Touch Typing – It's Importance and Pedagogy

By Blaine Helwig

Every elementary classroom teacher will always use a computer keyboarding program to train their children to learn to touch type. ***Why?*** It is the most effective training tool, and I did the same as an elementary classroom teacher. However, in my fifth-grade classroom – all children (**ALL** STUDENTS) could touch type at speeds of 40 to 60 words a minute by the end of touch-typing digital keyboarding unit.

This level of student success took place in my classroom in year 2 of keyboarding instruction – **but not in my first year**. After my first year, about 60 percent of my students demonstrated the student learning objective of plus 40 words per minute proficiency of keyboarding success, and the other 40 percent of my students hunted and pecked out about 20 words per minute. I was dismayed by my classes' keyboarding results, but after talking to my colleagues, I learned they all had similar keyboarding outcomes as I did with their students.

This short writing will help teachers improve ALL their students' touch-typing/keyboarding skills, but it is ALSO intended to address the general issue of the annual continuance of poor math, writing, reading and science outcomes.

Due to these student results in touch-typing, I changed my instructional technique. ***Obviously, if I repeated year 1 pedagogy, I would always get year 1 outcomes.*** Consequently, with appropriate changes, in my second year of teaching keyboarding skills, not one of my students hunted-and-pecked on the keyboard – they all touch-typed. Moreover, I did not spend any more than a minimum amount of time on my students learning that important skill set. In fact, I expended roughly the same amount of time as I had in my first year of instruction and student practice.

*Why were **all** the students in my classroom so successful in mastering touch-typing skills in my second year?*

Let's circle back to that question because the answer has much deeper and more general ramifications to both student learning and classroom pedagogy than it does if only student keyboarding acumen was the primary concern.

So, let's establish the value of touch-typing keyboarding skills by examining the importance of that valued skill set at any age.

The Valuable Skill of Touch Typing – Its Importance Today and Historically

As educators, from the most basic premise of instruction, we teach a subject or specific content to students because it has value or perceived value. *In short, to allocate time and resources to specific content in our classrooms, a skill or skills must possess value.* In the case of providing keyboarding or touch-typing skills to students, this is indeed the case. ***Why?*** Computers have been ubiquitous in our schools, homes and offices for a little over three decades. We use them everywhere and for a significant part of our day in many varied applications. Historically, touch-typing was also deemed important before the advent of the modern-day personal computer or laptop. Before computers, we used mostly typewriters – a mechanical means to prepare and write letters or documents in type set.

On the day I graduated high school, my parents gifted me, as they did with all my siblings, a mechanical typewriter that was small and portable. Typewriters, as with computers of today, included the same QWERTY keyboard. However, in comparison to modern day computers, mechanical typewriters were of a simple design. On a typewriter, when any of the individual letter keys (i.e., a, b, c, d, etc.) were pressed down with a finger, it

resulted in the movement of a long, thin metal lever arm called a typebar that struck a ribbon, and that letter was printed on the paper.

Interestingly, on mechanical typewriters, the QWERY keyboard was intentionally designed so a human typist was limited by the number of words that could be typed at high speeds. The reason for this is simple - only one typebar could strike the ribbon at any given moment. If two typebars (i.e., two specific letters or two metal typebars on the keyboard) were struck too close in time, they would frequently jam together; consequently, typing speeds per minute needed to be slowed to prevent this mechanical jamming from occurring. Of course, this situation is not an issue for the modern personal computer, but the QWERTY keyboard we use today is nothing but a legacy of mechanical typewriters circa 1980 BC (**B**efore **C**omputers).

When I was in high school, my mother insisted that I take a typing class. At that time in my life, I was mystified why I needed to learn to touch-type. What was the point I thought? I typed on the old typewriter we had at home all the time by hunting and pecking keys until my paper or document was completed.

However, purely by accidental means, I discovered the answer to my question during my second stint at university about a decade after graduating high school. A friend and I were enrolled in the same undergraduate class, and we had to complete an essay on a specific topic. We both had written our first drafts on paper in pen and ink, and we went to the computer lab to type the assignment. The difference in our typing abilities and the importance of touch-typing became apparent to me immediately. I can type upward of 75 to 85 words per minute, but my friend typed using the same hunt and peck manner I did when I was 10 years old. I finished typing my essay, reviewed, corrected my mistakes, and printed my two-thousand-word essay in about thirty minutes. He was not a quarter finished typing the same length of essay. In fact, he was probably averaging 25 words per minute, maximum. Moreover, he was physically bent over the computer with his head down searching for each key, whereas I was able to maintain a much better sitting and back posture. Ureka! I now knew two of the paramount reasons my mother insisted I master the lifelong skill of touch-typing acumen – efficiency and posture. The saving in my personal time with sufficient keyboarding skills was more than apparent. While he typed for another hour, I started my homework for another class that I was enrolled in.

Basically, students need to learn touch-typing skills because they are more time efficient in their work. Period. The difference in one's typing ability translates into serious time savings – cumulative time savings. It is a valuable skill because it allows a person with good keyboarding skills to complete assignments and work more efficiently while maintaining good posture whether they are using a modern computer or sitting in front of a typewriter from 40 plus years ago. In general, the value of touch-typing as a mastered skill set has not changed since mechanical typewriters promulgated the world over – just as the general layout of the QWERTY keyboard has not.

Improving Student Outcomes – Via Analyzing Student Learning and Efficient/Effective Pedagogy

"The Learner Will (TLW) master touch typing at speeds between 40 and 60 words per minute." This core lesson objective is clearly written; thus, the classroom teacher knows precisely what skill or intent they want their students to learn (to mastery). At this point in all core lesson and unit design, student performance levels can be controlled and reduced to the big five in almost all situations of classroom pedagogy: *Presentation, Sequencing, Curricular Resources, Threshold Repetition and Accountability* (i.e., students' behavioral

expectations, as well as formative and summative assessments). It is important to note that learning to touch-type on a QWERTY keyboard, there are little to no prerequisite skills as there are in other elementary school intermediate grades with standard core content: mathematics, language arts, social studies and science.

Of course, the computer touch-typing program or app will guide students on learning the location of all the letters on the QWERTY keyboard. So, the teacher only needs to escort their students to the computer lab (or pass out the classroom set of computers), each student logs in with their assigned school password and accesses the tutorial typing program. Then, after the required number of tutorial sessions, ALL students will touch-type between 40 to 60 words per minute as stated in our student learning objective above.

Nope! Incorrect! It is highly likely that a significant percentage of students will **not** meet the performance outcome that follows the standard touch-typing digital tutorial pedagogy. I know this is true. ***Why?*** Because that is exactly what I did in the first year of teaching my fifth-grade students to touch type and only 60 percent of students accomplished the stated objective. Additionally, that is also what my 5th grade colleagues did as well with their students, and their results matched mine.

In my estimation, if the computer tutorial is used, between 40 to 70 percent of the students will master touch-typing above 40 words per minute by the end of their digital tutorial program. ***Why?*** Only the elementary students that can memorize the key locations on the keyboard achieve the desired typing speeds. The remainder of the students that do not memorize as quickly begin to 'hunt and peck' to varying degrees to find keys when timed, and their typing speed will average or plateau around 20 words per minute. Any classroom educator that has taught touch-typing multiple years with their students knows the above accounting is what empirically occurs year in and year out.

Wait! HOLD-ON! I was wrong. There is a prerequisite skill (after all) in keyboarding mastery at typing speeds above 40 words per minute. Students must know to automaticity the memorized location of the specific keys on the QWERTY keyboard as a background skill **prior** to using a computer tutorial program in order to prevent a significant mass of students from switching to the alternative hunt-peck method. Fortunately, like most human learning regardless of age, this task is relatively easy to do.

In summary, if an educator wants to achieve the learning objective on touch-typing of 40 to 60 words per minute for **all** students, their pedagogical approach must change accordingly. Equally important, the classroom teacher must be willing to expend the necessary effort and time to make it a reality.

Preventing an Issue(s) Before it Becomes a Problem

Memorizing the QWERTY keyboard is an extremely easy task to accomplish. There are myriad ways to accomplish this feat; however, I will relay the one that I used efficiently and effectively over the years when I was a fifth-grade teacher. One must remember, there are only about 45 keys to memorize and ten of those are the number keys at the top of the page. Truthfully, I did not bother with the special symbols above the number keys (e.g., exclamation mark, the @ symbol, the # sign, etc.). My overarching goal was for my students to type words and numbers quickly. If that task was accomplished, students possessed the desired typing speed to be both efficient and effective using a computer keyboard – a lifelong skill.

First, the teacher should get a full-scale paper copy of the QWERTY. Fortunately, these are easy to download off the internet. However, I have attached a usable keyboard diagram – downloadable – at the end of this (PDF) document on the **New 3Rs website** under the 'Expertise Resources' tab, so teachers do not need to

spend time searching for or creating one. I also recommend modeling the process for students – touch typing to demonstrate the paramount importance of knowing the key locations without intermittingly looking down at the keyboard to locate a specific letter key. So, I stood in front of my computer at my desk facing the classroom, and I would call on students to tell me something about themselves – anything they wanted (e.g., their name, specifics about their summer vacation, their hobby and why they enjoyed spending time on that activity, etc., etc.). It did not matter. I only needed information they knew, and I did not. Then, I would type whatever they mentioned verbatim while I looked directly at them – not glancing down one-time at the keyboard. After four or five students had provided the necessary information, I would call upon a student to come to my computer to read from the screen what I had typed while they had orally dictated their personal narratives to me. After the student was done reading, I stressed and clarified that while writing their information, I never once glanced at my keyboard. Likewise, ***if they practiced and played how they were taught,*** they would be able to type as I did over the next month. My goal, of course, was to demonstrate the skill level they were trying to achieve.

Second, prior to starting the computer tutorial program in the computer lab, the teacher must spend between 4 to 10 minutes a day in the regular classroom until all the main keys on the QWERTY keyboard have been covered, and their location memorized. Each student should have a paper keyboard in front of them on their desk, and they are all FACING the teacher. Or the teacher may elect to use a physical keyboard/laptop – if available, but I used a paper copy to minimize set-up time of the daily task. *Transition time is always a key consideration in any activity*. Continuing, do not make students mentally reverse their teacher's finger movements – the teacher must turnaround in the same direction as the students when demonstrating specific letter movements. It is recommended that each student keep a paper copy at their desks, so the teacher can maximize time on task. Also, the teacher should make extra paper copies if students lose their copy.

Note: The main objective is that students memorize the locations and the correct finger movements to those keys prior to starting the computerized keyboard tutorial program. Eliminate the need for students to 'hunt and peck' at the keyboard.

Third, the HOME ROW is the first memorization task. Children are shown where to place their left and right four fingers – and they memorize the phrase, 'home row.' The left hand fingers – from left to right – are resting on the 'a' , 's' , 'd' and 'f.' The right hand fingers are placed on the 'j' , 'k' , 'l' and ';'. Students begin by memorizing these 7 letters and the semi-colon. The teacher will call out each letter on the home row, **systematically** – beginning with the 'a.' It is recommended that this process be slow and consistent. There is not a need to hurry this process. Only memorize the first four letters with the left hand for the first couple days. Continue this process, until all 8 keys are memorized.

I would also teach this process via the 'air typing' without the keyboard. This technique requires students to raise both their hands in the air, and finger place the letter on an imaginary keyboard about at eye-level. Then, with hands in the air, the left hand's four fingers press the letter that the teacher calls out. This process is repeated until the 7 letters and the semi-colon representing the 'home row' are securely memorized by all students – with

proper finger placement. I recommend spending a week quickly reviewing these letters and quizzing students using the air typing process – closely watching which finger they move forward.

Note 1: During the 'air typing' process, the teacher is facing the same direction as the students, and the teacher's hands are also in the air pressing an 'imaginary' letter using the finger that is called out. When students have mastered the 'home row' letters, the teacher can do the air typing from the back of the classroom and visually observe if all the students have mastered the correct locations of the home row letters/semi-colon. This process assures the teacher ALL students have mastered the skill, and they are sufficiently prepared to move forward.

Note 2: A teacher can also utilize a classroom computer allotment at the students' desks in the following manner: Each student opens a blank word document on their computer, and as the teacher orally calls out a letter, students respond by typing ONLY that one key. It is paramount that the teacher realizes that students are not only memorizing the key locations on the QWERTY keyboard, but the finger movement as well for that specific key until the entire motion is memorized to automaticity. It is also recommended that the teacher only begins the computer tutorial program when all students can demonstrate that they know with automaticity all relevant key locations. Again, in doing so, children will avoid employing the hunt and peck method as a fallback since they possess the background knowledge of all specific discrete key locations and finger movements when they begin their tutorial program. The objective is to prepare the students for success with that tutorial program by knowing the precise location of the keys as well as the specific finger movement to automaticity – this is the difference maker – preparing students for success.

Fourth, I pressed students to memorize the specific Q-W-E-R-T-Y letter key locations on the keyboard – six more letters memorized. With the home row and the QWERTY letter key locations memorized, approximately 35 percent of the keyboard and finger positioning are already completed. It is also recommended to let your students know that the keyboard is called a QWERTY keyboard – emphasizing those series of letters on the keyboard. Students continue to practice the home row and the specific finger movements to correctly press the key until it is part of their mental keyboard toolbox.

Fifth, systematically continue with the remaining letters on the keyboard, each day, via the teacher orally calling out letters and air typing for a formative assessment for 5 to 7 minutes each day. Include the letters from the home row, QWERTY and any other key locations previously learned so all letters form their mental schema of the keyboard. After the main letters, punctuation and 10 number keys have been mastered to automaticity, practice capital letters via the 'Shift Key." I have always referred to this learning process as, *"Getting Rich Slowly!"*

Sixth, if a set of classroom computers was not used in the learning process with a blank word document to practice key locations and finger movements, it is highly advisable to spend two to four days in the computer lab or with a computer in front of each child and repeat the above process: Teacher calling out letters and students typing that specific letter with the appropriate finger. This step ensures they are familiar with the keyboard – even though many students have computers at home. However, in low-income schools, many students have not had similar access to computers as their more affluent peers. Again, this pedagogical system is a **controlled learning process,** so ALL students are successful learning to touch-type. When the computer tutorial program is employed, the teacher can simply monitor and ensure all students follow the tutorial – assisting any student(s), as needed. Praise students as they gain more speed as indicated by the increased number of words typed correctly per minute.

In summary, the preparatory work described above must be completed prior to beginning the computer tutorial program, or the classroom teacher can fully expect that a significant percentage of their students will NOT meet the lesson keyboarding objective of 40 to 60 words per minute. The teacher must prepare ALL students for success at this life-long skill – as they should with any core content. Now, let's return to that subject.

Final Thoughts

The first year I taught keyboarding skills, I did not use the above method. I only used the computer keyboarding tutorial as do most educators. Almost half my class that first year eventually employed the 'hunt and peck method' over touch-typing – a total failure on my teaching. With those results and conversations with my colleagues, I realized after that experience that there must be prerequisite work done before the computer tutorial is employed. ***Why?*** The answer that follows is one of the hardest parts of teaching children or adults. In reality, when there is a significant percentage of students that are unable to meet performance objectives, there are **not** a lot of candidates that can be assigned blame. Ninety percent of the time, it is the educator's fault. That first year I taught keyboarding skills with such poor student results – **that was on me – the educator. It was my fault that so many of my students did not learn the keyboard and the acceptable typing rate of 40 to 60 words per minute**. However, in the following years I taught students, I used the above prerequisite keyboarding method to prepare students for success and solved those issues. In general, if the skill is sufficiently important to provide instruction over a prolonged period, then it is sufficiently important for the educator to put in the effort and make **all** students successful at the task. When students are NOT learning grade-level content, what is the problem? The children are not incapable. It is not their fault! The children have not been prepared for success, or better yet, academically prepared as they needed to be to demonstrate expected or desired student outcomes.

Educators must design the learning process, so ALL students are prepared to achieve academic success!

Those students that 'Get-It - GET IT!' and the rest that do NOT are left academically behind is the most common pedagogical mode of failure in the public school system.

The process described above will rectify the touch-type/keyboarding issues for all students, and that was one of the primary points of this writing. However, as noted above, this situation more than accurately describes a larger and more general pedagogical issue. The computer keyboarding tutorial is a Tier 1 curricular resource – grade level. Moreover, with any Tier 1 instructional model and curricular resource, teachers and administrators must be evaluating their content mastery success with their students. If a high number of students – ***more than 5 to 10 percent are not successful*** (including students receiving special education services) – are not mastering the content after the instruction and associated student practice, then something is amiss on the educator's side of the table. **Again, it is not the children's fault; it is ours – the educators.** Of course, this process is and should be one of self-discovery of one's pedagogical craft; however, it is common for the mass of teachers and administrators I have observed in my career **NOT to self-correct**. They continue with the same processes that produces the same poor student outcomes in not only keyboarding, as depicted in this writing, but in all core content areas of mathematics, language arts, social studies and science. More importantly, all those core content areas can be academically fixed for any type of socioeconomic elementary or middle school just as was done with the keyboarding skills. The best part of this process is that it is **NOT** expensive, and stellar results can occur with one school year.

Classroom teachers and principals must evaluate the reason for poor performance and implement corrective action. When there is not a significant annual increase in student outcomes, it is time for self-educator reflection. The answer will invariably lie within the Tier 1 curricular programming and closing academic literacy and numeracy gaps – as well as the efficacy of pedagogy. This process has been accomplished repeatedly in urban, Title 1 elementary schools in the last two decades, but apparently, since incredibly poor

student outcomes continue every school year in the same schools, there is not sufficient reason or incentive to change unsuccessful and dogmatic practices. Upon visiting so many of these Title 1 elementary campuses with chronic student performance, I ponder, ***"Are campus and district administrators cognizant of the academic problem they are trying to solve? Can they expatiate in simple terms the specific reasons so many children are failing, so they may address the core issues?"***

Additionally, campus educators at all levels must be willing to put in the effort that elevates performance. If they do not know what to do or what problem they are trying to solve, it is time to find someone who does. That is easy as well, the processes are laid out in detail at the **New 3Rs education consulting**. It is all free! It is only doing what is required. If educators without student results do not rectify their unsuccessful practices, then it is painful for me to write the following, but it is an empirically valid statement: *Those educators are not doing the right thing for their students, parents and the taxpayers that fund the public school system.* **In short, they are bad for children's education.** There are solutions to all the academic problems in all public schools, including low-income ones. We – as educators, only need the courage to employ them and be willing to put in the necessary effort to sufficiently value high student performance to make it a reality.