

Chess in School

a smart move



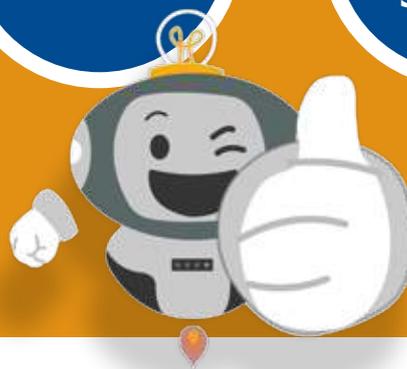
**HIGHER
ORDER
THINKING**

**GROWTH
MINDSET**

**EXECUTIVE
FUNCTIONS**

**21ST
CENTURY
SKILLS**

Offer Children
the Benefits of Chess



Source: University of Alabama, January 2019



EUROPEAN PARLIAMENT: TEACH ALL CHILDREN CHESS AT SCHOOL

Why Chess in School?

More and more schools embrace chess as an amazingly valuable educational tool. Chess is no longer regarded as an activity that is only suitable for gifted children: **all children benefit from learning chess.**

Chess teaches the skills that prepare them for the challenges ahead. That is why in many countries chess is a compulsory part of the curriculum.

Chess offers all the advantages of learning through play. Children like the game of chess and practice their ability to concentrate in a playful way. They learn to deal with setbacks and losses and experience how important it is to think before you act: an important life skill!

The educational benefits of chess are numerous and varied and are confirmed time and again by scientific research. Children who learn to play chess in school get higher marks, participate more actively in class, pay more attention at school and have better creative and critical thinking skills.

And that's not all. Chess in school is an ideal way to work across classes and grades at a pleasant school culture. The game teaches children to put themselves in someone else's shoes and to see the consequences of their own behaviour.

Chess is a party where everyone is welcome. Differences in age, gender and background are bridged in an activity that everyone enjoys.

Developing 21st-Century Skills with Chess

Playfully building the skills of the future, that is what chess provides. In its specific character, the game houses a large number of 21st-century skills. Acquiring the skills necessary to play chess spills over to learning in other areas.

To play chess, you have to be able to focus attention, think ahead, visualize actions and apply knowledge in new situations. Chess teaches kids to tackle issues in a structured way and to reason solutions logically. Computational thinking and data-driven decision making are essential skills for chess players.

Chess allows children to practice analysis, planning and execution in a playful manner. An unexpected move by the opponent? Then you have to be creative and flexible and adapt your plans.

Chessity's digital teaching material has been developed in such a way that the students train a wide range of 21st-century skills. Chessity fits within STEM education.



The Future of Chess Education

Chessity is the first smart digital method with a complete, personalized curriculum for learning chess. The platform combines digital intelligence with didactic quality to make learning chess an enjoyable experience.

Chessity is very easy to use, whether you have experience and affinity with chess or not. Right from the beginning, the students start working independently. Teaching chess hardly takes you any time.

More Than 1,750 Schools

More than 1,750 schools and over 75,000 of pupils already use Chessity.



Chess and Children's Brains: a Golden Combination

Chess is very **beneficial for the development of children's brains**.

A child's brain that is challenged with chess grows:

- new blood vessels
- new neurons (nerve cells)
- more synapses (connections)

Children who learn to play chess will benefit from this throughout their lives. Because their brains become more complex, they can solve problems faster and are more creative. Besides, the extra synapses form a reserve for later in life: thinking sports such as chess can delay the onset of Alzheimer's disease, for example, for four years.

Many **neuroscientists are fervent advocates of school chess.** Dutch Professor of Neuropsychology Erik Scherder is one of them:

"Chess adds something that is not provided by mathematics and language. Give chess a parallel place in the curriculum on its own merits. **The characteristics of chess present the challenge.**"



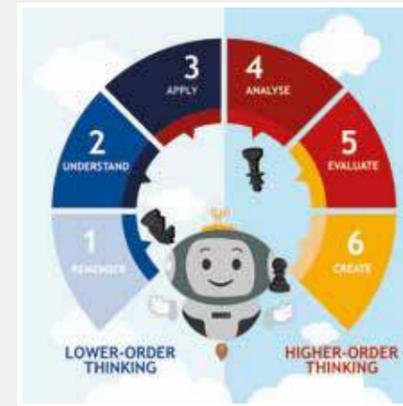
Chess Education at Every School

In the past, chess in school was only possible for a chess-savvy teacher or with the help of a well-meaning volunteer.

Now there is Chessity.

The complete chess platform that combines artificial intelligence with didactic quality and adaptivity.

Chessity makes chess education easy and fun. For every school, for every teacher and for every child.



HIGHER-ORDER THINKING SKILLS

Bloom's Taxonomy classifies thinking according to six cognitive levels of complexity. The lower-order thinking skills and processes are 'remembering', 'understanding', and 'applying'. The higher-order thinking skills and processes are 'analyzing', 'evaluating', and 'creating'.

A rich learning activity addresses multiple thinking levels. **Chess involves all six levels** and is, therefore, an excellent tool for the playful development of higher-order thinking.

I can learn anything I want. Mistakes are okay. I learn from them. When I've mastered something, I celebrate my efforts and feel proud.

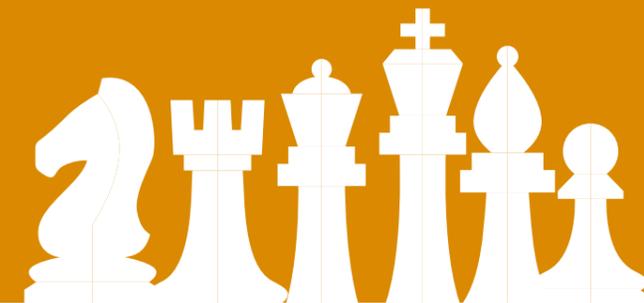


Chess is a fantastic and fun way for children to strengthen their **executive functions**. Executive functions are a significant determinant of school success and are indispensable in adulthood to function well in society.



"It is just like going to the gym. The more you practice executive functions, the stronger they become. Because you are strengthening the neuro connections in your brain."

Philip A. Fischer, Oregon Social Learning Center (University of Oregon)



‘Chess is Simply a Part of Our School’



At elementary school De Valkenheuvel in Driebergen (The Netherlands) all children from age 6 up learn how to play chess with Chessity. “We think chess is invaluable and we consider Chessity to be an enormous advantage for our students”, says teacher Francisca Reimert. “Children learn the skills they need in life.”

Chess? Francisca herself hardly knows how a pawn moves. Nevertheless, the teacher is the primary force behind the chess lessons that all children from age 6 up get at the Dutch Dalton school. It all started with a colleague who, together with her students, started working with Chessity. “When I became familiar with the program and saw how the children learned with it, I thought: this platform has so much to offer, we ought to use it more widely: all the children should work with it.”

TUESDAY, CHESS DAY

Since that moment, Tuesday has become the regular chess day at Valkenheuvel School. On this day all the children have to study chess with Chessity. On other days, Chessity is optional. If the children have finished their regular assignments, they

can choose to work with Chessity. “One child may only practice chess two or three times a week, or have other interests”, Francisca says, “another may play chess up to ten times a week.

The kids love the program. They don’t regard it as learning but think of it as playing. At the same time, they also understand what they are learning from the program in a much broader sense. They build up skills like creative thinking, solution-oriented thinking and the ability to see things from another’s perspective. This gives the children so much extra. The beautiful thing is that they experience this for themselves.”

LOCAL SCHOOL WITH MUCH DIVERSITY

Valkenheuvel School was originally a local Catholic school. While local children still attend it, the school is now a Dalton school that also attracts children who live further away, whose parents very deliberately choose this school. “Many second and third generation children of Moroccan and Turkish descent attend our school, but at the same time highly educated expats and parents of gifted children enroll their kids at Valkenheuvel School.” Add to this the fact that the school has been receiving refugee children in language immersion classes for four years and it is clear that the 110 students form a diverse school population.

Francisca enjoys that diversity to the fullest. “Our school is really at the heart of the community. This is extremely valuable, for the teaching staff and for the children. Of course, it is quite a challenge to get everything well organized. But when I see a boy who has only lived in the Netherlands for three years and who comes fourth in the Dutch National



School Chess Championship, I think ‘yes, wow!’. Okay, maybe he doesn’t always have a perfect command of the language, but he’ll get there. He’ll manage. I am genuinely very proud of that.

With the same pride, she talks about the other 5th-grade students (ages 8 and 9 in the Dutch educational system), who reached the finals of the National School Chess Championship. “They only started playing chess last year, and this year they were already in the national final. I find that so special!”

MORE THAN CHESS

Valkenheuvel School deliberately has chess as a mandatory school subject. **“Chess has a lot to offer for children. It teaches them the skills they will need later in life.”**

The school’s decision to use Chessity was a very deliberate choice. Francisca recommends the method to all schools. “I can’t think of a single reason why a school shouldn’t start with Chessity. The platform provides so much more than just chess. Chessity is a great tool to use for learning digital skills, creative thinking and solution-oriented work. That is an enormous added value. We also like the very playful way in which the children learn how to play chess.

However, schools are different, and teachers are different - are there genuinely no circumstances in which



Chessity is less suitable? Francisca lets the question sink in for a moment. Then, after a short silence: “No, I’m sorry, I really can’t imagine why a school wouldn’t want to use it. Yeah, I know, I’m very enthusiastic about the program.”

Francisca teaches grade 8, which in Holland is the final year of primary school. Every day she notices how working with Chessity helps the children in their development. **“In the higher grades, we invest a lot of time in teaching how ‘learning’ works, to prepare the children for secondary education. This learning goal is also a feature of Chessity.** The program gives the children a valuable insight into how they learn. They reflect on that in their reactions and stories. That’s why I think Chessity is a great educational tool to use for this purpose.”

NO DIGITAL FRONT RUNNER

Although Chessity is at the leading edge of developing innovative digital educational technology, Valkenheuvel School is not a digital front runner. “Our school has only cautiously started with the transition to digital learning”, says Francisca, herself a great advocate



Enjoy the Power of Artificial Intelligence

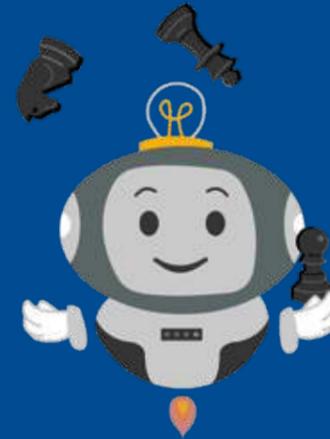
As a teacher, you want to give your students as much as possible. Chess, yes that would be great, but how? There is so much to teach and so little time. And you might not even play chess yourself... Sounds familiar?

May we introduce you to **Chessto, the smart little robot full of artificial intelligence**. Thanks to this innovative technology, you can effortlessly teach chess without it taking you extra time.

This is what Chessto takes care of (and what you don't have to do):

- > personalised, spoken instruction
- > direct elaborative feedback tailored to each's needs
- > enrichment and remediation during learning
- > assigning personal tasks ('missions') to students every week
- > just-in-time examination
- > error analysis and adaptive practice material after a failed exam
- > live coaching of the student during a game of chess
- > daily online chess tournaments

**This is Chessto,
the cute chess teaching robot**



Chessto is the talking robot in Chessity. He is crammed with artificial intelligence and helps every student to learn chess with tailor-made instructions and tuition.

“As a teacher, you can relax. Trust Chessto to tutor your students”



← of digital learning solutions. “This has partly to do with the average age of our teaching staff. For some of my colleagues, the transition to digital education was quite a step.”



Up until last school year the Valkenheuvel School had only twelve computers and five iPads for all students. Partly thanks to the good experiences with Chessity, the school is now rapidly shifting to digital. Not because digitalization is a goal in itself, but because the teaching staff realize that it is an excellent tool to achieve a goal. The school purchased fifty Chromebooks and twenty iPads, and the teachers made the switch to digital teaching methods for several other subjects as well. “As adults, we may still be able to do without them,” says Francisca, “but **for children good digital skills are essential.**”

OLDER CHILDREN TEACH YOUNGER CHILDREN

Not only does Valkenheuvel School successfully teach chess without the help of a specialized teacher, but even the regular teachers don't always have to roll up their sleeves during the chess lessons. The children in the highest grades teach the lower grade pupils. They make them familiar with Chessity and help them with questions or problems. This way of working fits in perfectly with Dalton education, in which cooperation is a key concept.

“We have made a very conscious choice for this approach”, says Francisca, who is not only a teacher but also the Dalton coordinator at Valkenheuvel School. “The children learn how to tutor and coach others. Of course, kids can't do that from one day to the next. We have guided the children in this process. Now they know, for example, that they must not tell the right answer, but should let the younger children think for themselves.”

An nice side effect of school-wide chess is that it has brought unity to the Valkenheuvel School. All children, from the very young ones to the highest grades, know each other well. “When one of the older students enters the lower grades, you often hear an enthusiastic ‘hey, you are my chess tutor!’”

PARENTS FEEL POSITIVE ABOUT CHESS

In general, the parents are very enthusiastic about the school offering chess. Occasionally, a parent wonders whether chess is essential. “Then we are very firm: yes, it is. Chess is part of this school. Teaching our students how to play chess is a deliberate choice because we think it is imparative.”

Chess has become a way of life at Valkenheuvel School. Scattered all over the school there are chess boards.

Recently, the school held a school-wide chess tournament in which all children participated. At a school fair last year, it felt obvious for the children to set up chess boards and let themselves be challenged. “Fathers and grandfathers were coming in, radiating ‘let's beat these young ones’”, Francisca laughs. “And you know what? Not one adult was able to win a chess game against a child! Can you imagine what an impression that made?”

Valkenheuvel School has offered to be a pilot school. Chessity tests new software at the school, measures all student results and improves the software accordingly. Also, the children regularly help find bugs - good for their digital skills!

The Fun Way to Teach & Learn Chess



If you are looking for a chess method, you want the best. Chessity builds on the evidence that smart digitalization is the most powerful tool to help children learn and to relieve teachers of their workload. It may seem a bit scary, but you will discover how easy educational technology makes it to confidently teach a subject that you may not even have mastered yourself. Without much time or effort.

And perhaps the most important thing: Chessity lets you experience how exciting it can be to discover and learn something new. Chess becomes an educational adventure for everyone - for students and teacher!

Chessity is not a digital version of a paper method but is fully developed from a digital DNA. Not only is Chessity adaptive and does it make use of game-based learning, but it also has specially designed, advanced artificial intelligence. This leading-edge artificial intelligence makes Chessity one of the

most innovative teaching methods in the world, both in the field of chess education and in general.

INDEPENDENT LEARNING WITH CHESSTO

Chessity is designed in such a way that children can autonomously learn how to play chess. Learning is playful, in an attractive child-friendly online learning environment, full of challenging mini-games. The Chessto robot, a virtual chess teacher, helps the children to master chess themes. Chessto delivers personalized instruction, helps when a child is struggling and motivates to persevere.

Learning with Chessto strengthens the metacognitive skills of children. It has the long-term effect that children become less dependent on a teacher and learn better.

Chessto not only helps with learning and practising new themes, but he also teaches the children how to decide on the

best moves in a real game of chess. While a child plays a chess game, Chessto coaches in real time with tips and advice based on both the learner's personal level of chess and user data about learning flows. This technology has been developed by Chessity and is not available in any other teaching method.

ENGAGED AND MOTIVATED CHILDREN

Children learn the most when they are engaged and motivated to learn. Chessity lets children experience the pleasure of learning. They direct their own learning process and can learn

both linearly and non-linearly. The platform uses gamification and game-based learning. This makes practicing fun and inspires kids to do more work. As a result, the learning process is more intensive and effective.

FOR AGE 5 UP

Chessity offers a **complete chess curriculum for age 5 up.** It fits any school system and all educational concepts, such as cross-classroom shared learning projects and peer tutoring, and can be used independently as an enrichment program.



READY-TO-USE, HASSLE-FREE CURRICULUM

Start your chess lessons immediately without preparation. You don't have to know chess to empower your students in learning. The intuitive software enables children to start building their chess skills step-by-step, taking them from beginner to an advanced school chess level. Chessity comes with over 250 interactive chess lessons (including Chessto's adaptive spoken instructions), video tutorials, training materials, and educational games.



LEARNING BY DOING

Learning to play chess with Chessity is all about learning by doing. This makes Chessity very suitable for children with weak language or reading skills. All texts use simple language, ideal for early and intermediate readers. The spoken texts also match the language proficiency levels of elementary school children.



CHESS IS A GAME AND SO IS LEARNING

Learning has never been so much fun! Gamification is the secret ingredient that makes children eager to explore the world of chess. Learning through games is very engaging and boosts motivation. In the use of game-based learning and gamification, Chessity connects to the digital environment in which today's children grow up. Plus, it is super effective.



ACHIEVABLE LEARNING STEPS: I CAN DO IT!

Personalized learning empowers children to develop a growth mindset. Chessity stimulates students to make achievable learning steps. To this end, it uses technology-enhanced learning and artificial intelligence. Each learner receives precisely the instructions and the help he/she needs, with direct, elaborative feedback and easy-to-understand explanations. Children experience that effort and commitment lead to success.



NO-ONE FALLS BEHIND

All children can keep up. Since all students follow a personalized learning path, in which they independently acquire new skills, it takes no effort to plan chess lessons that include all children. Individual differentiation is automatic: the program analyzes the learning behaviour and adjusts the level of difficulty to the student's learning level.



IS IT TIME FOR A DIPLOMA CELEBRATION YET?

The dashboard provides a detailed overview of the individual level and progress of each student. It shows which children have mastered new skills and what lessons they have completed. The dashboard gives you insights into the growth of both individual children as well as the whole class. Is it time for a diploma celebration yet?

Personal Learning Paths



Follow Your Progress



“

From the moment I started working with Chessity in schools, the students were very enthusiastic. The children get direct feedback and from the dashboard I can see exactly what the students need to grow.

Regobert Eijkelkamp, teacher

100% Adaptive
All children practise at their own level

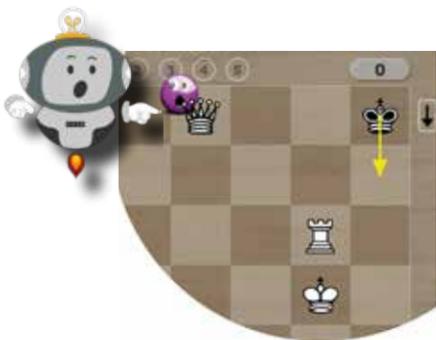
Game-Based Learning
Learn how to play chess in a fun and playful way

Easy Monitoring
Clear dashboards for both children and teacher

Online Tournaments
Daily online tournaments for school chess players

Free Home Use
Feeling motivated? Continue at home

Boost Confidence
No nerves for the School Chess Championship

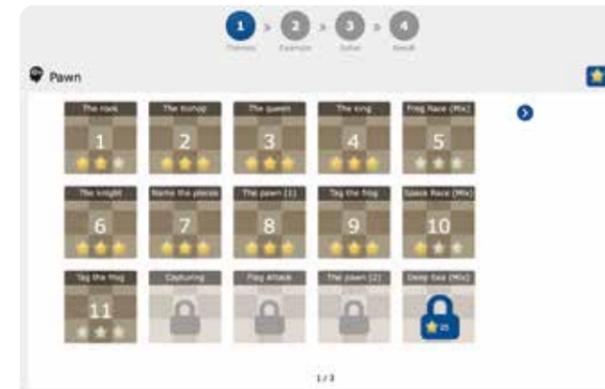


Elaborative Feedback

Learning from your mistakes. Chessto takes care of scaffolding, gives personalized help and adapts the level of difficulty.



Effective Chess Didactics



“

All 8- and 9-year old students at our school learn chess. In Chessity we have found an excellent didactical method. The program allows children to learn chess at their own pace, in an enjoyable way. Many children become so passionate about chess that they go above and beyond expectations.

Nico Arkesteijn, school director

Low Reading Level Required

The rook

The rook moves in straight lines. It can move forward, backward or sideways, as far as it likes.

Now look at the board: the rook can move to all 14 squares that have a plus sign in it. In one move, a rook can cross the whole board. But a rook can't jump over other pieces.

The rook looks like a castle. That is why people used to call the rook a castle.

What do you have to do?
First, move the rook to collect all the coins. Then, go to the flag and take that.

The rook can move to the green plus signs.



“

The children radiate enthusiasm. That makes it great fun to help out in chess class.

Boubker Kaouass, school volunteer

Fun Games



Starting is Easy: Take Up the Chessity Diploma Challenge

The Chessity Diploma Challenge is designed to help children learn the basics of chess and to introduce teachers to the use of Chessity step-by-step.

The children take up the challenge to obtain their Pawn Diploma in 12 weeks, with only half an hour of chess per week.

You will learn how to coach your students in their learning process. Step-by-step you will get to know the basic functions of the dashboard. It hardly takes you any time.

Chessity helps you with clear lesson plans and bonus materials. After 12 weeks, all the children can play chess so well that they can join a chess tournament at your school to end the challenge.



Bonus: Cheat Posters



Last week my class participated in an online Chessity tournament for the first time. It was inspiring to see how much the children enjoyed themselves."

Learning Chess = Playing Chess

Learning to play chess is fun, but playing chess against other children is even more fun! That's why **every school day** children can play **10 online chess tournaments** at Chessity.

Play against classmates or students from other schools in a safe online environment.



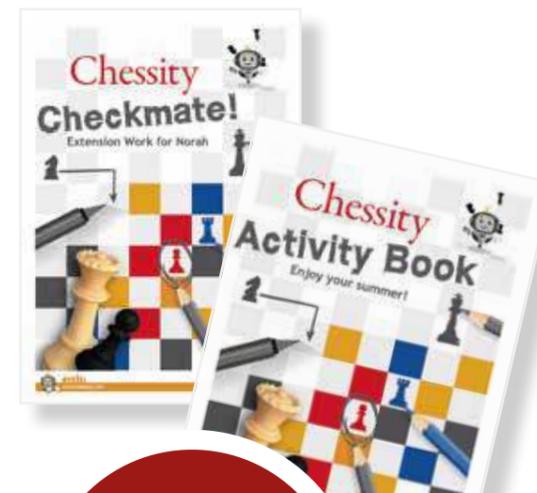
Chess Report: Explicit Value

By including chess on the report card or in the portfolio, you make the value of chess manifest for everyone. Children see that their efforts are taken seriously and their parents experience this as well.

This automatically generated report shows in a glance the growth the student is making in chess.



Additional Materials: Personal Workbooks



Knowledge Center
Step-by-step information on the use of Chessity

Chessity Academy
Get started in minutes with short videos and how to's

Community
Share experiences with other teachers

Fully Online
No need to install anything. Works on any device

Certified Diplomas
More than 7,000 official chess diplomas issued

Successful
75,000 students at 1,750 schools

Discover the ease of Chessity

DO A WORKSHOP

Fancy an exciting learning adventure?

Do a **free chess workshop** and experience the fun and ease of Chessity with your students.

- > Learning starts in 3... 2... 1...
- > No chess skills required
- > Pleasure in learning comes first

The online chess workshop is suitable for ages 5-13 and lasts about 60 minutes. But chances are both you and your class will want to keep going...

Book your free workshop now:

WWW.CHESSITY.COM/EN/WORKSHOP-REGISTRATION

Benefit From the Success

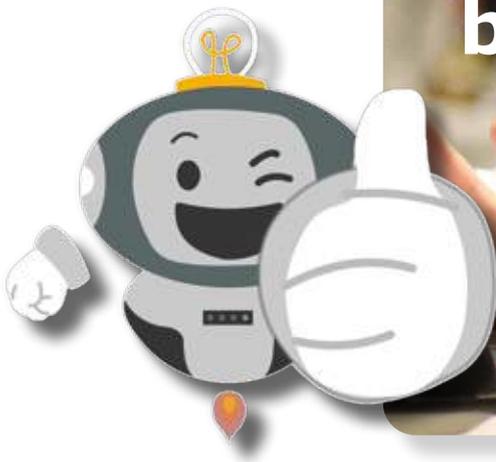
325+ scholen

12,000+ students per month

6,000+ diplomas

Questions?

contact@chessity.com



Learning has never been so much fun



Benefits of Chessity

- > **Personal:** interactive and adaptive learning and practising
- > **Engaging:** children experience the joy of learning
- > **Smart:** intelligent digital didactics
- > **Comprehensive:** includes 21st-century skills
- > **Affordable:** fits any school's budget

