can be tapped to facilitate vocabulary b**uilding**. One example is, as you power walk you can listen to Vocabulary building tapes simultaneously. This double use of two channels can be powerful.**

**Reading for pleasure increases your vocabulary. Read acti**on packed books that **can satisfy strong Rhythm Memory.**

**Another way** to build vocabulary is to study the roots and **prefixes that form! words. O**ne such book entitled Words People Use by A. J. Roth and E. O. **Camacho** build**s each chapter around a particular word family. For example, one basic root word** is the word fidelis, meaning faith. If you know the root word, it's **easier to analyze a word such as infidel by considering the prefix "in" which means** "not." Infidel, then, **would be "one who is not faithful."**

**You can purchase a hand held electronic dictionary that quickly gives you the meaning of a word. Seiko Instruments puts out an American Heritage Dictionary and Rogers II:** the New The**saurus. A dictionary works just as well but takes more time to look up the word in question.**

PERSONALIZED STUDY S**TRATEGIES**

**PERSONALIZED STUDY STRATEGIES**

**INSTRUCTIONS**

**Using what you now know about yourself, along with your Learning Strategies Worksheets, and your bar chart; answer the questions in the back of your worksheets. Try not to think in absolutes as you work on the questions, meaning there may be some abilities and combinations of abilities we have not yet determined ourselves. You are free to consider other factors as you progress with the questions such as your own personal INTERESTS and VALUES. For any new - insights you glean about yourself, please consider that information important to include as you work through the questions.**

**Remember what we are measurin**g on The Highlands Ability **Battery is not IQ, but speed and ease. If a scale is in the limited range, that only means activities based around that ability will not come naturally and easily for you. Simply put, we are talking abou**t a TIME issue..

**Don't necessarily rule anything out. For example, you may have a strong interest in music, but see that your Tonal Memory is moderate to limited and your Pitch Discrimination is moderate to limited; however your Rhythm Memory is strong. You might want to try percussion instruments and see how it goes for you or spend the time needed to play the piano etc.**

**We have provided a PERSONALIZED STUDY STRATEGIES GUIDE for you to consult as you** work through the questions. Consider these “jump **starts”, if** you will, to help you process all **that you are leaming.**

**If you are work**ing in a group as you go through **the Learning Strategies workbook, you might choose to share this summary with the group as a way of assimilating all you have learned about yourself. Tell the group what works best for you and what doesn't work as qu**ickly. Keep in **mind each of you is unique and that's OK.**

51

**PERSONALIZED STUDY STRATEGIES**

**PERSONALIZED STUDY STRATEGIES GUIDE**

***(Write your answers in the work****sheets booklet.)*

**1. Based on all the information you now know about yourself, what is your best strategy or**

**strategies for creating a study environment that is likely to work best for you and why?**

**Some scales to consider are: GENERALIST, SPECIALIST, INTROVERT, EXTROVERT,**

**IDEA PRODUCTIVITY, OBSERV*A*TION, VERBAL MEMORY, VISUAL SPEED AND** . **ACCURACY, TONAL MEMORY, RHYTHM MEMORY AND PITCH DISCRIMINATION.**

**You may think of others we haven't t**hought of, Add those.

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**2. Based on your ability profile, what is your best strategy or strategies for note taking?**

Some of the following aid in taking thorough notes: **CONCEPT ORG*A*NIZATION - can' organize information while taking notes and/or organize into outline form. TONAL MEMORY - can hear and remember lecture information; TYPING SPEED - can write**

**quickly; Moderate to Strong CLASSIFICATION - can make quick connections; limited IDE*A* PRODUCTIVITY - can focus on what is being said or read; limited OBSERVATION - can stay focused in a classroom that** is visually stimulating**; Moderate to Strong RHYTH*M M*EMORY - may be satisfied by the movement used in taking notes by hand or by word processing,**

**Taping Lectures.**

**Strong Tonal Memory. Especially if you have limited Verbal Memory: review**

**by listening to lecture again. . Taping Lectures then transcribing lectures into written format, disposing of tape.**

**Limited TONAL MEMORY & strong VERBAL MEMORY: read and re-read the**

**transcribed notes.**

**• Xeroxing another student**'s notes and filling in you**r notes.**

**Limited TONAL *M*EMORY, Limited WRITING SPEED Taking notes in outline form.**

**Strong CONCEPT ORGANIZATION aids in organizing lecture material into an**

**outline format.**

**Taking notes in shorthand using symbols.**

**Strong DESIGN MEMORY aids in remembering the shapes or symbols. NUMBER MEMORY and VERBAL MEMORY aids in remembering the non associated symbols with the real word.**

**PERSONALIZED STUDY STRATEGIES**

**Taking notes in pictorial form.**

**Moderate to strong IDEA PRODUCTIVITY aids the student in coming up with creative ways of translating either lecture material or written material into pictorial form.**

**DESIGN MEMORY helps the student remember the design created so as to be able to internalize the information presented.**

**...**

**Taking notes on a laptop computer.**

**A student with strong Typing Speed can benefit from using a laptop computer to take notes.** Additional cons**iderations are Strong IDEA PRODUCTIVITY – word processing m**ay help the **student stay focused. Strong RHYTHM MEMORY may be satisfied by the movement of typing.**

**Sitting close to the front.**

**Sitting close to the front helps the student with Strong OBSERVATION eliminate a number of distractions thus being able to better focus.**

3. Based on your Ability Profile, which of the following should be easy for you and why?

**• Class participation**

Scales to consider: **GENERALIST, SPECIALIST, INTROVERT, EXTROVER*T,* İDE*A***

**PRODUCTIVITY, CLASSIFICATION, TONAL MEMORY Writing Creative Papers**

**Scales to Consider: Moderate to Strong**

**CONCEPT ORGANIZATION; quickly organize thoughts IDEA PRODUCTI*V*ITY; sufficient idea generation VOCABULARY; large pool of words to pull from OBSERVATION; write and describe what is seen PITCH DISCRIMINATION; creative sensitivity to their environment NUMBER MEMORY; pull in miscellaneous facts and information**

53.

**PERSONALIZED STUDY STRATEGIES**

**Writing Research */* Term Papers:**

**Scales to Consider.**

**SPECIALIST*/*INTROVERT Moderate to Strong:**

**CLASSIFICATION CONCEPT ORGANIZATION SPATIAL RELATIONS THEORY VOCABULARY OBSERVATION NUMBER MEM*O*RY VISUAL SPEED AND ACCURACY TIME FRAME ORIENTATION** Limited to Moderate **IDEA PRODUCTIVITY**

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**Reading Loads:**

**Strong VERBAL MEMORY, moderate to strong VISUAL SPEED and ACCURACY - can take classes with heavy reading loads. Limited VERBAL MEMORY - Take fewer classes per quarter. Make up classes in summer school. Arrange classes so some are geared to reading and others are**

**geared t**o light reading o**r math classes.**

Planning Ahead:

**Determined by TIME FRAME ORIENTATION.**

**Workin**g with deadlines *(*cla**ss assignments, c**ollege/job applications):

**TIME FRAME ORIENTATION CONCEPT ORGANIZATION**

**WORKING ON GROUP PROJECTS:**

**GENERALIST**

**Moderate to strong EXTROVERT** 4. What subjec**t matters (classes and** courses) might be less difficult for you and why? 5. What subjec**t matters** (classes and courses) might be mor**e difficult for you and why?**

**These two questions are answered by looki**ng at the following Ability Scales:

**CONCEPT ORGANIZ*A*TION - writing, geometry, algebra, computer programming, logistics etc. IDEA PRODUCTIVITY - creative classes, brain storming classes, classes** requiring participation etc. **SPATIAL RELATIONS THEORY - higher mathematics such as calculus, physics, computer science. Courses that study systems: computer systems, universal systems, government systems, sociological systems, family systems, anthropological systems, corporate systems etc. SPATIAL RELATIONS VISUALIZATION - hands on classes such as art,** sculpting, shop, lab cl**asses, engineering, tech**nology, **anatomy, chiropractic,** physical therapy, construction etc.

54

PERSONALIZED STUDY **STRATEGIES**

**Limited SP*A*TIAL RELATIONS VISUALIZ*A*TION - abstract liberal arts classes such as English Literature, Psychology, History etc**... . Strong Visual Abilities **(DESIGN MEMORY & OBSERVATION) - two dimensional classes such as graphic design, drafting classes for interior design, landscape design, architectural design, map making, photography, painting etc.. Moderate to Strong VERBAL MEMORY - aids in leaming to read and write a foreign language, leam vocabulary etc. Moderate to Strong TONAL MEMORY - aids in learning to listen and speak a foreign language. Str**ong Musical Abilities (**TON*A*L, RHYTHM & PITCH) - can be expressed in playing a musical instrument, singing, dancing, or sports etc. depending on the student's interests and the individual strengths of each of the musical abilities.**

6. W**hat size school and classes might you be best suited for?**

**Preference for INTROVERSION - smaller Preference for EXTROVERSION - larger**

*7.* Wh**at extra curricular activities or hobbies might you enjoy and why?**

**Some scales to consider:**

**GENERALIST*/E*XTROVERT, GENERALIST*/*INTROVERT - Team sports, Team activities SPECIALI*S*T/INTROVERT - Individualized sports, Individualized activities**... **SPECIALIST*/EX*TROVERT - May enjoy Team or Individualized sports and activities. May have a press to specialize within the activity or sport.** Musical Abilities: **TONAL, RHYTHM, and or PITCH; VISUAL SPEED and**

**ACCURACY** (reading score Sheets): **Artistic Creative** Abilities: **IDEA PRODUCTIVITY, DESIGN MEMORY, PITCH DISCRIMINATION**

**Three Dimensional Abilities: SP*A*TIAL RELATIONS VISUALIZATION Two Dimensional Abilities: DESIGN MEMORY and OBSERVAT*I*ON**

See if you **can think of others. Add those.**

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