

# Eye Gaze in the Classroom



- Assess
- Include
- Engage
- Empower

Visit us at  
Booth #417

# What is so different about eye gaze?

Eye gaze technology is perhaps the most exciting, innovative and important piece of assistive technology to hit the special needs classroom in decades.



**In one way, eye gaze should be seen as just another potential access method for those with physical disabilities. In practice, we are seeing users of other access devices, particularly switch users, generally finding eye gaze access quicker, easier, less fatiguing (more so with practice) and a lot less restrictive.**

## A shift from switches to eye gaze

This is particularly important for AAC users, where speed and flexibility are important factors in communication. We have seen a huge shift to individuals using eye gaze to access communication software that once used switch access.

With a massive drop in the price of eye gaze technology in recent years, we are beginning to see special schools and services around the globe adopt eye gaze devices to complement their fully inclusive, accessible classrooms and resource kits.

We are starting to see schools use eye gaze more creatively, and use it with a range of their favorite software and websites, not just with specialist eye gaze titles.

However, eye gaze does differ from other access devices - it can be used as an OUTPUT device and used to control, but we can also, with the right software, use it to gain insight into what is INPUT, i.e. the information the student is processing visually.

## Observe what our students see

Eye gaze technology has been used in this way for many years in the research field, but it is only now we are able to use this technology in the classroom to give teachers and therapists objective and functional feedback and analysis on students' looking behaviors.

With the right tools we can start to observe what our students see, attend to and track on screen; what they notice and don't notice, what they prefer to look at and what sense they make of what they see.

These are fundamental skills that most of us have not had the tools to assess or look at in detail before now. Such understanding of our most complex students could lead to changes in our teaching practice and open up wider opportunities for our students to interact and engage.

## Assess

Many students with complex physical and learning needs also have additional visual difficulties that can remain undiagnosed or unconsidered during their years in education. Eye gaze technology can now give us the ability to objectively observe what a student can attend to and notice on screen.

What color, size and type of image can they detect? Can they track moving objects? What are their eye movement patterns like? Do they scan the choices on screen? Can they compare and discriminate between images?

We are also interested in what images or parts of images students prefer to look at given choice, where they look in response to questions or prompts. Eye gaze technology can help us objectively record and review where a student looks to gain insight into their thinking process.



All the titles in the Inclusive Eye Gaze Software include powerful, but easy to use Analysis tools.

*"The analysis tools are my personal favorite aspect of the software. They are easy to understand and are great for sharing progress with parents. I particularly liked the heat maps and would find these useful for assessment of eye tracking. It also helped me to see what the students found reinforcing which is very important to motivate communication."*

**Karen Carmody, Speech and Language Therapist**

## Include

The ultimate aim with any student using alternative access is to enable the use of the same resources and software as their peers. Switch software, though quite expensive, will remain limited, with the range and potential of mouse and touch accessible software far surpassing it. Eye gaze devices, such as myGaze with EyeMouse Play have been specially designed to easily emulate mouse access, thus widening the range of software titles available to the student using eye gaze technology.



*Katie just has to look at the screen to play the next verse of the song.*

Although, as with any access method, some practice is needed to use eye gaze with control and accuracy, there is often not the same time investment needed in learning pure access skills compared to other methods. Students can jump quickly to using the technology to achieve educational goals.

Whether the student is at the level of learning cause and effect or beginning to make choices, teachers and therapists now have the ability to let eye gaze students access their favorite classroom software and join in with lessons at an appropriate level.

*"We use it with SLD and PMLD students and pupils with visual difficulties – to help develop vision and visual awareness. We used it across the school – pre-school, primary, secondary and also 16+."*

**Iveta Power, ICT Coordinator, Chailey Heritage**

## Engage

Some students with complex needs can appear to be uninterested in using technology or looking at screens. This could be for a variety of reasons; unrewarding, effortful or frustrating use of technology in the past, the content is not interesting or meaningful or perhaps they are at an early stage of interaction. The first place to start is fun!

Providing a stimulating environment may be one answer. Some schools are starting to include eye gaze technology in their sensory environments, controlling interactive screens and floors with just a look.

Remember most individuals need frequent practice and appropriate support to develop the skills needed to use formal communication or recording packages. Providing opportunities to play a wide range of different games and fun activities will help refine access skills and encourage students to want more. Get the student motivated then learning will follow.



*Declan playing Eye Can Fly*

*"This is a chap who has sat in his chair since he was 19 with very little to occupy himself with. This game has changed not only his life in some small way but also his parents' lives because they are seeing him playing an activity that looks like a similar game that their grandkids play on the Wii. I personally find this title to be one of the most exciting to come out in years."*

**Sean Carroll – IT/AT Consultant.  
Feedback – Eye Can Fly**

## Empower

Moving on from early interaction skills, eye gaze devices have the capacity to give you full PC access to really empower your student. Launch and control standard applications such as Word, surf the Internet, communicate by email, Facebook or Skype, even control your environment, the possibilities are endless.

# The myGaze Learning Wheel

The essential components of an eye gaze system. At the very center is the tracker device (myGaze) which detects and follows your eye gaze.

Driving the tracker is the interface software (EyeMouse Play) which enables you to choose mouse functions and control settings for calibration and interaction.



Learning objectives make up the 'iris' and are categorized according to the skills you want to teach – this includes the software or content of your system.

These are bound by overall aims of what you hope you and your student will ultimately achieve with eye gaze; assessment, inclusion, engagement or empowerment.

## Factors to consider when choosing an eye gaze system

### 1. Aims

Have a clear idea of your ultimate aim for the student using eye gaze. Is it to assess, include, engage or empower the student? Students may have more than one aim e.g. you may want to initially assess a student's visual skills and also include them in using simple cause and effect software or you might want to engage a user who has 'switched off' and empower them to control their own environment. Choose software that provides analysis tools to allow you to make baseline and ongoing assessments of the student's skills and progress so that aims and objectives can be referenced and adjusted accordingly.

### 2. Learning Stage

Identify your teaching objectives and the stage of learning your student is at. Like any other access method, users will need some time and practice in developing their accuracy and control of eye gaze. Some students will quickly work through all the stages of learning to become competent at eye gaze, while others will need longer and specific resources suited to their learning level. The table above gives you guidance in how specialist eye gaze software can be categorized into learning stages to meet different teaching objectives. Check out "How to use myGaze with HelpKidzLearn" at [www.inclusive.co.uk/catalogue-downloads](http://www.inclusive.co.uk/catalogue-downloads)

### 3. Motivation

It is important when introducing any new technology to a student that their first experience is positive and fun. Choose activities that match their interests, give immediate feedback and automatic success. Try to avoid too many prompts or questions and allow the student plenty of time to explore and experience eye gaze by themselves. Try to provide a variety of activities and play them frequently for short periods. If you are not sure what motivates your student, make this one of your first aims and try a variety of images, sounds and video and observe what captivates them most using eye gaze analysis tools.

# Learning Stages Software

Aim	Learning Stage	Software
Assess	 Visual Skills	Attention and Looking
	 Preferences and Comprehension	Attention and Looking / Exploring and Playing / Choosing and Learning
Include	 Cause and Effect	Attention and Looking / HelpKidzLearn / Sensory Eye-FX / Look to Learn
	 Turn Taking	Exploring and Playing / HelpKidzLearn
	 Exploring and Control	Exploring and Playing / Choosing and Learning / Eye Can Fly / HelpKidzLearn / Sensory Eye-FX / Look to Learn
	 Choice Making	Exploring and Playing / Choosing and Learning / Eye Can Fly / HelpKidzLearn / Chooselt! Maker 3 / Look to Learn
	 Curriculum	Eye Can Fly / HelpKidzLearn / Chooselt! Maker 3
Engage	 Stimulate	Attention and Looking / HelpKidzLearn / Sensory Eye-FX
	 Games and Leisure	Exploring and Playing / Eye Can Fly / HelpKidzLearn / Look to Learn
	 Communicate	Choosing and Learning / Chooselt! Maker 3 / The Grid 2
Empower	 Windows Control	The Grid 2
	 Environmental Control	The Grid 2

## 4. Visual Skills

Before trying eye gaze, find out if the student has any recognized visual difficulty that could affect seeing images on screen. Most eye gaze devices cope well with different types of glasses (though special coated or progressive lenses may be less successful). Check for bright lights reflecting off screens and lenses or thick frames that could interfere with eye gaze detection. There is usually an option to track just one eye to compensate for physical eye movement difficulties. Eye gaze analysis tools can help in assessing basic visual skills such as detection, tracking, scanning and discrimination.

## 5. Positioning

With all access devices positioning is critical in achieving success. Ensure your student is positioned correctly according to guidance from your eye gaze device so that the tracker can easily detect their eyes and the student is comfortable and relaxed. To achieve this, some students may need a flexible mounting system to position the screen at the right angle and height. For others you may need to consider a portable system or a classroom resource that can be altered for a range of students. Try to consider who you are going to use it with, where will it be used and on what device at the onset.

## 6. Support and Training

Setting up, using and adjusting eye gaze devices has often needed the support and guidance of experts in the field. At Inclusive Technology we believe that this process should be made as simple as possible so that more professionals and students can benefit from this amazing technology. We have worked hard to design and deliver easy to use, intuitive interfaces and software that require little or no training to use. However, it is still going to need the expertise and support of the team around the student to interpret results and provide the right resources and time allocation to ensure success.

# myGaze Assistive System

The new standard for easy and affordable gaze control.



# myGaze®



## myGaze Assistive System

myGaze Assistive, created by Visual Interaction, is gaze control of computer programs made easy and affordable. It is well suited for special needs students and their teachers as well as adults who rely on gaze for communication and environment control. No more expensive specialist support and training! With the myGaze Assistive System installed onto your desktop, laptop or tablet, you can use your gaze to do everything: explore, play games, learn, participate in classroom activities, communicate, control your PC and environment and more. Have a look at the myGaze Wheel to find out about all of your favorite activities available with myGaze.

## What's included?

### myGaze Eye Tracker



The myGaze Eye Tracker, a state of the art access device that tracks where your eyes are looking and turns that into computer control!

- Works with any assistive and mouse driven software.
- Works with all eye colors and most lighting conditions.
- Small and portable - easily transported between computers at home or school.
- Can be used across any Windows devices with 10" - 22" screens.
- A product of 20 years of research and development.

### EyeMouse Play Software

Designed for the needs of 'independent' users as well as 'supported' users and their teachers and parents:

- Intuitive "glasses" positioning guide.
- Individual profile settings for different users and devices – ideal for classroom & assessment.
- Keyboard shortcuts to change settings without disrupting current activity.
- Mouse-over-gaze precedence provides control and convenience to teachers.
- Easy on-screen 'Access Button' and 'Gaze-at-Camera' for various levels of independence and abilities.
- Rich calibration customization to cater for individuals' specific needs and interests.
- Mouse and configuration menu are fully gaze accessible.



# myGaze Assistive System

The new standard for easy and affordable gaze control.

## Who is it for?

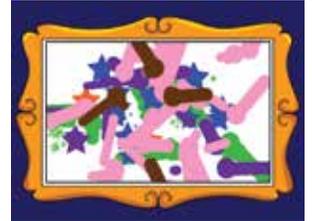


myGaze Assistive can be used with many children and adults with conditions such as;

- Physical Difficulties.
- Communication Difficulties.
- Intellectual Difficulties.
- ALS and Multiple Sclerosis.
- Cerebral Palsy and Rett Syndrome.
- Autistic Spectrum Disorder.

## What can you do with it?

Everything you can do with a mouse! The myGaze Assistive System will follow your gaze on the screen and let you move the cursor and issue mouse commands through multiple input methods such as "dwell", "blink" and "switch".



*I've found that even a 1 point calibration enables me to access single left click 'Switch IT' type activities, Target and Touch, Chooselt! Maker activities through to grid-based communication software. I also like how you can set up keyboard shortcuts to features such as increase/decrease dwell time, pause eye gaze, and positioning guide (track status) so that these can be adjusted and fine-tuned without going in and out of the software you're using!*

Joanna Courtney - CALLScotland

The myGaze system is designed for simplicity and ease of use, suited for those new to eye gaze and for use with all levels of ability. You no longer need specialist support and training to get started. Launch one application and follow the simple 3 step guide to set up in seconds!

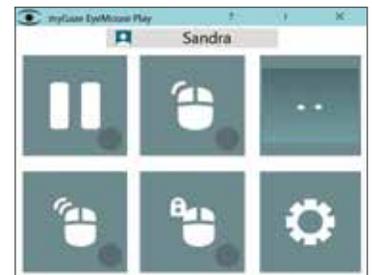
- No screen measuring or training required to use, designed to be intelligent and intuitive.
- A simple 3 step guide to position, calibrate and choose your mouse function enables you to get set up and start using in seconds.
- 0-point or an easy 1-point calibration gives great functional accuracy for users with limited attention skills.
- Also offers up to 9-point calibration for pixel accuracy.
- 98% of users never require customer support.



**Position** - use the intuitive "glasses" guide to quickly gain optimum positioning for eye gaze.



**Calibrate** - an immediate one point calibration gives great functional accuracy for most users.



**Go** - Choose the cursor function and dwell settings you want and you are ready to eye gaze!

*'Set up was incredibly easy, as is using it; we have not needed to read any instructions which is always good. ... Sally very quickly understood she was activating the program with her eyes...I can't describe the feeling we all had when we realised she could do it, it was one of those goose bump moments, we all felt it at the same time!' Carol Allen, Beacon Hill*

myGaze Assistive System

\$1,495

For technical and more information please visit,  
[www.inclusive.co.uk/mygaze](http://www.inclusive.co.uk/mygaze)

## Attention and Looking



These fun and meaningful activities can be used with all children on their first steps with eye gaze. They provide a progression of skills from experiential and cause and effect to targeting, and include customizable activities to cater for specific interests and motivations.

Powerful, but simple to use analysis and record keeping tools help you to assess initial skills and keep accurate records of progress.

### Tracking – What are you looking at?

- ‘Eye-catching’ activities designed to attract attention and encourage you to look at and follow images on screen.
- Assessment of eye movement patterns, visual attention, preferences and discrimination skills.
- Graded teaching of tracking skills – magic animations to encourage purposeful looking and tracking.

### Fixating – Are you looking?

- Fun and meaningful activities that provide immediate success

and feedback. Use the mouse pointer to interact, paint and reveal.

- Motivating activities designed to encourage you to look and keep looking at the screen.
- Assessment of visual attention and fixation skills.
- Graded teaching of dwell click skills for single targets.

### 3. Locating – Looking around

- Fun and meaningful activities that provide immediate success and feedback. Use the mouse pointer to interact, paint and reveal.
- Assessment of visual scanning skills and ability to use the mouse cursor to explore the screen.
- Graded teaching of using mouse cursor movement in a purposeful way.

Single User Activation Code	\$295
5 User Activation Code	\$590
10 User Activation Code	\$885

*“We have found it a very useful tool for our eyegaze project in school. The activities are fun, engaging and the program is easy to use by all staff. By far the best feature of it is the ability to do automatic video heat map recording. This allows us to do quick assessments on a pupils ability to track, dwell and see how they are interacting with the screen ... beneficial to both assess current abilities and also to show skill progression.”* **Anthony Rhys – Special Needs Teacher**

## Exploring and Playing



18 fun packed games and exploring opportunities to play on your own and with friends. Assess and improve your targeting and access skills and progress from cause and effect to early choice making. Learn to take turns or do just what you want. You can even make your own music machine!

### Take Turns

- Introduce concept of choosing from more than 1 item on a screen. Includes sequential, forced order and two player access.
- Develop dwell select skills of 2+ large targets.
- Teach turn taking concepts; take turns to interact, take turns to do a job, take turns to play a game.

### Explore

- A progression of easy to access targeting activities.
- Develop dwell select skills with 4 – 8+ targets and introduce select and drag access.
- Teach purposeful exploration of the screen and early control skills.

### Choose Anything

- Introduce choice making with multiple errorless choices.
- Develop and reinforce multiple target access skills.
- Teach early choice making skills and provide opportunities to express preferences in an error free environment.

Single User Activation Code	\$295
5 User Activation Code	\$590
10 User Activation Code	\$885

*“Exploring and Playing provides further stimulating opportunities for eye gaze users to practice and develop their skills. I like the Juke Box activity that bridges into personalized choice making. The turn taking activities are important for the least independent students who tend to have very few meaningful opportunities to develop these skills. The software is intuitive and easy to use, which allows the teacher to focus on student performance rather than on making the system work.”* **Andrew Walker – AAC/ICT Coordinator**

## Choosing and Learning



Prepare eye gaze users for further communication and learning activities by developing choice making and access skills. Includes 18+ motivating and meaningful activities that are designed to develop;

- Understanding of early language and learning concepts.
- Expressive skills – show preferences, give commands and express opinions.
- Accuracy of targeting, clicking and drag and drop access.

Add your own pictures and sounds to extend the activities to your specific communication and curriculum needs.

### Preferred Choices

- Introducing a cognitive or decision making element to

choosing with easy access targets. Preparation for simple quiz access e.g. Chooselt! Maker.

- Assessment of early concept understanding and decision making abilities.
- Teaching decision making skills using early concepts and giving opportunities to show preferences with consequences.

### Linear Choices

- Introducing multiple choices presented one at a time for easy decision making. Preparation for simple book access.
- Assessment of choice making skills.
- Teaching 'scrolling' through choices and simple decision making.

### Multiple Choices

- All activities have a cognitive or decision making element to choosing with multiple targets. Including dwell click and click and drag access. Preparation for word or symbol grids access.
- Assessment of choice making skills with multiple choices.
- Teaching categorization skills and making choices to communicate and learn.

Single User Activation Code	\$295
5 User Activation Code	\$590
10 User Activation Code	\$885

**Attention and Looking, Explore and Playing and Choose and Learning all feature options to personalize activities for individual students as well powerful analysis tools.**

## Options



Extensive option menus allow you to;

- Personalize for assessment and teaching goals.
- Ensure success and motivation.
- Provide progressive teaching steps.

## Analytics



- **Powerful**, easy to use analysis tools allow you to record and review eye gaze skills.
- **Live video playback** of eye gaze behavior during activities.
- **Heat map recording** showing areas of concentrated gaze during activities.
- **Line trace map recording** showing path of eye gaze during activities.

## Reports



- **Instant report** and record keeping with ability to save or print out a report giving details of timings, options chosen and heat map analysis of eye gaze behavior during activities. Use for your assessment and progress records.

**Buy all 3 titles and save!**



Single User Activation Code	\$799
5 User Activation Code	\$1,595
10 User Activation Code	\$2,389

# Inclusive EyeGaze Foundations



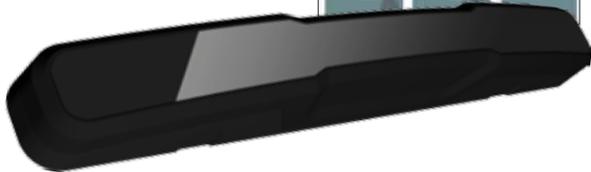
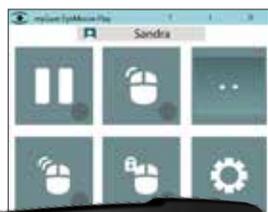
**Let your eyes take control.**  
**All you need to get started with eye gaze access.**

This package has been specially designed by Inclusive Technology to meet the needs of teachers, therapists and carers working with students with physical disabilities, cerebral palsy, visual impairment, intellectual difficulties, autistic spectrum disorder and communication difficulties.

## What's included?

**myGaze**

Eye Tracker and  
EyeMouse Play



Inclusive  
**EyeGaze**

Attention and Looking  
software

**Universal** - myGaze Eye Tracker works with any software.

**Affordable** - High quality and low cost for schools & families.

**Easy to Use** - Unique 3 step process takes seconds to set up for individuals. No training required.

**Portable** - Easily transported between computers in the home or at school.

**Progression** - 18 carefully graded activities designed to assess and teach early eye gaze skills.

**Analysis** - Powerful real-time video, heat map and line trace recording and printable reporting.

*"Intuitively designed and ready to go for people with a basic understanding of eye gaze technology. Engaging activities that amused the children and staff alike. The opportunity to customize pictures and music was a clear advantage and the ability to 'see' where the user was looking during the activity offered a rare insight into the mind of the user."*

Karen Carmody – Speech and Language Therapist

Inclusive EyeGaze Foundations 1 user

\$1,695

# Inclusive EyeGaze Education



**A complete eye gaze solution for the classroom.  
From cause and effect to communication.**

**Assess, Include and Engage your students with the Inclusive EyeGaze Education package. The Inclusive EyeGaze Education package includes a full set of Inclusive EyeGaze titles, Attention and Looking, Exploring and Playing, Choosing and Learning and myGaze Eye Tracker. The package includes everything you need to introduce eye gaze into the classroom for students with all levels of ability.**

## What's included?



myGaze Assistive Gaze Technology by Visual Interaction. The new affordable eye tracker for a wide range of users. See [www.inclusive.co.uk/mygaze](http://www.inclusive.co.uk/mygaze) for more details.



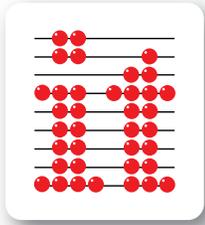
Attention and Looking, Exploring and Playing and Choosing and Learning Software



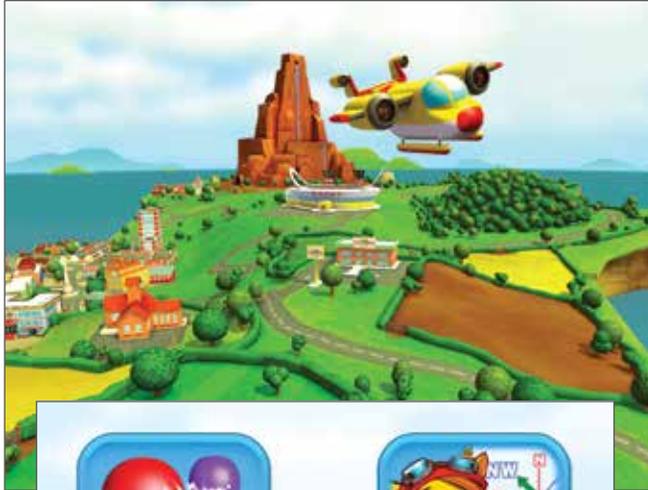
These 54 fun and meaningful activities can be used with any child trying their first steps with eye gaze. The Inclusive Eye Gaze Software provides a progression of skills from Cause and Effect to Communication and Learning, ensuring success and effective teaching while gathering data for teachers' analysis of the student's performance, preferences and progression.

Inclusive EyeGaze Education 1 user

\$2,179



# Eye Can Fly



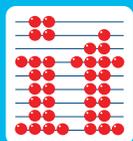
The world's first magical flying adventure designed especially for eye gaze devices. Let Aimee guide you through 24 unique and exciting missions. Master control of your aircraft to become a fully fledged pilot while learning Geography skills such as compass directions, landmarks and regions across the world as well as enhancing your eye gaze skills. In addition to eye gaze, play can also be controlled with any mouse pointer device, the keyboard, switches and joysticks.



Single User Activation Code	\$295
5 User Activation Code	\$590
10 User Activation Code	\$885



Eye Can Fly EyeGaze 1 user	\$1,695
----------------------------	---------



**Inclusive Technology**

E: [inclusive@inclusive.co.uk](mailto:inclusive@inclusive.co.uk)  
[www.inclusive.co.uk](http://www.inclusive.co.uk)

**HelpKidzLearn**

E: [info@helpkidzlearn.com](mailto:info@helpkidzlearn.com)  
[www.helpkidzlearn.com](http://www.helpkidzlearn.com)

Local Agent