V A R K

HOW DO I LEARN BEST?

a student's guide to improved learning

NEIL FLEMING &
CHARLES BONWELL

Revised and reprinted May 2019.
ISBN Number: 978-0-473-07810-2

Published by the authors.

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Cover design
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Other Books by Neil Fleming:

Learners' Preferences:
VARK Strategies
ISBN 978-0-473-07956-7
This VARK book of 128 pages is for teachers, trainers and learners interested in learners' preferences and strategies to help them use them. It is of little use to identify a learner's preferences without providing suggestions about how to respond to that discovery. The book offers case studies and examples of strategies that cater for the multimodality that is found in every aspect of life. It also underpins the basis for the VARK questionnaire and the accompanying helpsheets.

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HOW DO I LEARN BEST?
A LEARNER'S GUIDE TO IMPROVED LEARNING

V A R K
Visual, Aural, Read/Write, Kinesthetic

By

Neil Fleming and Charles Bonwell

May 2019

A Brief Overview of VARK and its Development.

VARK is an acronym made from the initial letters of Visual, Aural, Read/Write and Kinesthetic. These four communication modes are used in learning. Learners use them when they are taking in, or giving out information. They have preferences for some modes and not for others. For example some learners prefer to *'read about it'* others to talk or draw or experience their learning. Some have no strong preferences for any single communication mode. They may be indifferent to which method they use to express their learning – they are multimodal in their preferences. This book is about identifying preferences and using them to be successful learners. It will provide strategies that align with your preferences and it will encourage you to play to your strengths.

Although we have known for centuries about different communication modes, the VARK package, initially developed in 1987 by Neil Fleming, was the first to systematically present a modal preferences questionnaire with *VARK Helpsheets* for learners, teachers, employers, trainers, employees and others to use when communicating. It also sought to be advisory rather than diagnostic or predictive. A brief inventory (16 questions) is another advantage because it reduces *"survey burnout and fatigue"!*

Many researchers had focused on visual, aural and kinesthetic characteristics (V, A and K), but Fleming subdivided the visual mode into two parts; visual (iconic) and text (symbolic), creating four possibilities for modality preferences. A fifth category was added to cater for the 55% - 60% of respondents who have multiple preferences (multimodal).

The VARK materials are widely used in educational and business institutions and have received high acclaim for their powerful simplicity, their ability to spark discussion about learning and the fact that VARK makes intuitive good sense. The questionnaire is now in over 30 languages.

The first VARK questionnaire was designed in 1987. Version 2.0 was launched in January 1998 with the assistance and insights of Dr. Charles Bonwell, then at St Louis College of Pharmacy, Missouri, USA. The questionnaire has been altered since and, after major reviews in 2006, 2009 and 2013. This major revision in 2019 has produced Version 8.0.

> *"It does seem, then, that teachers may unconsciously try to push their pupils into their own mode of thinking, once again a result of people's inability to appreciate the radical ways that pupils think."*
>
> S.V. Thompson (1990) in *Visual Imagery*.

People benefit from knowing about their individualized ways of learning. Even the exercise of reflecting about learning (metacognition) is a useful technique for improving our communication. VARK is a tool for any learning task. It is as helpful in running a business as it is for studying at a college or university or coaching a team or an athlete. One of its side benefits is that it is a catalyst for conversations between coaches and mentors, learners and learners; teachers and teachers; and trainers and their clients.

The citation for the initial research paper that launched VARK is:

Fleming, N. D. and Mills, C. (1992), Not Another Inventory, Rather a Catalyst for Reflection From *To Improve the Academy, Vol.* 11, 1992. page *137.*

VARK is best used when there is a need;
when learners know that they can achieve more.

What Others Say About VARK

Of all the pedagogical theories that I have encountered, this one seems the most intuitively appealing, the clearest and the most practical. I am especially impressed by the lists of practical techniques that students can use to maximize their learning within their own preferences. Jonathon Powers, Philosophy Dept., Boston College, USA.

Because of VARK it is surprising how many things I now understand about myself that makes so much more sense. Robyn MacQuarrie, Student, Dalhousie University, Halifax Canada.

I did a review of learning styles research for a M.Ed. paper on adult learning and memory. I had found it a very confusing field and with relief read about VARK. It is the most credible of all the models, inventories and research I examined. Sharon Lake, Student, Christchurch, New Zealand.

I have been using the VARK with students that are learning to be peer tutors. It helps them understand both how they learn and that others may learn differently. Teri A. Vigars, Academic tutor and Coordinator of Peer Tutoring, SUNY Cortland, USA.

I find the inventory to be easy to use and understand and students find the results to be realistic and understandable. Dr. Carolyn Schnell, Director, College of University Studies, North Dakota State University, USA.

The earlier that teachers, parents and administrators realize a child's unique learning style, then the more progress we can make as a team. I will definitely be using VARK with my students. Gay Mullinax, Edgefield, USA.

I would like to use the test for forming work teams so they can have diverse and hopefully great learning and work experiences. Hulya Julie Yazici, Assistant Professor of Management, University of Wisconsin, USA.

Items in the VARK inventory make it quick and easy for a user to complete without losing interest. Dr Barbara B Levin, MERLOT Teacher Education Discipline Group. University of North Carolina at Greensboro, USA.

I shared VARK in a number of settings. The faculty has been transformed! They are finding very innovative ways of changing their teaching practice to accommodate the range of learners that they now realize must be in their classrooms. I would argue that nothing else I have shared with faculty through the Center has had this much immediate impact on faculty. Karin Sandell@oak.cats.ohio.edue.

I use the learning preferences frequently as I advise students on how they can be successful in the course. Ann Stalheim Smith, Kansas State University, USA.

We found VARK very interesting and much more applicable than some of the other learning styles instruments being used. David A Rosenthal, Manager, Information Systems, Pitt County Memorial Hospital, Eastern Carolina, USA.

In the General Biology class I am developing I plan to have my students take the VARK inventory at the start up of the class. The four components of the VARK inventory can enhance the quality of one's courses by focusing on learning styles instead of just relying on the instructor's own personal tastes. Bryan S Lawler, CSU, USA.

I continue to find VARK extremely useful in my work, especially in individual consultations with students. I had always thought of VARK as being helpful in identifying student preferences/strengths, but it has been especially useful in helping students identify weaknesses. There seem to be many instances in medical education (and I suspect health professions education is not unique in this respect) that place especially high demands on specific modes of information processing. Of course students who do not process oral information well, can read this information at some other time, but usually a large segment of lab sessions is lost on these students. Not only is this part of the lab a waste of time for such students, but a very frustrating experience as other students 'get' *information that these students totally miss. I have been amazed at the progress of medical students after they work on improving study strategies in their* 'void' *or* 'low preference' *areas. Many report increases of 10-15 points in course averages after working on strategies that strengthen these areas.* Judith E Garrett, University of Arkansas Medical School.

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Chapter One: WHAT IS VARK?

WHAT ARE *LEARNING STYLES*?

Firstly, VARK is not a *learning style*. The term *learning styles* is frequently used in businesses, schools, universities and colleges and there are a variety of books about them. A *learning style* refers to an individual's preferred ways of gathering, organizing, and thinking about information[1]. There are various authors who have written about different types or categories within the field of learning styles.[2] A learning style is an amalgam of preferences and VARK is not a learning style because it is only one of the preferences that make up a learning style. VARK is the part that deals with *perceptual modes*, which means that it is focused on the different ways that learners *take in* and *give out* or *express* information. Learners have different learning styles, they learn in different ways and **one preference in** a learning style is the preferences for the intake and the output of ideas and information.

No learner or teacher is restricted to only one mode for communication intake or output. Even so, it is interesting to note that there are some dominant preferences and some voids (zero scores for a preference) among different people. Some exhibit not only a strong preference for one particular mode but also relative weaknesses in other modes. For taking in our environment we use our senses - sight, hearing, taste, touch and smell. In academic learning we usually use our sight, our speech and our hearing (*Visual, Aural* and *Read./write*) with less importance placed on taste, touch and smell. Some learners like to use all their senses at once by experiencing their learning and this uses their *Kinesthetic* preferences.

The power of VARK is that learners, understand it intuitively and it seems to fit best practices. It provides a useful way, therefore, to begin our discussion with the four VARK modality preferences shown in italics above.

WHY VARK?

The acronym VARK stands for **V**isual, **A**ural, **R**ead/Write, and **K**inesthetic. These are the sensory modalities that are used for *learning* any information. When we are training, teaching, coaching or mentoring these four categories seem to reflect the experiences of our learners. Although there is some overlap between them, for the purposes of this book, they are defined as follows. But, before reading about the definitions, keep in mind that there will be combinations of these. So a learner may have a preference for using *Visual* and *Read/Write* (V and R), or *Aural* and *Kinethetic* (A and K) or all four (V, A, R and K). All the possible combinations of V, A, R and K are part of having *Multimodal* preferences.

Visual (V):

This preference includes the depiction of information in charts, graphs, flow charts, and all the symbolic arrows, circles, hierarchies and other devices that are used to represent what might have been presented in words. Layout, whitespace, headings, patterns, designs and color are important in establishing meaning. Learners with a strong *Visual* preference are more aware of their immediate environment and their place in space. It does not include pictures, movies, videos and animated websites (simulation). They belong with *Kinesthetic*, defined below.

Aural (A):

This perceptual mode describes a preference for information that is spoken or heard. Learners with this modality report that they learn best from discussion, oral feedback, asking questions, email, mobile chat, texting, discussion boards, oral presentations, classes, tutorials, and talking with others.

Read/Write (R):

This preference is for information displayed as words, either read or written. Typically it means those who prefer books and handouts – anything with text. Not surprisingly, many academics and high-achieving learners have a strong preference for this modality. These learners place importance on precision in language and are keen to use quotes, lists, texts, books, brochures, handouts and manuals. They have a strong reverence for words.

Kinesthetic (K):

By definition, this modality refers to the *"perceptual preference related to the use of experience and practice (simulated or real)."* Although such an experience may use other modalities, the key part of any definition is that the learner is connected to reality, *"either through experience, example, practice or simulation,"* It is often referred to as

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1 Davis, 1993, p. 185

2 Murrell and Claxton (1987) categorized learning styles into four groups: models that focus on 1) personality characteristics (e.g., extrovert v. introvert); 2) information processing (e.g., a holistic v. a sequential approach); 3) social interaction, how students behave and interact in the classroom e.g., learning oriented v. grade oriented); and 4) instructional preference, the medium in which learning occurs (e.g., graphic representation, listening, reading, or direct experience). VARK is clearly an example of the instructional preference category.

"learning by doing" but that is an oversimplification especially for higher levels of learning which are often abstract and sometimes difficult or dangerous or slow. Such learning can still be made accessible for learners with a *Kinesthetic* VARK preference. This mode uses many senses (sight, touch, taste and smell) to take in their environment and to experience and learn new things. Some theorists believe that movement is important for this mode but it is the reality of the situation that appeals most.

Before you read any further you should complete the 16 questions below. It is not a test, but it will make more sense of what you are about to read. There are some instructions at the top of the questionnaire. Not everybody reads them. The most important instruction is that you may choose **more than one answer** to any of the questions. It may be somewhat more interesting to later limit yourself to one answer per question or maybe two, but that is your choice. Please fill in the questionnaire even if you have filled it in before. Just one more time! If you prefer to complete the questionnaire online go to www.vark-learn.com get your four scores and find out your VARK learning preference.[3]

The VARK questionnaire indicates your preferences for the way you work with information. When you have completed the questionnaire you should fill in the boxes on page 4 and record your profile of preferences.

THE VARK QUESTIONNAIRE : Version 8.0

Choose the answer which best explains your preference and circle the letter(s) next to it. **Please circle more than one** if a single answer does not match your perceptions. Leave blank any question that does not apply.

QUESTION ONE

I need to find the way to a shop that a friend has recommended. I would:

V) use a map.
A) ask my friend to tell me the directions.
R) write down the street directions I need to remember.
K) find out where the shop is in relation to somewhere I know.

QUESTION TWO

A website has a video showing how to make a special graph or chart. There is a person speaking, some lists and words describing what to do and some diagrams. I would learn most from:

V) seeing the diagrams.
A) listening.
R) reading the words.
K) watching the actions.

QUESTION THREE

I want to find out more about a tour that I am going on. I would:

V) use a map and see where the places are.
A) talk with the person who planned the tour or others who are going on the tour.
R) read about the tour on the itinerary.
K) look at details about the highlights and activities on the tour.

QUESTION FOUR

When choosing a career or area of study, these are important for me:

V) Working with designs, maps or charts.
A) Communicating with others through discussion.
R) Using words well in written communications.
K) Applying my knowledge in real situations.

QUESTION FIVE

When I am learning I:

V) see patterns in things.
A) like to talk things through.
R) read books, articles and handouts.
K) use examples and applications.

[3] This questionnaire is online at the website: www.vark-learn.com.

QUESTION SIX

You want to save more money and to decide between a range of options. I would:

V use graphs showing different options for different time periods.
A talk with an expert about the options.
R read a print brochure that describes the options in detail.
K consider examples of each option using my financial information.

QUESTION SEVEN

I want to learn how to play a new board game or card game. I would:

V) use the diagrams that explain the various stages, moves and strategies in the game.
A) listen to somebody explaining it and ask questions.
R) read the instructions.
K) watch others play the game before joining in.

QUESTION EIGHT

I have a problem with my heart. I would prefer that the doctor:

V) showed me a diagram of what was wrong.
A) described what was wrong.
R) gave me something to read to explain what was wrong.
K) used a plastic model to show me what was wrong.

QUESTION NINE

I want to learn to do something new on a computer. I would:

V) follow the diagrams in a book.
A) talk with people who know about the program.
R) read the written instructions that came with the program.
K) start using it and learn by trial and error.

QUESTION TEN

When using the Internet I like:

V) interesting design and visual features.
A) audio channels where I can listen to podcasts or interviews.
R) interesting written descriptions, lists and explanations.
K) videos showing how to do or make things.

QUESTION ELEVEN

I want to learn about a new project. I would ask for:

V) diagrams to show the project stages with charts of benefits and costs.
A) an opportunity to discuss the project.
R) a written report describing the main features of the project.
K) examples where the project has been used successfully.

QUESTION TWELVE

I want to learn how to take better photos. I would:

V) use diagrams showing the camera and what each part does.
A) ask questions and talk about the camera and its features.
R) use the written instructions about what to do.
K) use examples of good and poor photos showing how to improve them.

QUESTION THIRTEEN

I prefer a presenter or a teacher who uses:

V) diagrams, charts, maps or graphs.
A) question and answer, talk, group discussion, or guest speakers.
R) handouts, books, or readings.
K) demonstrations, models or practical sessions.

QUESTION FOURTEEN

I have finished a competition or test and I would like some feedback. I would like to have feedback:

V) using graphs showing what I achieved.
A) from somebody who talks it through with me.
R) using a written description of my results.
K) using examples from what I have done.

QUESTION FIFTEEN

I want to find out about a house or an apartment. Before visiting it I would want:

V) a plan showing the rooms and a map of the area.
A) a discussion with the owner.
R) a printed description of the rooms and features.
K) to view a video of the property.

QUESTION SIXTEEN

I want to assemble a wooden table that came in parts (kitset). I would learn best from:

V) diagrams showing each stage of the assemby.
A) advice from someone who has done it before.
R) written instructions that came with the parts for the table.
K[4]) watching a video of a person assembling a similar table.

Please fill in these boxes to record the scores for your preferences.

Total for the questionnaire				
	V	**A**	**R**	**K**

You may need the total of your four scores for a later task. The total of my four scores is: ☐

You may have a **single VARK** preference if your highest score is well above the others. How much it stands out decides whether it is a ***Mild, Strong*** or a ***Very Strong*** **single preference**.

WHAT IS NORMAL?

There is nothing normal about preferences for communication modes just as there is nothing normal about your favorite foods, cellphones or movies. Data from the 278,000 who provided information on our website in 2018 provides the following information indicating the percentage for each of the 17 different VARK possibilities.[5] Remember this data is skewed towards those who use the Internet so it is not necessarily a *"normal"* distribution that might come from a survey of many thousands of people.

Multiple preferences		Single preferences	
VARK Type Two	22.9%	V	4.0%
VARK Transition	5.1%	A	8.8%
VARK Type One	7.4%	R	9.0%
VRK	2.4%	K	14.2%
VAK	4.1%	Subtotal	36.0%
VAR	1.1%		
ARK	5.2%		
VR	1.2%		
VA	0.8%		
VK	2.9%		
AK	6.2%		
RK	2.5%		
AR	2.2%		
Subtotal	64.0%		

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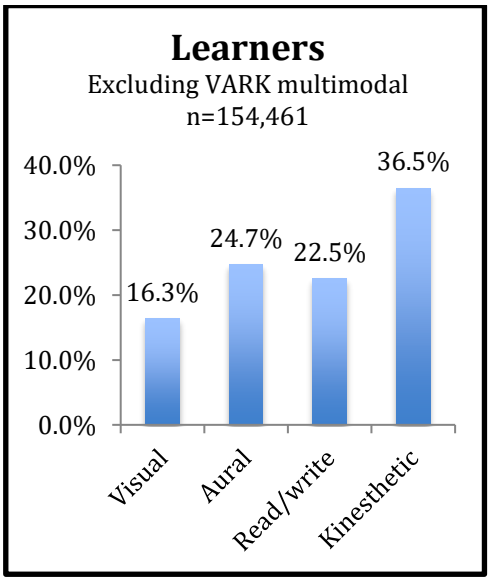
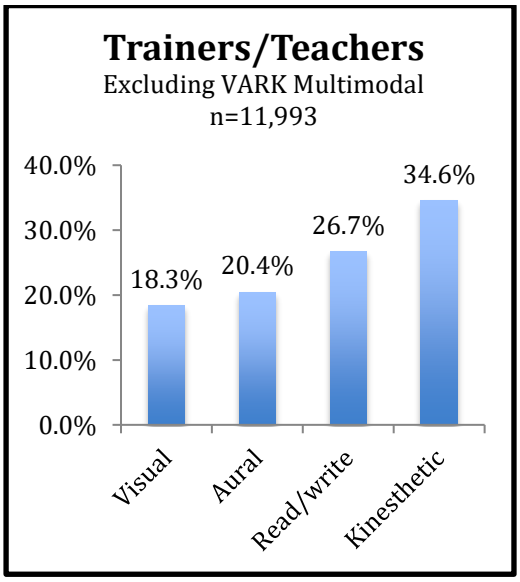
[5] The website may have more up-to-date data in the section titled, *Statistics*.

In a group of 100 learners this data from the VARK website would indicate that:
64 people would be multimodal.
Four would have a single preference for the Visual mode.
Nine would have a single preference for the Aural mode.
Nine would have a single preference for the Read/write mode and
Fourteen would have a single preference for the Kinesthetic mode.
and
the teacher or trainer would probably have one of the multimodal preferences for learning! (not necessarily for *teaching*)!

If the same data were rearranged to show the percentages of respondents who had <u>some</u> Visual, or Aural, or Read/write or Kinesthetic preference there are some interesting comparisons. Note that those who have all four preferences (the multimodal category V, A, R and K) have been excluded, as they would only add similar *"weight"* to each bar in the graphs. In the graph below, the percentage that has some Visual preference includes all those with a Visual *single preference* and also those who have Visual as part of their *bimodal* and *trimodal* preferences. This is also done for the other modes. So double counting is included with bimodal preferences being counted twice (e.g. VA -*Visual* and *Aural)* and trimodal preferences three times e.g. ARK - *Aural, Read/write* and *Kinesthetic.*





The learners have a slightly larger proportion than trainers and teachers for Aural and Kinesthetic. Those who teach and train others have slightly more Read/write and Visual in their preference set of scores. It is interesting that the two groups are a little different in their modality preferences for the ways in which they **<u>learn</u>**. Learning preferences are not the same as teaching/training preferences[6]. How might this affect the training and teaching **<u>methods</u>** and the learners' learning **<u>strategies</u>**?

SINGLE PREFERENCES

In the latest VARK database (n=278,000) 36% had single preferences. The remainder (64%) had multimodal preferences. For teachers and trainers, their single preferences made up 42% of their preferences and half of that figure had Read/write as their first and single VARK preference. For learners, single preferences made up 36% of their preferences and 15.8% were for Read/write. Read/write is by far the largest single preference modality for teachers (50%) and for learners (44%). For both groups the Visual and Aural single preferences are much less common though they are, obviously still important.

[6] There is a newly developed questionnaire for those who teach and train that may answer this question.

Read the full version!
You can purchase it here: http://vark-learn.com/product/how-do-i-learn-best/

A Brief Biography of Neil Fleming

Neil D Fleming is first and foremost a teacher. He has taught in universities, teacher education centers and high schools. Before working for eleven years in faculty development at Lincoln University, he was for nine years a senior inspector for the 105 high schools in the South Island of New Zealand. This involved being a critical observer of over 9000 *'lessons'* in classrooms. His task in those years involved observing teachers and learners and writing a report for the college or high school about the effectiveness of the teaching by its impact on learning. He developed a healthy respect for the different ways in which learners learned and teachers taught.

He re-established a faculty development center (1987-98) and developed an ambitious web-based learning project and a strategic plan for information technology at Lincoln University, New Zealand. In this work he encouraged teachers to respond to the diversity of learning styles among their learners. He also worked closely to improve learners' strategies for academic success as well as teaching regular classes in communication and extension.

Neil has written best-selling educational textbooks on Consumer Education and Economics and with Dr. Charles Bonwell developed the VARK questionnaire and support materials that can be viewed interactively at www.vark-learn.com. One of his books applies the VARK principles to athletics and sports and is titled *Sports Coaching and Learning.* Another applies VARK principles and best practice to the world of business.

Neil has presented active, participatory workshops at major conferences in the UK, USA, Canada, Australia and New Zealand, Turkey, Thailand, India, Malaysia and Brunei on such topics as assessment and evaluation, curriculum redesign, marking and grading, learning styles and shifting the campus focus from teaching to learning. As a scholar with an international perspective, his writing can be found in key faculty development journals in Britain, North America and Australasia. He has undertaken educational consultancies in Samoa, Fiji, Tonga, the Cook Islands and Papua New Guinea.

Today, Neil, in semi retirement, tends to his very active website and has a regular seat as a lay member of the Ethics Committee for Education Research at the University of Canterbury. He is an active volunteer for his local primary school and for a health provider and he has a beehive and makes solid-wood furniture as hobbies.

A Brief Biography of CHUCK BONWELL

Charles C. Bonwell has been engaged in the scholarship of teaching for over twenty years. A former Professor of History, he has facilitated workshops nationally and internationally for faculty and teaching assistants on active learning and critical thinking, and has given the keynote address at numerous regional, national, and international conferences. In 1986 Bonwell was one of 50 faculty honored by the American Association of Higher Education and the Carnegie Foundation for the Advancement of Teaching for his *"outstanding educational leadership."* He is co-author, with James Eison, of the best-selling ASHE-ERIC monograph *Active Learning: Creating Excitement in the Classroom* (1991). In 1996, Jossey-Bass published *Using Active Learning in College Classrooms: A Range of Options for Faculty* in 1996, co-authored with Tracey Sutherland.