

# **Touch typing education in different countries and its connection with court reporting.**

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## **ABSTRACT**

The accelerated digitalization process in the world has led to rapid changes and the need to improve the digital skills of people of all ages all over the world. Many countries struggle with huge difference between introducing of latest technologies in many work places, mainly in public service sector, and users ability of efficient usage of them. By efficient usage is understood efficient entering data through basic input device, which is keyboard. Even though there are many methods of fast data entry into the computer, touch typing is still the most successful and efficient way for entering data. Touch typing is important for pupils, students, workers at different jobs, but also for older people who use a computer for entertainment.

Systematically organized touch typing teaching in schools is the best way to learn touch typing because, besides accuracy, it is also possible to develop the speed that is most needed today when doing any work. The lack of knowledge about importance of touch typing in younger generation, who was raised surrounded by computers and digital technology, brings up a question about the reason of ignorance toward this important skill. This situation caused a need of conducting an international survey to find out and to compare position of touch typing education in particular countries. In the survey participated 10 countries – members of international Intersteno federation. The aim of this research was to analyse and compare touch typing methods in different countries and check are their results in competitions connected with the age that they started to learn typing or with the way of learning it. As it turns out, there is a causal link between the state of teaching touch typing in primary schools or high schools and performance in competitions involving speed and accuracy. Likewise, there is a difference between the performance in touch typing between pupils who had studied it in primary and secondary schools, and those who learned it after graduating from secondary school.

In next part we focus on Croatia, for which we look for relation between quite good educational system when it comes to touch typing and situation of court reporters. In this paper we describe employment conditions for court reporters and their job description. Croatian educational system on high school level gives the students an opportunity to receive all necessary skills to become a court reporter. It is quite sure that touch typing is not only a delusional skill, but a real tool that, combined with other administrative competencies, can be used in their future job, especially for court reporting. We discovered that even though the education is on such a good level, the courts struggle with lack of court reporters and must seek for other solutions. Conditions offered to court reporters are simply not attractive. People with such a skill may feel underestimated.

**Keywords:** touch typing, survey, court reporting

## **Introduction**

Rapid globalisation in the world has caused a massive development of information and communication technology (ICT) and it is the essence of nowadays life. Since everybody uses it, there is a huge need to prepare young people for everyday interaction with information and communication technology. Computers are everywhere around us and the main computer input device is a keyboard. Proper, healthy and efficient way of using a keyboard is an extremely important skill for most of members of the society.

By efficient usage of information and communication technology is understood efficient entering data through basic input device, which is keyboard. Even though there are many methods of fast data entry into the computer, touch typing is still the most successful and efficient way for entering data. Systematically organized touch typing education in schools is the best way to learn touch typing because, besides accuracy, it is also possible to develop the speed that is most needed today when doing any work.

Comparing touch typing learning methods in several countries gives the opportunity to see if there is a correlation between the age of learning touch typing and competition results. We will also take a closer look to relation between quite good educational system in Croatia when it comes to touch typing and court reporting situation in this country.

## **1. Touch typing**

Touch typing is the skill of typing without looking at the keyboard. Touch typing originates from the 1890s and is the technique taught in typing classes in school or in courses. By using muscle memory a person can remember the location of the keys. It involves placing the eight fingers on the home row of the keyboard (begins with ASDF). Each key is assigned to one finger. The typist moves fingers from the home row to the top and bottom rows for typing and then returns the position of the fingers to the home row for rest. Touch typists practice these movements to enter text without having to look at the keyboard. It is one of the most important skills for the appropriate usage of the computer.

Typists who touch type, place their hands in a fixed position on the keyboard and use this as a starting point for pressing particular keys by using all 10 fingers, without looking at the keyboard. According to Salthouse (1986), four processes play an important role when a person is typing a sentence. First the sentence must be remembered, put in the working memory, and then the sentence has to be chunked in characters, finally leading to the striking of the right letter at the keyboard. This is more difficult for less skilled typists than for skilled typists (Alves, Castro, & Olive, 2008).

Problems in the transfer from input to motorist actions might cause the differences in text production between skilled and less skilled typist (Christensen, 2004). Several experiments Rieger (2004) revealed, that skilled typist, when typing a letter, already prepare the next keystroke. Thus, a skilled touch typist has memorized the position of the keys on the keyboard, is aware of the position of the hands and fingers, has automated the motor actions of striking the keys, and without further thinking prepares the next keystroke.

### **1.1. Importance of touch typing**

The development of technology in the last two decades and rapid changes in the world have caused a constant need for the development of people's digital skills. Already from children in elementary schools is expected to have computer skills. In addition, the highest level of efficiency is expected at each workplace, including speed and accuracy in the work. Since almost every workplace includes computer work and data entry, touch typing is getting on its importance. There is so many benefits of touch typing that everyone should know how to type fast.

With knowing how to type without looking at keyboard with all ten fingers, you can type faster. Everything depends on practice but knowing how to touch type will have a direct effect on typing speed. Furthermore, it is a time saver. Increasing of typing speed makes person to save hours of typing time. This means that with touch typing a person increases its productivity – does more work in less time.

With touch typing people should make less errors which means that their work is correct. People can immediately, while typing, correct any mistake they make. This is very important in every job where you need to be 100% accurate. There is no room for errors in most of companies and jobs places.

By knowing how to touch type person have a clear state of mind. That means there is no need to look at the keyboard and whole concentration may be dedicated on the content, not on the writing process. Touch typing is an example of cognitive automaticity, the ability to do things without conscious attention or awareness. Automaticity takes a burden off our working memory, giving us more space for higher-order thinking. While typing without looking at the keys, people become multi-tasking. Human's brain is free to focus on ideas without having to waste mental resources trying to find, for example the quotation mark key.

People can write at the speed of thought. However, the home keys method is, as far as extant research goes, the fastest technique. And it is not going out on any limb to suggest, being able to type fast without looking at the keyboard is a 21<sup>st</sup> century basic skill.

## **1.2. Health Indications**

People spend more and more time in front of the computers. Sometimes beyond an eight-hour working time, people are still working on the computer after they come home. Improper usage of the computer leads to increasing health problems in people of all ages. When working on a computer, people need to follow several important guidelines that include proper sitting, good angle and position of hands on keyboard, monitor height and light level.

It is necessary to abide by ergonomics on the computer so that it does not have adverse health effects that can be reflected on the back problems but also on the carpal tunnel syndrome. That is why people need to learn how to properly sit while working on a computer and properly use the keyboard to avoid health issues. Touch typing requires that hands should be right at the top of the keyboard.

Comfort while typing plays an important role for the quality of workload done. If a person is a two-fingers typist, all the work is on the main finger which moves from one end of the keyboard to the other and gets tired quickly. With touch typing the work is spread equally on all ten fingers which means more work can be done without pain. Neck feels more comfortable now, when it no longer has to move from the screen to the keyboard and vice versa every few seconds. Arms are relaxed because the fingers rest on the home row. Ergonomics is really important and it involves a good posture as well.

Every typist has to make sure that he has good working conditions that will allow him to have a possibility of long-lasting typing on the computer. Working conditions include a working room, a work bench, a desk, a computer and a keyboard, as well as a proper sitting position. Every typist has to take care of his workplace conditions because improper work and computer sitting can, and often causes, many health problems.

Before any computer work, it is important to know how to sit properly. While typing, a person has to sit upright, hold arms close to body, and elbows should hardly touch the body. The feet must be lowered to the floor and it is not good to sit with crossed legs. The hands should not be lowered to the table while typing, as it interrupts circulation and it makes proper typing difficult.

## **2. Learning touch typing – comparative analysis**

Nowadays many countries struggles with huge difference between introducing of latest technologies in many work places, mainly in public service sector, and users ability of effective using them. By effective usage is understood effective entering data through basic input device, which is a keyboard. Computers are used everywhere (police station, courts, doctors office, post office, administration and so on), so are keyboards. Unfortunately, many people using computer at their work place are not familiar with health, ergonomic, effective and small-time-consuming way of digital text production.

Since it is an understandable situation among older generation of people, who became professionals in their field before global process of computerisation, the lack of knowledge about importance of touch typing in younger generation, who were raised surrounded by computers and digital technology, brings up a question about the reason of ignorance toward this important skill. This situation caused a need of conducting an international survey to find out and to compare state of touch typing education in particular

countries. During the Intersteno Council Meeting in Zagreb (2016), 16 participated delegates were asked to fulfil a short survey on touch typing teaching in their countries. The results are shown below.

### **2.1. Primary schools - chosen countries**

One of the questions in the survey was: Is learning touch-typing under expert supervision already part of the curriculum in primary schools? To survey responded 10 participants and the answers were not much promising. Below are presented chosen answers:

Hungary: In Hungary, touch typing unfortunately is not obligatory to teach in primary school.

Germany: In “das Realschule” or “das Gymnasium” (second part of primary school) touch typing is taught as a part of general “IT” subject 10 hours with test at the end. The conditions in classes varies from school to school, but in general, after 10 hours children achieve approximately speed of 120 strokes per minute with less than 0,5% of mistakes.

Great Britain: No, it is not obligatory skill to learn in primary schools. It is possible to learn it as a facultative subject, but it means some children learn, some of them – do not.

Belgium (Flanders) - Unfortunately this is not foreseen in the curricula and teachers in primary school are not prepared for teaching touch-typing. Moreover there is no interest from the Flemish government to introduce touch typing in primary schools.

Belgium (Wallonia) – it only may be taught as a part of ICT subject in primary schools so it is not obligatory and there is no final test for this skill.

The Netherlands – No, that is certainly not a general part of the curriculum. Only a few schools have fully integrated this. There are teachers who let attend their children an online typing course, but is that a matter of expert supervision then? Headmasters and teachers are too busy with other matters and they don’t see well the importance of it.

Poland - there is no such thing like learning touch typing in schools. The curriculum says only about informing pupils about the way, how a proper touch typing looks like.

Croatia - In Croatia, touch-typing under expert supervision is not part of the curriculum in primary schools.

From 8 different education systems, the best answers came from Germany, where pupils learn touch typing for 10 hours in primary school. All the other countries do not have obligatory touch typing education in their curriculum.

Only in Great Britain and the Netherlands it is a facultative skill which may be taught, depending on parental decision (Great Britain) or headmasters decision (the Netherlands).

In all the other countries children have no legal obligation whatsoever to learn how to properly use a computer keyboard. Where there is no need, there is also no interest or even an information about the importance of the case. After all, in people's minds there is an idea that all the important things and skills, children already learn in the school. The education programs are often overloaded and neither pupils, neither their parents do not have even time to think about learning an additional skills like computer typing. Even if they would, they do not know who to ask about possibilities and places where and how they could start to learn touch typing.

## **2.2. After primary school**

Not considering the education systems, computer typing is an important skill and many people know it. It definitely is a skill that on a job market makes a potential candidate more competitive. The private sector does not sleep and there are many online programs for learning and testing the speed and accuracy. Also, there might be high schools having touch-typing as a part of educational program for particular class profiles. This was the reason to ask another question in our survey: If touch-typing under expert supervision is not part of the curriculum in primary schools, what kind of other opportunities young people have to learn touch typing under supervision (private associations, in secondary school...). Below presented answers from several countries taking part in the survey:

Hungary: If the students cannot learn the typewriting in elementary school, then it would be almost indispensable in the technical school / secondary school / high school! Or maybe - yes - in private school / courses, but it is important that there is a teacher, who can teach this! One can - of course - also learn self-taught, but it may not be so "good" solution in terms of typing, because without a teacher, it may be a bit difficult to keep motivation.

Great Britain: There are internet programs to teach touch-typing, some of them free.

Belgium: There are some private, commercial courses in touch typing where several methods are used. Some of them are good, others only commercial. In the secondary schools only in the commercial schools (Handelsschule) learning touch typing is in the curriculum, but the foreseen hours are not enough anymore to have good results. And students are not acquainted to exercise at home anymore. Within last few years there is more interest to bring in computational thinking and programming in the education, starting from child garden, primary schools to secondary schools, organized in the form of projects/workshops and situated within the international STEM-education

(Science/Technology/Engineering/Mathematics) as you might know. A lot of schools are experimenting with a lot of technics / methods like Arduino, Lego Mindstorms, Scratch and much more. The focus on the more 'administrative software' is not hot at the moment...

The Netherlands: At this time it is fine by schools (they approve) that private providers advertise in schools (or the schoolyard), on secondary education also no systematic attention. Many parents choose privately an online typing course. Many schools allow institutes to organize a school course, but more with the idea of: 'then we have given the possibility' than that they understand its importance.

Poland: In Poland young people can learn touch typing on private courses (but there are very few of them, it is not a common thing), in schools (even elementary), if the teacher spends his free time for that, in technical high schools with a profile Office Technician and of course – computer programs, where we cannot talk about expert supervision, and most of them are methodically incorrect anyway.

Croatia: In Croatia young people can learn touch typing in high school such as Administrative school with profiles "Junior administrative clerk" (3 years: 4 <hours weekly> – 2 – 2) and "Administrative secretary" (4 years: 4 – 3 – 3 – 3). Touch typing is also taught in high schools with economical and touristic profiles (1 year). There are some private courses, but very few of them. There are no on-line courses.

The answers lead to a little bit cheering conclusion, which can be divided in two parts:

### **2.1.1. Education in high schools**

In part of human education, where student is already more oriented into their professional future, particular schools in some countries offer a touch typing courses. The level and course intensity often depends on the class profile chosen by a student. There are of course countries, like the Netherlands, where high schools, no matter the profile, do not provide such a subject limiting the service to allowing private schools for advertising themselves, but most of the answers talk about shorter or longer touch typing courses for particular class profiles. Especially when it comes to commercial schools, economic technical school, administration high schools (name depending on the country) the possibilities are bigger.

In Poland it depends on the teacher, whether he wants to dedicate some hours during workshops for computer typing or not, but the teacher at least has some space to do it. In high schools with such profiles it seems, that the most comfortable situation is in Croatia. If students in class profile Junior administrative clerk receive 3 years long course under qualified teacher's supervision, or even better – Administrative secretaries – 4 year long course, it gives them a solid skill which they can use in their CVs while looking for a job and actually be competitive on the job market. It is quite sure it is not only delusional skill, but a real tool they will use combined with other administrative competencies in their future job. Additionally there are no doubts it is a system letting students discover their talent, if they have one. Then, in the future they may want to become court reporters or work in another profession where fast and accurate typing is a crucial skill.

### **2.1.2. On-line courses and computer programs**

For students who because of the educational system in their country or because of type of chosen school, never had an opportunity to learn touch typing under expert's supervision there is only one solution left: On-line courses or computer programs. Since in on-line courses there is no real supervision, there is no significant difference between them and computer programs. There is a huge choice between many various programs. Some of them from didactical point of view lead a student in pretty easy, but efficiently poor way.

Learning new letters on keyboard comes very fast and student gets an impression of rapid progress, but it is only an illusion and after finishing the course a student may not be

able to type on a keyboard with 10 fingers, without looking at the keyboard, using particular finger for pushing the proper, “belonging” to this finger key. On the other hand there are programs designed for independent learning at home. These programs demands more motivation and discipline from student.

Some of them from pedagogical point of view are perfectly designed. They teach new key in order from the most common in particular language to ones used less frequently, avoiding in such a way creating so called “mirror mistakes” (stroking letter “e” instead of “i”, “u” instead of “r” etc.) From the very beginning they may guide, just like a teacher, through ergonomic posture, way of sitting on the chair, position of hands above the keyboard and so on. At the end it is desirable not to start learning a new letter, until the student is actually ready for it and the program actually prevents such a situation. To sum up, there are commercial programs which can replace a teacher supervision, but it requires huge motivation and discipline from a learning person.

### **3. Methods of touch typing learning in Croatia**

#### **3.1. School**

Touch typing is not taught in elementary schools in Croatia. Although informatics has gained importance over the last few years, it is still not considered that touch typing should be taught already in elementary school. Touch typing is a subject in high school, however not in every high school. Touch typing is a very important subject in the Administrative Schools. It offers a four year long course in frames of Junior administrative clerk and Administrative secretary programs.

Administrative secretary acquire knowledge as well as other various skills, such as typing, IT skills, administrative writing, communication and organization skills, etc. Junior administrative clerk acquire knowledge and various skills such as typing and IT skills, but also knowledge of administrative regulations, to be able to understand and take part in some administrative procedures. They learn a lot about court reporters and how to do that job. A lot of students after school continue education at university, but others become court reporters or administrative clerks.

In such a school “Touch typing” is a special subject. Junior Administrative Clerk learns touch typing for three years (first year 4 hours per week, second and third year for two

hours per week). Administrative Secretary learns touch typing for four years (first year 4 hours per week, and the other three years 3 hours per week).

Curriculum of touch typing subject is similar in these two profiles. First year of learning touch typing refers only to knowledge related to touch typing which includes positions of fingers on the keyboard and functions of different keys. Students need to learn how to touch type without looking at the keyboard and to be precise and make few as possible mistakes. In following years of studying they practice speed and accuracy. It is important to be as accurate as possible, but also to produce as many characters per minute as possible. They learn how to retype the text but also to write text from dictation or to make a transcript from an audio record.

Curriculum for Junior administrative clerks also includes how to write business letter, verdict, court decision and all other court documents. After school, they can immediately start working as a court reporter or administrative clerk, thanks to all the knowledge and skills they have gained in school. Administrative secretary learns everything like Junior Administrative Clerk but everything is more focused on how to work in a company and how to run a business.

Touch typing also exists as a subject in economic schools and in a commercial and tourist school where it is taught together with business communication. They learn touch typing only one year and they learn basics of touch typing without a lot of practice of speed and accuracy.

Touch typing is learned from books that were wrote 2009. - 2010. These books are for learning in first and second grade. There are no books for third and fourth grade. Teachers make their own materials for teaching. Teachers teaching this subject need to have a master degree in human science, know how to touch type and have an ECDL diploma confirming their high level skills in MS Office software.

### **3.2. Courses**

Touch typing can in Croatia also be learned at some touch typing courses, but usually there are dedicated for adults. There is no big interest for touch typing courses. Companies and associations that provide touch typing lessons have couple of courses per year. In Croatia there is a Croatian Stenographic Association that aims to promote typing, stenography and

information technology. Courses are held since 2012. One such course lasts 50 hours and it also offers basics of informatics skills.

Online lessons of touch typing in Croatia are not so popular. Not many people even know what touch typing is and they do not think it is something important or crucial for the usage of computer. Even though touch typing is not learnt in every school, Croatia has a big team of touch typist that participate in touch typing competitions on state level and international level.

#### **4. Court reporting**

Court reporters perform administrative duties in the criminal and civil justice systems, assisting other officers of the court as well as judges and lawyers. They might work in any type of court. Their job is to maintain court records, make a transcript of decisions and authenticate copies of the court's orders and judgments.

A court reporter in the court writes from dictation of a judge or a court counsellor, makes a transcript, compares the transcript with the original and corrects the errors, makes simple statements, makes court invitations on prescribed forms, makes a copy of court decisions and other court documents, invites parties to hearings, carries out written disputes in all kinds of cases, performs compulsory collection and refund of taxes, inserts data into computer databases, writes warnings and orders, writes envelopes and carries out reconstruction of the dispatch of letters and performs other appropriate tasks at the order of a judge, court counsellor and court clerk.

Information about court reporter vacancy job must be officially published. Professional requirements are a secondary administrative, economical or graphic school. The candidates should have at least one year of work experience in related job. After getting the job they have to pass a state exam. Testing candidates consists of basic knowledge verification of Constitution of the Republic of Croatia, tests of knowledge relevant to the particular workplace for which a written test is taken, checking the ability and skill of writing text on a computer in the form of dictation.

The typing requirements are on a very low level, because there are very few candidates for a job like this. Unfortunately court reporters salary is way below the national average. It stays on a level of about 63% of average salary. Hence, it is hard to find a person

willing to do this job. In Croatia there are no stenographers, neither steno machines in use at all.

Since 2018 Croatia started a pilot project of implementation voice to text devices. Right now it is in a testing faze to see if they are efficient enough for Slavic language, such as Croatian. This could mean that the court reporters will be redirected to do other jobs while the devices do theirs. Not all courts are satisfied with this device, but it is difficult for anyone to predict what brings the future.

## Conclusion

In nowadays modern technology world the main computer input device, regardless many attempts, inventions and upgrades, remains a keyboard. Everywhere where computers are, there is also a keyboard, and computers are everywhere around us. Many work places are strictly related with computers. Hence, proper, healthy and efficient way of using a keyboard seems to be extremely important skill for most members of society. The best time to start learning touch typing is, according to different researches, between 7<sup>th</sup> and 10<sup>th</sup> year of life, i.e. in elementary school. From the same reason why children learn how to hold a pen, they should learn how to properly use a computer keyboard.

Unfortunately these two facts do not go in parallel in real world. In some countries there are more primary schools where children learn touch typing, in some less or none, but among countries taking part in the survey, there is none having touch typing as a part of the curriculum in primary schools. Situation rapidly changes after when children choose their path of career and go to secondary school, particularly with administrative, economical or similar profile. Considering touch typing education in these kinds of schools, the country with one of the best system is Croatia. Students there within their education process receive a full set of practical tools regarding not only touch typing, but in general, text processing. This could, but unfortunately do not, affect number of highly skilled court reporters in this country. The reason is very simple: Court reporters are way underpaid and their skills are obviously underestimated.

The conclusion comes by itself: Educational process satisfying needs of a job market have to go parallel with satisfying workers economical needs. Otherwise, employers must seek for other solutions, like innovations, which are not guarantee of success.

## References

Alves, R., Castro, S., & Olive, T. (2008). Execution and pauses in writing narratives: Processing time, cognitive effort and typing skill. *International Journal of Psychology* 43(6), 969-979.

Christensen C. (2004). Relationship between orthographic-motor integration and computer use for the production of creative and well-structured written text. *British Journal of Educational Psychology*, 74(4), 551-564.

Rieger, A. (2004) Automatic keypress activation in skilled typing. *Journal of Experimental Psychology* 30(3), 555-565: