

THE ISSUE AS TO SHORTHAND SPEED

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What is understood when we talk about "shorthand speed" is how many words per minute someone can write using shorthand. A good shorthand speed is around 120 words per minute. At this speed, this represents writing in shorthand, in theory, two words per second - which is truly a great feat!

Just by way of comparison, according to Juvêncio José Barbosa, in his book "Literacy and Reading", "we read at a normal speed of approximately 250 words per minute (4 to 5 words per second)".

Before getting into the theme itself, I would like to take this opportunity to deplore that, unfortunately, we still lack a scientific study performed by neuroscientists on the incomparable value of shorthand as an exercise for the brain. Only Neuroscience, using their own equipment, such as an MRI, will be able to discover which areas of the brain are activated and remain activated while using shorthand, and how these areas are developed and strengthened as we achieve greater and greater shorthand speeds by training progressive speed dictations.

What happens inside the brain in relation to attention, memory and perception? And, what happens inside the brain in areas related to manual dexterity, in the intricate hand movements and motor coordination? Which areas of the brain become denser while practicing shorthand, when transforming sounds into shorthand symbols and outlining these signs instantly on paper (or on the stenotype machine)? What different groups of neurons are used? Does training shorthand

speed increase the size of some brain structure the same way a muscle develops with weight lifting?

In case such a scientific experiment were to be done, I think we would all be surprised with the results that would show, in every detail, shorthand as an exceptional exercise for the brain!

➤ **The speed of longhand versus the speed of shorthand.**

Shorthand is an extremely abbreviated writing. Due to the simplification and significant savings through graphical representations, it is possible to achieve great levels of speed when writing. This unique use transforms shorthand into a valuable instrument.

With longhand, it is impossible to write with great speed. In reality, the alphabetical writing was by no means invented with the intention of writing abbreviations and/or with speed. The primary aim of longhand is, was and will always be, only and solely to transmit information, knowledge, and leave records.

Longhand, which is extensive and slow by nature, only allows us to write legibly, in average, 25 to 30 words per minute.

Learning longhand is summarized into the learning of writing and reading. On the other hand, learning shorthand goes far beyond the learning of writing and reading.

After learning shorthand signs and rules of the new graphical system (shorthand), the student begins a daily and systematic training of progressive dictations to acquire speed. In this training period, listening and visual perception, mentally developing signs, motor coordination, writing on paper and transcribing shorthand symbols into longhand, come into play.

As the students advance in the shorthand speed training, they gain gradual conditioning that will enable them to write in shorthand at

greater speeds. Training speed is a progressive, dynamic, live, full-time, continuous and individual process, demanding, as a basic condition to jump from one speed to another, personal effort and involvement as well as training and “maturing” at each speed level.

Shorthand speed – it is always worth repeating and emphasizing - is achieved gradually, step by step, through progressive dictations, being slow in the beginning (20 words per minute), and adding five words per minute, as the person advances. Therefore, in the beginning there are 20 wpm, 25wpm and 30wpm dictations but with the possibility of arriving at super speed dictations of 140wpm.

In view of the above, we can enhance the remarkable superiority of shorthand in relation to longhand. In a ludic comparison, shorthand is the Formula 1 - in writing -while longhand is the wagon.

It is often said that shorthand is the only writing system that can keep up with thinking. To a certain sense, this is true! And this truth is known to all skilled stenographers who can quickly take notes or instantly write down on paper ideas that come to their minds when preparing a thesis, a lecture, a book and so on.

➤ **Pre-requirements to start shorthand speed training.**

To begin the systematic shorthand speed training dictations, it is essential that the student has learned the entire system. This does not mean that you cannot train small dictations but, without the need of timing the speed, while learning the system. Small dictations with shorthand symbols that have already been studied and outlined at a slower pace, if performed with criteria, may represent an excellent teaching resource and may even help preparing to train for progressive dictations that the student begins to do after learning the entire system. This is exactly the systemology that I have elected in my

online shorthand course: dictations as of the first module that have showed very good results and students have approved.

The entire learning system consists in learning the basic shorthand symbols, the special shorthand signs (abbreviations and terminations), the connections between the signs, the rules of the system and the conventional signs. These conventional signs have a major role when it comes to speed, because they abbreviate words, expressions and even whole sentences.

Learning the system begins with moments of experience or familiarity with shorthand symbols, interspersed with moments of systematization and solidification, through exercises and tests. Quality exercises are those that are well dosed and in which the student observes compares, infers, understands and repeats. These are exercises that stimulate the assimilation of shorthand symbols and that properly build the foundations of learning the system. There are also playful and exciting exercises that generate pleasure and challenge as well as sharpen the student's interest while learning and still others that awaken, in the student, the desire to learn more and more.

The success in training progressive speed dictations – it is worth repeating - is closely linked to the full knowledge of the system! A deficit in this knowledge can generate a "knot" that significantly hinders the development in acquiring speed. This is why it is usual to advise the students that are beginning speed training and are still deficient as to the system, to recycle the lessons regarding the system while training dictations. This study strategy, which involves speed training and repetition of the lessons, has the objective of crystallizing the theoretical knowledge of the system, which, in turn, will reflect positively and effectively in the fluency of the dictations.

In short: the more the students repeat the lessons (re-enforcement activity!), the more they know the system and, the more they know the system, the better the performance becomes in speed dictations.

In the Final Report of a study published in 1969 in the United States on "Systems of Teaching Shorthand: Research Analysis", written by Joe M. Pullis, Polytechnic Institute of Ruston, Louisiana, we read the following conclusions:

From the findings of this study, there seemed to be strong indication that success in shorthand as measured by achievement in shorthand dictation was significantly related to one's ability to construct accurate shorthand outlines.

- 1. There was a significant positive relationship between the student's ability to write accurate shorthand outlines and his achievement in shorthand dictation.*
- 2. There was a significant positive relationship between the ability of the student to write accurate shorthand outlines and his ability to transcribe the outlines.*
- 3. There was a significant positive relationship between the ability of the student to transcribe isolated shorthand outlines and his achievement in shorthand dictation.*
- 4. Competency in transcription increased with competency in shorthand accuracy.*

Irvin H. Lesser believes that weak students in shorthand are those who have not mastered the theory of the shorthand system.

"Generally, the "weak students" in shorthand have never adequately learned the theory of the shorthand system so that they can automatize their responses. It is unfortunate that too many of the students' shorthand notes reveal that their knowledge of the theory of shorthand is far short of what it should be."

In agreeing, Arnold Condon states:

"The more complete the understanding of theory, the greater facility the student will bring to dictation, to improving shorthand outlines, and transcribing shorthand notes... Although memorization of rules is not suggested, there is some evidence to suggest that the study of the principles of shorthand theory should receive greater emphasis."

Acquiring speed in dictations. The highest speed at which a student is able to write an absolutely new three minute shorthand dictation and is able to transcribe it with no more than three percent of errors, is that student's shorthand speed potential.

NOTE: Those who wish to take a look at the entire research can find it on the Internet, under the title "Systems of Teaching Shorthand: Research Analysis".

➤ **The maturity (competence, capacity, amount of knowledge or skills) at each speed level.**

There is an imperative need to "mature" in each speed level! It is known that, while training dictations at a given speed, the brain starts creating new neurons relative to that particular speed. This is why it is necessary to train many dictations at each speed level. When training many 20 wpm dictations, the student gives the brain the necessary "time" for it to create neurons relative to the 20wpm speed. The same is true for each speed level the student advances to.

This is so true that the non-compliance of such period required for the brain to adapt to each speed level can represent a huge obstacle with regard to the student's progress.

The students that "burn phases" and train speeds greater than their brain capacity, exceeding what their skill, their conditioning and their motor coordination enables them to, end up losing many words in the

dictation, outlining shorthand symbols very poorly and generating enormous difficulty when they try to transcribe what they have written in shorthand.

In cases like this, where there is no real progress, the best strategy is to "go back a few steps in order to advance". This was exactly the case of a student doing the online course that I made available on my shorthand site, "taquigrafia.emfoco". In an email, this student told me that she was already training dictations at the speed of 90wpm. I requested her to send me a video where I could see her writing in shorthand for two minutes at the speed of 90wpm. When watching the video, I was able to notice that she was making many mistakes and many words were lost, representing a loss of more than a 10%. When she tried to speed-up, this was when she actually started writing scrawls and bigger signs than necessary.

I wrote back and suggested her to retrieve to the 50wpm dictations while reviewing the lessons related to the system, to better crystallize the rules... "strengthen the foundations" as I usually say. I also asked her to begin transcribing, systematically, all the shorthand dictations, typing them in Word and then checking the errors and the words that she had lost. And finally, I requested her to observe the 10% criteria regarding losses and errors before moving on to another dictation.

By accepting my suggestions, she started to write in shorthand with more assurance, had fewer errors and lost less words and her shorthand signs were more perfect and much smaller. Progress was inevitable!

➤ **The transition from one speed to another.**

To better understand this point related to the transition from one speed to another, we can illustrate with weights that are used for bodybuilding at gyms. Normally, people begin lifting 10 pounds. For several weeks, these 10 pounds will condition the arm muscles so that

they can later be able to lift 20 pounds. In this second phase, weeks are spent lifting 20 pounds. Only after the muscle is fully conditioned, strengthened and truly prepared is when 10 more pounds are added and this pattern is followed every time there is an increase in weights. We can say that the same thing happens with progressive shorthand speed dictations. Days and weeks need to be spent at a given speed to condition, strengthen, and acquire motor coordination in order to obtain full capacity at that speed. Only then will five more words be added for every minute of dictation without representing an overload to the brain.

➤ **The ideal time to be spent in training before jumping from one speed to another.**

But, after all, what would be the necessary training time to move from one speed level to another? The time varies from student to student. There are several factors that have a significant weight in this equation.

The main factor has to do with the knowledge of the system. A poor knowledge of the rules of the system will definitely generate a lot of doubts and hesitations when taking down a dictation. Doubts concerning shorthand symbols and joining characters together, poorly assimilated special initial and terminals signs and conventional signs that are not known, become deficiencies that hinder fluency at the time of writing in shorthand. Such hesitations, generated by the poor knowledge of the system, make the rapid transformation of sound into shorthand symbols difficult (a task performed by the brain in fractions of a second), cluttering not only the motor coordination but the fluency as well. Consequently, this causes loss of words or poor outlines and thus, makes it impossible to reproduce a full and perfect transcription.

Students that present such deficiencies will certainly take much longer training at any given speed. And it is good to emphasize that success will only occur if, along with the systematic training of

dictations, the students focus on strengthening the weaknesses mentioned above.

➤ **Dedicated, methodical, daily, and permanent training.**

Speed training should be done with full commitment and with utmost discipline. Each dictation has to be well "digested". All words and brief forms that are difficult to write should be very well studied. The student cannot and should not be in a hurry to jump from one speed to another. It is essential to "mature" at each speed level!

The amount of dictations needed to train each speed level must be taken into consideration, but the most important is *the quality of the training* of each dictation! To train a great number of dictations and not assimilate anything is time spent uselessly. On the other hand, "digesting" and deeply training each dictation, training not only words that are difficult to write but brief forms as well, represents an extraordinary gain with respect to shorthand speed.

There is also the fact that some dictations are more complex and therefore more difficult to write in shorthand than others. Such dictations contain a great number of words that are difficult to write and therefore represent real challenges. For these dictations, more time, more attention and more commitment has to be given to study. The great philosopher and theologian of Scholasticism, Thomas Aquinas, said: "Timeo hominem unius libri". (I fear the man of just one book.). The man who just read one book, but assimilated what he read, is an opponent to be feared.

Thomas Aquinas's comparison, "mutatis mutandis", can also be applied to training shorthand speed dictation. The student who trains well (and very well!) each dictation, in this case, is a student not to be feared, but to be admired and praised.

➤ **The greater the speed, the longer the training.**

As a rule, the greater the speed, the longer the training will take to overcome it. This is because the amount of sounds to be converted into graphic codes increases proportionally.

Let us make a comparison to better understand this point. In a 5-minute dictation of 20 words per minute, we give the brain a task of "transforming 100 words into shorthand symbols." In a 5-minute dictation of 120 words per minute, the brain has a great and complex task which is: "to transform with great speed, 600 words into shorthand symbols." The difference is brutal: 120 against 600!

It is easy to see that, every time words are added and every time there is an increase in the speed of the dictations, the brain has a greater amount of work to accomplish.

It is important to note that, the act of shorthand writing involves multitasks, not only in relation to "listening to the words, making the respective shorthand symbols in the brain and, through motor coordination, outlining them on paper", but also performing everything with "ease, speed and accuracy."

In regards to the increase in speed and corresponding increase in the time to overcome that speed as it continues to escalate, I tend to make the comparison with a unique ladder where, the more we climb, the higher and wider the steps become. Therefore, proportionally, more study time is required for each speed level that we wish to master.

➤ **Always train speed.**

The use of skills is a continuous improvement process that has no end.

It is necessary to always train speed in order to be a good stenographer. There is actually no point of arrival! To be able to use the shorthand skills well, it is absolutely imperative to follow a continuous improvement process that has no end.

The endless training of speed dictations, the daily drilling and the permanent enhancement of the art of shorthand all become essential conditions to achieve an excellent professional and personal performance.

The stenographer who daily trains speed is continuously improving and even surpassing every day, skills that have already been acquired. The motor coordination starts getting better, more accurate, more efficient and more refined!

Likewise, the stenographer who daily trains speed, improves concentration every day as well as the ability to hear sounds, transform them into signs and outline them fluently on paper. Every day, the stenographer becomes more proficient in overcoming the challenges shorthand writing offers.

Finally, we must emphasize that, along with speed training, there is also training related to reading what has been written in shorthand. As a result, the habit of reading what has been written in shorthand brings not only an improvement in comprehension but reading speed as well.

Thank you so very much for your kind attention.
