Scanmarker Max

Assessor Recommendation Guide

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Introduction

The **Scanmarker Max** is a fully standalone, portable assistive technology touchscreen reading device. No computer or mobile app is required for use and so it is possible to read, listen, and take notes across various learning/study and teaching environments. Despite this, using the **Scanmarker Web App** (app.scanmarker.max.com) it is possible to scan directly to a computer or mobile device.

The Scanmarker Max provides the broadest and most flexible support across multiple disability types; however, the Scanmarker Reader and Scanmarker Pro remain valid options where a student's needs are more specific or where a simpler, device-dependent or lower-feature solution is sufficient.

The choice of device should therefore be based on individual need, context of use, and the level of functionality required to support independent study. Device selection should be proportionate to need and represent an appropriate and cost-effective adjustment under DSA guidance.

Key Features and Benefits

- **Accurate and controlled reading:** The Scanmarker Max reads printed text line by line. This real-time auditory feedback, in natural sounding voices, helps students to control their reading rate, pace and thereby aids focus and retention.
- **Adjustable reading rate:** It is possible to regulate the pace of speech output, aiding cognitive load and enhancing comprehension.
- **English Dictionary support:** It is possible to look up and listen to read-aloud definitions and pronunciations in English, with the ability to save favourite entries for repeated listening. Students can select scanned words for immediate definition, supporting vocabulary retention and decoding. Offline use avoids distraction for focused reading support.
- **Favourites:** Words and phrases can be saved to practice reading and vocabulary.
- **Enhanced Optional Character Recognition (OCR):** The Scanmarker Max offers high recognition accuracy across varied academic formats, including diagrams and printed materials, and differing font types, with instant conversion of text to editable digital form. The Scanmarker Max offers a reduced error rate compared to earlier pen scanners (e.g., Scanmarker Pro or C-Pen Reader). Offline processing, ensures accessibility in non-traditional teaching /practical/fieldwork conditions without network/Internet dependence. Therefore, the Scanmarker Max offers support via a single reliable device that can perform multiple functions i.e. capture text and read aloud).
- A **built-in camera** means that it is possible to take a photo of text to have it read aloud.
- **Ensures equitable access to academic resources:** Although a significant proportion of course materials are now delivered electronically, there remains a substantial volume of essential academic content that exists only in printed or physical form. This includes library books, journal articles held in print-only collections, reference material, printed handouts, field manuals, examination papers, course readers, and materials distributed in lectures, seminars or workshops. Where there are problems accessing print materials due to disability, the use of the Scanmarker Max will enable equitable access to all required course materials, whether digital or printed. This is advantageous for university courses that are research heavy, fieldwork/practical oriented, and exam and assessment-focused.
- **Audio Recording:** With the Scanmarker Max users can record and store voice memos and playback on the pen. Export as an MP3 is possible once connected to a computer via usb cable.
- **Transcription:** Converts speech into written text in real time. This supports students who have difficulty with handwriting and note taking. Transcriptions are saved on the device and exported when connected by usb to a computer.
- **Bluetooth Connectivity:** For students with visual loss, poor mobility, mental health conditions, and sensory sensitivity, bluetooth connection for headphones will allow for personal and private audio playback to improve concentration and accessibility. Content can therefore be reviewed in communal study spaces and/or libraries, for example.

Wired earbud compatibility for the Scanmarker scanners.
The Max model, like the Scanmarker Pro, supports *only analog Type-C earbuds*, not digital USB-C models. Compatible earphones are supplied with the Scanmarker Max.

- **Portability:** The Scanmarker Max allows for offline operation. Audio and OCR features function without an internet connection.
- **Inclusive design:** Text can be captured, with the device, using either hand, enabling flexible positioning and accessibility, suitable for students with motor and strength limitations. A ruler is also supplied with the device to help with tracking for users with fine motor challenges.
- **Privacy:** For courses where confidentiality is a concern, a critical benefit is that all information is stored directly on the device and no data is automatically synced online. Text, notes, and voice recordings captured on the Scanmarker Max are automatically saved to the device's internal memory; Information remains under the control of the student. This ensures complaint management of any sensitive material and reduces stress about data privacy. This also promotes simplicity and reduces cognitive load. In some environments such as placement settings, TTS software may be restricted due to network security or unavailable, whereas the Scanmarker Max may be permitted as a standalone reading aid.
- **Expandable storage:** The Scanmarker Max has 8 GB of internal memory, which allows students to store thousands of OCR-captured text files, translations, and voice memos directly on the device. In addition, a card slot supports expandable storage up to 128 GB, thus giving students the ability to significantly increase capacity for study materials without reliance on external software or online storage.
- **USB Export Function/Effortless Data Transfer:** The Scanmarker Max can also connect to a Windows computer via a standard USB-C cable, enabling the device to be recognised automatically as an external drive. This provides a plug-and-play connection requiring no specialist software, passwords, or pairing procedures, ensuring accessibility for students who may struggle with complex setup processes. For Mac users, a lightweight driver supplied by Scanmarker enables similar functionality, ensuring cross-platform access. The USB export feature provides significant accessibility and independence benefits for students where disability affects mobility, dexterity, vision, concentration, or ability to sustain effort on study. Furthermore, for neurodiverse learners or students with mental health difficulties, the simplicity of direct file transfer reduces task complexity and error risk, improving workflow efficiency and confidence. It also allows for consistency and predictability.

Unlike similar single-purpose assistive devices, the Scanmarker Max integrates reading, note-taking, and auditory access tools in one compact scanning-pen.

These multi-functional capabilities align closely with DSA funding guidance, which emphasises protection of the public purse, and the importance of ensuring that funded equipment meets individual disability needs whilst avoiding unnecessary duplication of support.

The device can support a range of disability-related study needs and supplements HEP provision. It also permits independent access to learning material across all aspects of study including reading, research and library work, note-taking/lectures, and fieldwork/placement without the need for an internet connection. In line with the Department for Education (DfE) and SLC's policy emphasis on flexible and inclusion

participation, the Scanmarker Max allows for continuity across learning environments as well as across diverse disability profiles, and will enable students impacted by disability to engage on equal terms and at a level commensurate with peers.

Intended target groups - disability related need(s)

Disability Type	Example Conditions
1. Specific Learning Difficulties (SpLD)	Dyslexia, dyspraxia, ADHD
2. Mental Health Conditions/SEMH (Social, Emotional & Mental Health)	Anxiety, depression, PTSD
3. Long-term Illnesses / Medical Condition	Chronic fatigue, diabetes, epilepsy
4. Sensory Impairments	Hearing or visual impairment
5. Physical/Mobility Disabilities	MS, Cerebral Palsy (CP)
6. Autistic Spectrum Conditions (ASC)/Communication & Interaction	Autism, Asperger's, speech/language disorder

1. Specific Learning Difficulties (SpLD)

Research and Reading

- Students with an SpLD can experience slow and inaccurate decoding of printed text, leading to reduced reading accuracy and impacting overall comprehension. Dyslexia in particular can result in slow, effortful reading, difficulty retaining information, and increased cognitive load when engaging with dense printed materials such as academic textbooks, journals, and handouts. Dyspraxia may further affect the ability to take notes from reading due to difficulties with handwriting and coordination, while ADHD can impact sustained attention and the ability to engage with continuous or multi-step tasks. Difficulties with working memory and processing speed can also make it challenging to manage large volumes of printed material and complete multi-stage workflows, such as scanning, saving, and reusing text for revision or assignments. The ability to control the pace of reading and hearing text in real time may also assist with understanding complex or directive language, helping an individual to engage more effectively.
- The **Scanmarker Max** supports these needs through real-time, line-by-line OCR reading with natural-sounding audio feedback, enabling students to hear text as they scan and visually track content simultaneously. Adjustable playback speed allows students to regulate the pace of input, supporting comprehension and reducing cognitive overload. The integrated dictionary with pronunciation and favourites function supports vocabulary development and reinforcement, while the voice memo

feature enables students to capture ideas quickly where working memory or sustained writing is difficult. The ability to export scanned text as editable files supports efficient organisation and reuse of information for academic tasks.

- Using headphones with the Scanmarker Max enables students to access text through focused audio in a distraction-reduced way. This can support sustained attention and concentration, particularly for students with ADHD, by minimising external distractions and helping to maintain engagement with reading tasks.

- A key advantage of the Scanmarker Max is its fully standalone functionality. Unlike standard text-to-speech tools available on Windows, macOS, iOS, and Android devices, or features such as Immersive Reader, which rely on pre-existing digital text, internet access, or switching between applications, the Scanmarker Max enables immediate access to printed materials without the need for additional software, setup, or connectivity. This removes multiple steps from the workflow, which is particularly important for students with SpLD who may experience difficulties with sequencing, organisation, and task initiation. The ability to scan and hear text instantly reduces reliance on complex processes and supports more independent and efficient study.

- Furthermore, standard built-in tools do not provide a consistent or practical solution for accessing physical materials such as library books, printed journal articles, handouts, or exam papers. They are typically limited to digital environments and often require copying and pasting text, using multiple applications, or navigating between platforms, which can increase cognitive load and disrupt focus. In contrast, the Scanmarker Max provides a single, integrated solution that combines text capture, reading, note-taking, and storage within one device.

- Importantly, the Scanmarker Max can be used across a wide range of learning environments, including lectures, libraries, placements, and fieldwork settings, without reliance on internet access or institutional systems. This supports continuity of access and enables students to engage with materials in real time, regardless of context. For students with SpLD, this reduces barriers to accessing essential course content, supports independence, and ensures equitable access to both printed and digital academic resources.

Writing and Reviewing Academic Work

- Students with an SpLD may experience difficulties with interpreting assignment briefs, identifying directive words (e.g. “analyse”, “compare”, “evaluate”), organising research, and reviewing written content. The **Scanmarker Max** can support writing and reviewing academic work by enabling students to scan and listen to assignment briefs or printed guidance in real time. Hearing text read aloud while visually tracking it can support comprehension and help break down complex or directive language into more manageable parts, reducing the risk of misinterpretation.

- The device also supports the preparation phase of writing by allowing students to capture key information, quotes, and passages directly from printed books, journals, and other source materials. These can be saved, replayed, and exported as editable text, enabling students to revisit and engage with research in a structured way.

- Listening back to captured content supports retention and understanding, particularly where reading is slow or effortful. While the Scanmarker Max is not a primary writing tool, it is a bridging tool.

- For reviewing academic work, the Scanmarker Max can be used to re-scan printed drafts or notes and listen to them read aloud, supporting proofreading and identification of errors or unclear phrasing. While it does not replace full writing software, it provides an effective bridge between reading and writing tasks, particularly where students rely heavily on printed materials.

- Unlike standard built-in text-to-speech tools, which are limited to digital text and require multiple steps to access printed content, the Scanmarker Max provides immediate, standalone access to physical materials. This reduces cognitive load, simplifies workflow, and supports a more efficient transition from research to written work, promoting independence and accuracy in academic tasks.

Note-taking in Lectures and Seminars

- The **Scanmarker Max** can support note-taking in a complementary way rather than replacing full note-taking support. It is particularly useful where printed materials, memory, and processing are the main barriers.

- Students with an SpLD may experience difficulties with note-taking in lectures due to challenges with processing speed, working memory, and attention. This can make it difficult to listen, understand and record information simultaneously, particularly in fast-paced teaching environments. The Scanmarker Max can support note-taking by enabling students to scan and listen to printed lecture materials, such as handouts or slides, in real time. This allows students to access key information without needing to rely solely on handwritten or typed notes, reducing cognitive load during lectures.

- The device also supports the capture of key information by allowing students to scan important sections of text and save them for later review. These scanned notes can be replayed using text-to-speech or exported as editable text, enabling students to revisit and consolidate learning after the session. This is particularly beneficial where working memory difficulties make it harder to retain information presented verbally

during teaching.

- In addition, the built-in voice recording function allows students to capture verbal notes or reflections, supporting idea capture without the need for sustained writing. This can be helpful where handwriting or typing is effortful or where fatigue impacts note-taking ability.

- While standard devices may offer basic note-taking or recording functions, they often require multiple steps, applications, or reliance on digital materials. The Scanmarker Max provides a more immediate and integrated approach for working with printed resources within the lecture environment. As a standalone device, it enables students to access, capture, and review information efficiently, supporting engagement and reducing barriers to participation in taught sessions.

Access to and use of technology

- Students with an SpLD may experience difficulties accessing and using technology effectively, particularly where tasks involve multiple steps, switching between applications, or managing digital workflows. Difficulties with processing, working memory, attention, and organisation can make it challenging to use standard software tools efficiently, especially where these rely on copying, pasting, or navigating between platforms to access and convert text.

- The Scanmarker Max supports access to technology by providing a simple, standalone solution that reduces reliance on multiple devices, applications, or complex processes. As a fully portable device, it allows students to scan and listen to text directly from printed materials without requiring internet access, additional software, or prior setup. This significantly reduces task complexity and supports immediate access to information, which is particularly beneficial for students who may struggle with sequencing or initiating multi-step tasks.

- The device also enables seamless transfer of scanned content into digital formats via USB connection, allowing text to be exported into platforms such as Word or Google Docs for further use. This supports integration with standard academic workflows while maintaining a straightforward and predictable process. The plug-and-play functionality avoids the need for logins, syncing, or navigating multiple systems, which can otherwise increase cognitive load and act as a barrier to engagement.

- While built-in accessibility features are available across standard operating systems (e.g. Windows, macOS, iOS, Android) and applications, these typically rely on digital text and require interaction across multiple tools. They do not provide a consistent solution for accessing printed materials or reducing the number of steps required to engage with content. The Scanmarker Max offers a more integrated and accessible approach, enabling students to access, capture, and use information across both physical and digital formats within a single device.

- Overall, the Scanmarker Max supports independent and efficient access to technology by simplifying workflows, reducing cognitive demands, and enabling consistent engagement across a range of study environments. This promotes greater independence and ensures that students can access academic materials in a way that

is both manageable and effective.

Practical Sessions, Placements, Field Trips and Additional Course Activities

- Practical sessions, placements, field trips, and other course-related activities bring challenges as information must often be processed and applied in real time. These teaching environments are often less structured and more unpredictable than lectures, requiring students to read instructions, follow procedures, and retain information quickly. Difficulties with working memory, processing speed, and attention can make it challenging to access and use printed materials effectively in these contexts.
- The **Scanmarker Max** can support participation in these settings by enabling students to scan and listen to printed materials such as handouts, instructions, manuals, labels, or fieldwork documentation in real time. The line-by-line reading function allows students to process information at their own pace, supporting comprehension and reducing cognitive load. This can help students to follow procedures more accurately and with greater confidence, particularly where reading under pressure would otherwise be difficult.
- As a fully standalone device, the Scanmarker Max does not require internet access, additional software, or connection to other devices. This makes it particularly suitable for use in environments where technology use may be restricted or impractical, such as placements, laboratories, workshops, or fieldwork settings. The ability to access text immediately supports independence and reduces reliance on others for reading support.
- In addition, key information can be scanned, saved, and replayed, allowing students to revisit instructions or important content as needed. This supports retention and reduces the impact of working memory difficulties. Overall, the Scanmarker Max provides a practical, portable, and low-effort solution that enables students to engage more effectively in applied learning environments and access essential information in real time.

Examinations and Timed Assessments

- The Scanmarker Max, when used alongside the Scanmarker Web Application, includes a summary tool which can be used to break down dense academic reading material. This can support individuals during the revision process, particularly where there are difficulties with comprehension and processing large volumes of information. In addition, the Scanmarker Max enables printed text to be converted into editable digital text across platforms such as Word, Google Docs, and PowerPoint. This allows users to scan research materials directly into their documents, supporting the efficient creation of revision resources and streamlining preparation for assessments.
- Students with an SpLD may experience difficulties in examinations and timed assessments, particularly where reading accuracy, processing speed, and comprehension of written questions are impacted. These challenges can affect the ability to interpret questions accurately, process information efficiently, and demonstrate knowledge within time constraints.

- The Scanmarker Max may offer potential support in examination settings, subject to approval by the relevant university or college and in line with specific examination regulations, where permitted in line with the rules and policies of the university/collegeHEP. There is a function lock using a PIN which can restrict access to features during exams and wired USB-C earphones can be used to listen to scanned text.

2. Mental Health Conditions/SEMH (Social, Emotional & Mental Health)

Research and Reading

- Printed academic material can be particularly challenging where concentration is reduced or where there is a tendency to feel overwhelmed by large volumes of text. This can impact engagement, comprehension, and the ability to sustain reading over time.
- The Scanmarker Max supports reading and research through a combination of integrated features including Optical Character Recognition (OCR), text-to-speech, translation, dictionary access, audio recording, transcription, USB export, and Bluetooth connectivity. These features enable students to scan printed text and immediately access it in an auditory format, reducing the visual and cognitive demands of reading. The ability to control playback speed and process text line by line supports a more manageable and self-paced approach, while the dictionary and translation tools support understanding of unfamiliar or complex academic language. Audio recording and transcription functions further support the capture and review of key information during the research process.
- Using headphones with the Scanmarker Max enables students to access text through focused audio in a distraction-reduced way, supporting sustained attention and concentration by minimising external distractions and helping maintain engagement with reading tasks. This also allows for discreet use in shared environments such as libraries, reducing anxiety associated with using assistive technology in public.
- As a fully integrated pen device (scan, read, translate, record, transcribe, and export), the Scanmarker Max enables students to use a single, consistent tool across a range of academic activities, including reading, research, note-taking, and preparation for written work. This consistency reduces the need to switch between multiple tools or systems, supporting routine and predictability. It also supports smoother transitions between tasks, as information can be captured, revisited, and reused within the same device and workflow. By providing a familiar and reliable method of accessing and managing information, the device helps to reduce cognitive load, minimise anxiety, and support more sustained and independent engagement with academic materials.
- As a standalone device, the Scanmarker Max allows students to read whenever and wherever needed, without reliance on Wi-Fi, multiple applications, or switching between systems. This supports continuity of study across environments and during periods of fluctuating mental health. In contrast, built-in text-to-speech tools available on Windows, macOS, iOS, or Android are limited to digital text and often require multiple steps, applications, or copying and pasting between platforms. This fragmented approach can increase cognitive load and act as a barrier to initiating and maintaining engagement with reading tasks.

Writing and Reviewing Academic Work

- Students may experience difficulty initiating writing tasks, organising ideas, and reviewing work, particularly where motivation is low or anxiety is heightened. The transition from reading and research into writing can also be challenging.
- The **Scanmarker Max** supports this process by enabling students to scan and capture key research material, quotes, and passages from printed sources. These can be saved and exported as editable text into familiar platforms such as Word or Google Docs, reducing the effort required to begin writing and supporting organisation of ideas. Listening back to scanned content can also support understanding and confidence when reviewing material prior to writing.
- For reviewing work, re-scanning printed drafts and listening to them read aloud can help identify unclear phrasing or structural issues, supporting a more objective review process. The use of a single, consistent device across reading and writing preparation supports smoother transitions between tasks and reduces the cognitive demand associated with switching tools.

Note-taking in Lectures and Seminars

- Note-taking can be difficult where concentration, processing speed, or motivation is impacted. Students may struggle to listen, process, and record information simultaneously, particularly in fast-paced environments.
- The Scanmarker Max supports note-taking by enabling students to scan key information from printed materials such as handouts or slides, reducing reliance on real-time note-taking. Captured content can be saved and revisited later, supporting consolidation and reducing pressure during lectures. The built-in audio recording and transcription features also allow students to capture brief ideas or reflections without needing sustained writing, which can be beneficial during periods of fatigue or low motivation.
- Using a single, portable device supports continuity between lectures, independent study, and revision, reducing the need to engage with multiple systems or tools.

Access to and use of technology

- Students with mental health conditions may find complex digital systems overwhelming, particularly where tasks involve multiple steps, switching between applications, or managing logins and interfaces. This can act as a barrier to initiating and sustaining study.
- The Scanmarker Max provides a simple, self-contained solution that reduces reliance on multiple technologies. By combining scanning, reading, recording, transcription, and export functions in one device, it simplifies workflows and reduces cognitive and emotional load. The ability to use the device independently of internet access or additional software supports flexible engagement, particularly during periods of low

mood or heightened anxiety.

- While built-in accessibility features are available across standard devices, they typically rely on digital text and fragmented workflows. In contrast, the Scanmarker Max offers a consistent, predictable approach that supports independence and reduces barriers to engagement.
- As the Scanmarker Max offers a single, integrated device rather than requiring students to manage multiple tools or software platforms. This simplifies organisation, reduces task-switching, and lowers anxiety associated with complex digital systems. When required, scanned text can be easily transferred to a computer via USB and used with familiar word-processing or assistive software, providing continuity between portable and desktop study without introducing additional interfaces.
- A key advantage of the Scanmarker Max is that it enables students to use the same device consistently across a range of academic activities and environments, including reading, note-taking, research, and practical sessions. This continuity supports routine and predictability, reducing the cognitive effort associated with adapting to different tools or systems. It also supports smoother transitions between tasks, as information can be captured, stored, and reused within the same device and workflow.
- While standard built-in accessibility features are available across operating systems (e.g. Windows, macOS, iOS, Android) and applications, these typically rely on digital text and require interaction across multiple tools. They do not provide the same level of integration or support for printed materials, and may increase cognitive load due to fragmented workflows. The Scanmarker Max offers a more consistent and accessible approach, supporting independence, reducing complexity, and enabling students to engage more effectively with technology in a way that aligns with their need for routine and structure

Practical Sessions, Placements, Field Trips and Additional Course Activities

- Practical environments can be particularly challenging where there is unpredictability, time pressure, or increased social and sensory demand. Anxiety and reduced concentration may impact the ability to follow instructions or engage confidently in these settings.
- The Scanmarker Max supports participation by enabling students to scan and listen to printed instructions or reference materials in real time. This allows students to process information at their own pace, reducing pressure and supporting understanding. The device's portability and offline functionality make it suitable for use in a wide range of environments, including placements and fieldwork.
- Using the same device across different teaching environments supports continuity and reduces anxiety associated with adapting to new tools or systems. The ability to use headphones also enables discreet access to support, helping students engage without drawing attention in shared or unfamiliar environments.

Examinations and Timed Assessments

- Students with mental health conditions may experience increased anxiety, reduced concentration, and difficulty processing information under timed conditions, in the build up to examinations. This can be a stressful time, exacerbating underlying symptoms. Preparation for examinations can also be impacted by difficulties engaging with large volumes of revision material. The **Scanmarker Max** supports revision by enabling students to convert printed materials into accessible formats, listen to content in a structured and low-pressure way, and review key information at their own pace. This can support retention, reduce overwhelm, and promote more consistent engagement with revision tasks.
- While the device may offer potential support within examinations, this would be subject to approval by the relevant university or college and must align with institutional regulations and assessment guidance. There is a function lock using a PIN which can restrict access to features during exams and wired USB-C earphones can be used to listen to scanned text.

3. Long-term Illnesses / Medical Condition

Research and Reading

- Reading can be particularly demanding where fatigue, pain, or cognitive symptoms such as brain fog are present. Sustained visual effort and the physical handling of printed materials can reduce engagement and lead to avoidance or incomplete reading tasks. The **Scanmarker Max** supports reading and research by enabling students to scan and listen to printed text in real time, reducing both physical and cognitive effort. Integrated features including OCR, text-to-speech, translation, dictionary access, audio recording, transcription, USB export, and Bluetooth connectivity allow students to access material in flexible formats. The ability to process text line by line and adjust playback speed supports paced engagement, while using headphones enables distraction-reduced listening and improved concentration.
- As a lightweight and portable device, the Scanmarker Max allows students to access reading materials in different teaching and learning environments, without needing to carry heavy books or additional equipment. Its standalone, offline functionality supports flexible study in short, manageable sessions when energy permits. In contrast, built-in text-to-speech tools on Windows, macOS, iOS, or Android rely on digital text and often require multiple steps or devices, increasing effort and limiting accessibility to printed materials
- As a fully integrated device (scan, read, translate, record, transcribe, and export), the Scanmarker Max provides a single, consistent tool that can be used across reading and research tasks. It can also be connected to a phone, tablet, or computer where required, with scanned text sent via Bluetooth or a wired connection for use within familiar applications. This supports continuity between portable and desktop study without introducing additional complexity. Over time, students can build a personalised library of scanned materials, reducing the need to repeatedly access or re-scan content and supporting more efficient revision and ongoing study.

Writing and Reviewing Academic Work

- Difficulty initiating and sustaining writing tasks due to fatigue, reduced concentration, or physical discomfort when typing or writing can bring challenges. The transition from reading and research into writing can also be challenging where energy levels fluctuate. The **Scanmarker Max** supports writing preparation by allowing students to scan key research material, quotes, and passages directly from printed sources and export them as editable text into familiar platforms such as Word or Google Docs. This reduces the need for manual transcription and supports energy conservation. Listening back to scanned content can support understanding and organisation of ideas prior to writing.
- For reviewing work, students can re-scan printed drafts and listen to them read aloud,

supporting proofreading and identification of unclear phrasing or structural issues. Using a single device across reading and writing tasks reduces the need to switch between tools, supporting continuity and reducing cognitive and physical demand.

- As a fully integrated pen device, the Scanmarker Max allows students to use a single, consistent tool across reading, research, and writing preparation. This supports routine and predictability, which can be particularly beneficial where symptom fluctuate. It also enables smoother transitions between tasks, as information can be captured, organised, and reused within the same workflow. By reducing the number of steps and tools required, the device helps to minimise cognitive overload, reduce anxiety, and support more independent and effective engagement with academic writing tasks.
- The Scanmarker Max can also support the reviewing and proofreading process. This auditory feedback supports a more objective review process and can be particularly beneficial where students find it tiring to evaluate their own work. The ability to revisit content in a consistent format further supports clarity, confidence, and accuracy in the final submission.

Note-taking in Lectures and Seminars

- Note-taking can be difficult where fatigue, pain, or cognitive symptoms impact the ability to write, type, or process information in real time. Sustained effort during lectures may not be manageable, particularly over longer sessions. The **Scanmarker Max** supports note-taking by enabling students to scan key information from printed materials such as lecture handouts or slides, reducing reliance on manual note-taking. Captured content can be saved and revisited later, supporting consolidation without requiring sustained effort during lectures. The built-in audio recording and transcription features provide alternative ways to capture key ideas, reducing physical strain.
- The portability of the device allows it to be used easily within lecture environments without the need for additional equipment, supporting a more manageable and energy-efficient approach to note-taking.
- As a fully integrated, standalone device, the Scanmarker Max enables students to use a single, consistent tool across note-taking, reading, and review tasks. This supports routine and predictability, which can be particularly beneficial for students with low energy. It also supports smoother transitions between tasks, as captured information can be revisited, organised, and exported within the same workflow. Overall, this reduces cognitive demand, supports organisation, and improves engagement and retention.

Access to and use of technology

- Students with long-term conditions may find it difficult to manage complex or multi-step digital systems, particularly where fatigue or cognitive symptoms affect concentration and task completion. Switching between multiple devices or applications can increase effort and reduce efficiency. The **Scanmarker Max** provides a single,

integrated solution that combines scanning, reading, recording, transcription, and export functions within one device. This reduces the need to manage multiple systems and simplifies workflows. Its plug-and-play functionality and offline operation remove reliance on internet access, logins, or complex setup processes.

- Compared to built-in accessibility tools on standard devices, which are often fragmented and limited to digital text, the Scanmarker Max offers a more accessible and efficient approach. It supports continuity of use across environments and enables students to engage with academic tasks in a way that is manageable and sustainable.

Practical Sessions, Placements, Field Trips and Additional Course Activities

- Practical and field-based environments can be physically and cognitively demanding, particularly where tasks require movement, sustained concentration, or rapid processing of information. Managing printed materials in these settings can add to fatigue and reduce participation. The **Scanmarker Max** supports engagement by allowing students to scan and listen to instructions, manuals, or reference materials in real time, reducing the need for physical handling or repeated reading. Its lightweight, portable design and offline functionality make it suitable for use across a wide range of environments, including placements and fieldwork.

- Using the same device across different settings supports continuity and reduces the effort required to adapt to different tools. This helps conserve energy, reduce cognitive load, and support more consistent participation in practical activities.

Examinations and Timed Assessments

- Students with long-term conditions may experience increased fatigue, reduced concentration, and difficulty sustaining effort during examination preparation. Managing large volumes of revision material can be particularly challenging. The **Scanmarker Max** supports revision by enabling students to convert printed materials into accessible audio and digital formats, allowing flexible and paced engagement with content. The ability to revisit saved materials reduces the need for repeated effort and supports retention over time.

- While the device may offer potential support within examination settings, this would be subject to approval by the relevant university or college and must align with institutional regulations and assessment guidance. There is a function lock using a PIN which can restrict access to features during exams and wired USB-C earphones can be used to listen to scanned text.

4. Sensory Impairments (Vision Loss / Low Vision / Hearing Loss)

Research and Reading

Visual Impairment/Low Vision

- Students with visual difficulties, low vision, vision loss, or visual stress (where funding is appropriate) may experience significant difficulty accessing printed books, handouts, worksheets, and library materials. Barriers can include reduced visual acuity, eye strain, sensitivity to contrast, and difficulty tracking lines of text, often leading to loss of place, fatigue, and reduced comprehension. Sustained reading from standard print can therefore be slow and effortful, impacting overall study progress.
- The **Scanmarker Max** supports reading and research through integrated features including high-accuracy OCR (Optical Character Recognition), text-to-speech, translation, dictionary access, audio recording, transcription, USB export, and Bluetooth connectivity. Printed text can be converted instantly into spoken and/or digital formats, reducing reliance on visual processing and supporting access to materials that would otherwise be difficult to read. Adjustable playback speed and line-by-line reading enable students to process content at an individual pace, reducing visual strain and supporting comprehension.
- Using headphones with the Scanmarker Max enables students to access text through focused audio in a distraction-reduced way, supporting concentration while minimising visual fatigue. This also allows for discreet use in shared environments such as libraries or lecture spaces.
- As a fully integrated pen device (scan, read, translate, record, transcribe, and export), the Scanmarker Max enables students to use a single, consistent tool across reading, research, and study tasks. Scanned content can also be transferred to a computer via USB or Bluetooth and accessed using other assistive technologies such as screen readers or magnification software. Over time, students can build a personalised library of scanned materials, reducing the need to repeatedly access or re-scan content and supporting efficient revision and ongoing study.
- As a lightweight, portable, and standalone device, the Scanmarker Max allows students to access printed materials whenever and wherever needed, without reliance on internet access or complex software. In contrast, built-in accessibility tools on Windows, macOS, iOS, or Android are typically limited to digital text and require multiple steps or platforms, making them less effective for accessing printed academic materials.

Hearing Impairment / Hearing Loss

- Students with hearing impairment may experience difficulties with phonological awareness, pronunciation, and understanding unfamiliar academic vocabulary, particularly in language-based subjects, technical disciplines, or placement settings where accurate interpretation of terminology is required. This can impact confidence and comprehension when engaging with new or complex material.
- The **Scanmarker Max** supports reading and research through integrated features

including OCR, text-to-speech, translation, dictionary access, phonetic support, audio recording, transcription, USB export, and Bluetooth connectivity. Printed text can be converted into structured visual and auditory formats, enabling students to access and process information more effectively. The phonetic display and pronunciation features support decoding and articulation of unfamiliar words, while dictionary and translation tools aid comprehension of academic language. While phonics is not typically a primary learning route for deaf learners, it can provide supplementary support for understanding pronunciation patterns in written English, particularly for students with partial hearing, cochlear implants, or late-acquired hearing loss. The combination of visual text, phonetic representation, and audio output also supports visual reinforcement of language, which may complement strategies such as lip-reading and aid understanding of how words are formed and used.

- Using headphones with the Scanmarker Max enables students to access audio output in a controlled and distraction-reduced way, supporting focus and allowing for private engagement with material in shared environments. The use of natural-sounding voices also supports pronunciation and reinforces language development.

- As a fully integrated pen device (scan, read, translate, record, transcribe, and export), the Scanmarker Max provides a single, consistent tool that supports reading, vocabulary development, and research tasks. Scanned materials can be exported to a computer via USB or Bluetooth for further use within familiar applications. Over time, students can build a personalised library of scanned content, supporting repeated exposure to key terminology and aiding retention.

- As a standalone device, the Scanmarker Max allows students to access printed materials whenever and wherever needed, without reliance on internet access or multiple software platforms. In contrast, built-in tools on Windows, macOS, iOS, or Android are limited to digital text and often require multiple steps or applications, which can increase cognitive load and limit accessibility to printed resources.

Writing and Reviewing Academic Work

Visual Impairment/Low Vision

- Students with visual impairment or low vision may experience difficulty reading back their own work, identifying errors, and reviewing structure due to visual fatigue, reduced clarity, or difficulty tracking text on screen or paper. Sustained proofreading can be particularly demanding and may impact accuracy and confidence in written work.

- The Scanmarker Max supports writing preparation by enabling students to scan printed research materials and export them as editable text into familiar platforms such as Word or Google Docs, reducing the need for visual copying or manual transcription. For reviewing, printed drafts or notes can be re-scanned and listened to using text-to-speech, supporting identification of errors, unclear phrasing, or structural issues through auditory feedback.

- Using a single, integrated device across reading and writing tasks supports continuity and reduces the need to switch between tools. Scanned materials can also be used alongside other assistive technologies (e.g. screen readers or magnification software), supporting a flexible and accessible workflow. In contrast, built-in tools are typically limited to digital text and do not provide an effective solution for reviewing printed materials.

Hearing Impairment / Hearing Loss

- Students with hearing loss may experience difficulties with written language, particularly where phonological awareness, grammar, or sentence structure are impacted. This can affect clarity, accuracy, and confidence when producing and reviewing academic work. The **Scanmarker Max** supports writing preparation by enabling students to scan and capture research material directly from printed sources and export it as editable text into familiar applications. This supports organisation and reduces the need for manual transcription. The phonetic and pronunciation features support understanding of how words are structured and used within context, aiding vocabulary development. While phonics is not typically a primary learning route for deaf learners, it may provide supplementary support for some students in recognising pronunciation patterns and strengthening connections between written and spoken language. The combination of visual text, phonetic cues, and audio output also provides additional reinforcement, supporting understanding alongside strategies such as lip-reading.
- For reviewing, students can re-scan printed drafts and listen to text read aloud using natural-sounding voices, supporting identification of errors, awkward phrasing, or missing words. This auditory reinforcement can support language development and improve overall clarity of written work.
- Using a single device across reading and writing tasks supports continuity and reduces the complexity of managing multiple tools, which can support more independent and efficient working.

Note-taking in Lectures and Seminars

Visual Impairment/Low Vision

- Students with visual difficulties may find it challenging to read lecture slides, follow handouts, and take notes simultaneously. Difficulties with visual tracking and processing can impact the ability to capture key information in real time. The **Scanmarker Max** supports note-taking by enabling students to scan key information from printed lecture materials and convert it into audio or digital text. This reduces reliance on visual reading and allows students to access content in a more manageable format. Captured content can be saved and revisited later, supporting consolidation without the need for sustained visual effort during lectures.
- In addition, the voice memo feature allows students to record brief spoken notes or reflections during or after teaching sessions without the need for writing or typing. This provides an alternative, low-effort method of capturing information, which can be particularly beneficial where visual fatigue or strain limits note-taking capacity. These recordings can be replayed later to reinforce understanding and support organisation

of ideas.

- The device's portability and standalone functionality allow it to be used easily within lecture environments without requiring additional equipment. Using headphones supports discreet listening and reduces visual strain. This provides a more accessible and energy-efficient approach compared to relying on standard digital tools alone.

Hearing Impairment / Hearing Loss

- Students with hearing impairment may experience difficulty following spoken information in lectures, particularly where delivery is rapid or includes unfamiliar terminology. This can impact the ability to take accurate and complete notes. The **Scanmarker Max** supports note-taking by enabling students to scan key information from printed materials such as lecture handouts or slides, ensuring access to accurate visual content without relying solely on auditory input. Captured text can be saved, revisited, and exported for further use, supporting consolidation of learning. The phonetic display and pronunciation features further support understanding of subject-specific vocabulary, while the combination of visual text and audio output provides reinforcement that may complement lip-reading strategies.
- Using headphones allows for controlled audio access where beneficial, while maintaining a discreet approach in shared environments. The use of a single, portable device supports continuity across lectures and independent study.

Access to and use of technology

Visual Impairment/Low Vision

- Students with visual impairment or low vision may experience difficulty accessing and using standard digital technologies, particularly where interfaces are visually complex, require sustained screen use, or involve navigating multiple applications. Visual fatigue, reduced clarity, and difficulty tracking information on screen can increase cognitive load and impact efficiency when completing academic tasks. The **Scanmarker Max** supports access to technology by providing a simple, standalone solution that reduces reliance on visually demanding interfaces. By enabling printed text to be scanned and converted into audio and/or digital formats, the device reduces the need for prolonged screen use and supports access to information in a more manageable way. Scanned content can be transferred via USB or Bluetooth to a computer and used alongside other assistive technologies such as screen readers or magnification software, supporting a flexible and accessible workflow.
- As a fully integrated device (scan, read, translate, record, transcribe, and export), the Scanmarker Max allows students to use a single, consistent tool across reading, note-taking, and study tasks. This continuity reduces the need to switch between multiple systems and supports a more predictable and efficient approach to technology use. Over time, students can build a personalised library of accessible materials, further reducing reliance on repeated visual processing.
- As a portable and offline device, it can be used across a range of environments without reliance on internet access or complex setup processes. In contrast, built-in

accessibility tools on Windows, macOS, iOS, or Android often require interaction across multiple platforms and are typically limited to digital text, making them less effective for accessing printed materials. The Scanmarker Max provides a more accessible and streamlined solution, supporting independence and reducing barriers to engagement.

Hearing Impairment / Hearing Loss

- Students with hearing impairment may experience challenges when using technology that relies on auditory input, rapid spoken information, or complex digital workflows. Difficulties with language processing, unfamiliar terminology, and navigating multiple systems can increase cognitive load and impact confidence when engaging with academic technologies. The **Scanmarker Max** supports access to technology by providing a clear, structured, and integrated approach to accessing printed information. Through features including OCR, text-to-speech, translation, dictionary access, phonetic support, audio recording, transcription, USB export, and Bluetooth connectivity, the device enables students to convert printed materials into accessible visual and/or auditory formats. This supports understanding of academic content and reduces reliance on spoken input alone.
- The combination of visual text, phonetic representation, and audio output provides reinforcement of language, supporting comprehension and vocabulary development. This may complement strategies such as lip-reading and support students who benefit from visual reinforcement of language patterns. The ability to use headphones allows for controlled and discreet audio access where beneficial.
- As a fully integrated pen device, the Scanmarker Max allows students to use a single, consistent tool across multiple academic tasks, reducing the need to manage different applications or systems. This supports continuity and reduces the complexity of technology use. Scanned content can be easily transferred to a computer via USB or Bluetooth, allowing integration with familiar platforms.
- As a standalone device, it can be used without reliance on internet access or multiple applications, supporting flexibility across environments. In contrast, built-in tools on Windows, macOS, iOS, or Android are often limited to digital text and require interaction across multiple platforms, which can increase cognitive load and reduce accessibility. The Scanmarker Max provides a more streamlined and accessible approach, supporting independence and effective engagement with technology.

Practical Sessions, Placements, Field Trips and Additional Course Activities

Visual Impairment/Low Vision

- Students with visual impairment or low vision may experience increased difficulty in practical sessions where information is presented visually, instructions are provided in printed formats, or tasks require rapid interpretation of written materials. Challenges with visual tracking, reduced clarity, and environmental factors such as lighting or positioning can make it difficult to access instructions, follow procedures, and record information in real time. The **Scanmarker Max** supports participation in practical sessions by enabling students to scan and listen to printed instructions, labels,

manuals, or reference materials in real time. This reduces reliance on visual interpretation and allows information to be processed at an individual pace, supporting accuracy and confidence when completing tasks.

- The voice memo feature provides an additional method of capturing information during practical activities. Students can record brief spoken notes, instructions, or observations without needing to write or rely on visual input. This is particularly beneficial in situations where handling materials, equipment, or positioning makes traditional note-taking impractical. Recorded memos can be replayed later to support recall, reflection, and completion of associated written work.

- As a portable and standalone device, the Scanmarker Max can be used across a range of environments including laboratories, workshops, placements, and fieldwork settings, without reliance on internet access or additional equipment. This supports continuity of access and enables students to use the same familiar tool across different contexts. Using headphones also allows for discreet listening in shared environments, reducing visual strain and supporting concentration.

- Overall, the Scanmarker Max provides a practical, low-effort solution that reduces visual demand, supports real-time access to information, and enables more independent participation in practical and applied learning environments.

Hearing Impairment / Hearing Loss

- Students with hearing loss may experience challenges in practical or group-based environments where instructions are delivered verbally or where rapid communication is required. This can impact confidence and participation.

- The Scanmarker Max supports engagement by enabling students to scan printed instructions, technical materials, or key information and access them in clear visual and/or auditory formats. Translation and phonetic features further support understanding of specialised terminology. The combination of visual text, phonetic cues, and audio output provides reinforcement of language, supporting understanding where lip-reading or visual processing strategies are used.

- As a standalone and portable device, it can be used consistently across environments including placements, laboratories, and fieldwork, supporting continuity and independence. The ability to save and revisit information reduces reliance on real-time verbal communication and supports more confident participation.

Examinations and Timed Assessments

Visual Impairment/Low Vision

- Students with visual impairment or low vision may experience difficulties engaging with large volumes of revision material, particularly where sustained visual reading leads to fatigue, reduced concentration, and slower processing. Reviewing content from lectures, practical sessions, and independent study can therefore be time-consuming and effortful. The **Scanmarker Max** supports revision by enabling students to convert printed materials, notes, and resources into accessible audio and digital formats. Content captured from lectures, handouts, and practical sessions can be saved and revisited, allowing students to listen back to key information rather than

relying solely on visual review. This reduces visual strain and supports more efficient consolidation of learning.

- The voice memo feature further enhances revision by allowing students to record key points, summaries, or reflections during teaching sessions, which can then be replayed during revision periods. This supports recall and enables students to revisit information in a manageable, low-effort format.
- Using headphones allows students to engage with revision material in a focused, distraction-reduced way, supporting concentration and enabling study in a variety of environments. As a standalone device, the Scanmarker Max allows students to access revision materials whenever and wherever needed, supporting flexible and paced study.
- While the device may offer potential support within examinations, this would be subject to approval by the relevant university or college and must align with institutional regulations and assessment guidance.There is a function lock using a PIN which can restrict access to features during exams and wired USB-C earphones can be used to listen to scanned text.

Hearing Impairment / Hearing Loss

- Students with hearing impairment may experience difficulties consolidating and revising academic material, particularly where understanding and retention of subject-specific vocabulary and language is required. Reviewing information presented across lectures, practical sessions, and independent study may require repeated exposure and reinforcement. The **Scanmarker Max** supports revision by enabling students to convert printed materials and notes into accessible visual and auditory formats. Content captured from lectures, handouts, and practical sessions can be saved and revisited, allowing students to listen back to and review key concepts in a structured way. The phonetic and pronunciation features support reinforcement of unfamiliar vocabulary, aiding retention and understanding over time. While phonics is not typically a primary learning route for deaf learners, it may provide supplementary support for recognising pronunciation patterns, particularly for students with partial or acquired hearing loss.

- The voice memo feature allows students to record key explanations, summaries, or reflections during lectures or practical sessions, which can then be replayed during revision. This supports repeated exposure to important concepts and reduces reliance on real-time note-taking. The combination of visual text, phonetic cues, and audio output provides reinforcement of language, which may complement strategies such as lip-reading.

- Using headphones enables controlled and distraction-reduced listening, supporting focus and allowing students to engage with revision material privately in shared environments. As a standalone device, the Scanmarker Max allows flexible access to revision materials across settings, supporting continuity of study.

- While the device may offer potential support within examinations, this would be subject to approval by the relevant university or college and must align with institutional regulations and assessment guidance.

5. Physical/Mobility Disabilities

Research and Reading

- Reading can be particularly demanding where fatigue, pain, or reduced physical stamina are present. Holding books, managing printed materials, or sustaining attention to dense text can lead to exhaustion and reduced engagement. The **Scanmarker Max** supports reading and research by enabling students to scan and listen to printed text in real time, reducing both physical and cognitive effort. Integrated features including OCR, text-to-speech, translation, dictionary access, audio recording, transcription, USB export, and Bluetooth connectivity allow students to access material in flexible formats without the need for typing or prolonged handling of materials. The ability to process text line by line and adjust playback speed supports a paced and manageable approach.
- Using headphones enables focused, distraction-reduced listening, supporting concentration while minimising effort. As a lightweight and portable device, the Scanmarker Max can be used across all learning environments without the need to carry heavy books or additional equipment. Over time, students can build a personalised library of scanned materials, reducing the need to repeatedly access or re-handle physical resources.
- As a standalone, dedicated device, it offers clear advantages over built-in text-to-speech tools on Windows, macOS, iOS, or Android, which are typically limited to digital text and require multiple steps, applications, or physical interaction with devices. The Scanmarker Max provides a simple, direct method of accessing printed materials with minimal effort, supporting independence and sustained engagement.

Writing and Reviewing Academic Work

- Students may experience difficulty with writing tasks due to pain, fatigue, or reduced dexterity, making typing or handwriting challenging. The transition from reading and research into writing may also require additional effort and coordination. The **Scanmarker Max** supports writing preparation by enabling students to scan and capture key research material directly from printed sources and export it as editable text into familiar applications such as Word or Google Docs. This reduces the need for manual transcription and supports energy conservation.
- For reviewing work, printed drafts can be re-scanned and listened to using text-to-speech, supporting identification of errors, unclear phrasing, or structural issues without requiring prolonged visual or physical effort. This auditory approach supports a more manageable and less physically demanding proofreading process.
- Using a single, integrated device across reading and writing tasks supports continuity and reduces the need to manage multiple tools or systems, lowering both physical and

cognitive demand.

- The voice memo feature can support writing and reviewing academic work by allowing students to capture ideas, structure, and reflections verbally without the need for typing or handwriting. This can be particularly beneficial where there are difficulties with the mechanics or writing or typing, organising thoughts, or sustaining effort. During the reviewing process, voice memos can be used to reflect on draft content, identify areas for improvement, or summarise sections of work, supporting a more structured and manageable approach to editing. This reduces cognitive and physical demand while supporting clarity, organisation, and confidence in the final written output.

Note-taking in Lectures and Seminars

- Note-taking can be particularly difficult where handwriting or typing is physically demanding or where fatigue limits sustained effort. Capturing information in real time may not be consistently achievable. The **Scanmarker Max** supports note-taking by enabling students to scan key information from printed lecture materials, reducing reliance on manual note-taking. Captured content can be saved and revisited later, supporting consolidation without requiring sustained physical effort during sessions.
- The voice memo feature provides an alternative method of capturing information, allowing students to record brief spoken notes, ideas, or reflections without the need for writing or typing. This is particularly beneficial where fatigue or pain limits note-taking capacity. These recordings can be replayed later to support understanding and organisation.
- The device's portability and ease of use allow it to be used effectively within lecture environments without additional equipment, supporting a more accessible and energy-efficient approach.

Access to and use of technology

- Students may experience difficulty using complex digital systems, particularly where tasks require multiple steps, fine motor control, or switching between applications. Managing devices, touchscreens, or software interfaces can increase effort and reduce efficiency. The **Scanmarker Max** provides a simple, self-contained solution that reduces reliance on complex technology. Its ergonomic design requires minimal grip pressure and can be used with either hand, supporting a range of physical needs. The plug-and-play USB export function allows files to be transferred easily without complex setup, reducing barriers associated with multi-step digital processes.
- As a fully integrated device (scan, read, translate, record, transcribe, and export), it enables students to use a single, consistent tool across all study tasks. This reduces the need to manage multiple systems and supports a more predictable workflow.
- In contrast, built-in tools on Windows, macOS, iOS, or Android often require interaction across multiple applications and are limited to digital text, increasing cognitive and physical demand. The Scanmarker Max provides a more accessible, efficient, and low-effort approach, supporting independence and sustained

engagement with technology.

Practical Sessions, Placements, Field Trips and Additional Course Activities

- Practical environments can present additional challenges where physical effort, movement, or handling materials is required. Fatigue, pain, or reduced coordination may impact the ability to access instructions, record information, or engage consistently in activities. The **Scanmarker Max** supports participation by enabling students to scan and listen to printed instructions, manuals, or reference materials in real time, reducing the need for physical handling or repeated reading. This supports understanding while conserving energy.

- The voice memo feature allows students to record key instructions, observations, or reflections during practical activities without needing to write. This is particularly useful where handling equipment or positioning makes traditional note-taking difficult. Recorded content can be revisited later to support recall and completion of associated tasks.

- As a lightweight, portable, and standalone device, the Scanmarker Max can be used across all environments including laboratories, placements, and fieldwork. This supports continuity and reduces the need to adapt to different tools, helping to conserve energy and reduce cognitive load.

Examinations and Timed Assessments

- Students with physical or mobility disabilities, unseen disabilities, or long-term health conditions may experience fatigue, pain, reduced dexterity, and fluctuating concentration, which can significantly impact engagement with revision tasks. Reviewing large volumes of material from lectures, practical sessions, and independent study may be physically demanding, particularly where sustained reading, typing, or handling of materials is required. Fatigue and reduced stamina can limit the ability to revisit content multiple times, impacting consolidation and confidence in preparation for assessments. The **Scanmarker Max** supports revision by enabling students to convert printed materials, notes, and resources into accessible audio and digital formats with minimal physical effort. Content captured from lectures, handouts, and practical sessions can be saved and revisited, allowing students to listen back to key information rather than relying on repeated visual reading or manual handling of materials. This supports a more energy-efficient approach to revision and helps to reduce physical strain.

- The voice memo feature further enhances revision by allowing students to record key points, summaries, or reflections during teaching sessions, which can then be replayed as part of revision. This reduces the need for sustained note-taking and supports recall by enabling students to revisit information in a manageable, low-effort format. Listening back to recorded and scanned content supports consolidation of learning across different teaching contexts.

- As a lightweight, ergonomic, and portable device, the Scanmarker Max can be used across all learning environments, including lectures, libraries, practical sessions, and

home study, without the need for additional equipment. Its standalone, offline functionality supports flexible study in short sessions, allowing students to work around fluctuating symptoms and energy levels. Using headphones enables distraction-reduced listening and supports concentration while minimising physical effort.

- As a dedicated, single-purpose assistive device, the Scanmarker Max offers clear advantages over built-in text-to-speech tools available on Windows, macOS, iOS, or Android devices. Built-in tools are typically limited to digital text, require multiple steps, and often involve switching between applications or managing touchscreens and interfaces, which may be difficult for students with reduced dexterity or coordination. In contrast, the Scanmarker Max provides a simple, direct, and consistent method of accessing printed materials without complex setup or physical strain.

- Crucially, the device supports independent access to learning materials by reducing reliance on others to scan, format, or read printed content. This promotes autonomy, reduces physical and cognitive burden, and enables students to engage with revision tasks more consistently and effectively in preparation for examinations.

6. Autistic Spectrum Conditions (ASC)/Communication & Interaction

Research and Reading

- Students with Autism Spectrum Condition (ASC) may experience difficulties processing complex or abstract language, managing sensory sensitivities, and sustaining attention when engaging with academic reading. Dense printed materials and unfamiliar formats can increase cognitive load and contribute to overwhelm. In addition, changes in tools, formats, or workflows can disrupt routine and increase anxiety, particularly where consistency and predictability are important for effective engagement. Difficulties with executive functioning may also impact the ability to transition between tasks, such as moving from reading to note-taking or from research to written work.
- The Scanmarker Max supports reading by allowing students to scan and listen to printed text in real time using text-to-speech, supporting comprehension through both visual and auditory input. The line-by-line reading approach enables controlled pacing, helping students to process information in manageable sections. The built-in dictionary and translation tools support understanding of unfamiliar terminology, while adjustable playback speeds allow for individualised processing.
- Use of Bluetooth headphones with the Scanmarker Max makes it possible to listen to text discreetly, reducing sensory distractions from the surrounding environment. This supports concentration and focus by creating a more controlled and predictable auditory experience, which can be particularly beneficial where sensory sensitivity or environmental overwhelm is present.
- As a fully integrated pen device (scan, read, translate, record, transcribe, and export), the Scanmarker Max enables students to use a single, consistent tool across a range of academic activities, including reading, research, note-taking, and preparation for written work. This consistency reduces the need to switch between multiple tools or systems, supporting routine and predictability. It also supports smoother transitions between tasks, as information can be captured, revisited, and reused within the same device and workflow. By providing a familiar and reliable method of accessing and managing information, the device helps to reduce cognitive load, minimise anxiety, and support more sustained and independent engagement with academic material.

Writing and Reviewing Academic Work

- Students with Autism Spectrum Condition (ASC) may experience difficulties with interpreting assignment briefs, particularly where language is abstract, ambiguous, or open to multiple interpretations. Literal thinking and differences in language processing can make it challenging to identify key directive words (e.g. “analyse”, “evaluate”, “compare”) and understand what is required. In addition, difficulties with executive functioning can impact planning, structuring ideas, and transitioning from reading and research tasks into written work.
- The Scanmarker Max supports these challenges by enabling students to scan and

listen to assignment briefs or printed guidance in real time. Hearing text read aloud while visually tracking it can support comprehension, helping to break down complex language into manageable sections and reduce the risk of misinterpretation. The ability to re-scan and re-listen to key parts of a brief supports clarity and reinforces understanding, particularly where repeated processing is needed.

- The Scanmarker Max supports writing preparation by helping to break down complex language into manageable sections. Key research material, quotes, and relevant passages can be scanned, saved, and exported as editable text into familiar applications such as Word or Google Docs. This supports organisation and reduces the need to reprocess information manually. The ability to revisit and re-listen to captured content also supports the reviewing process, helping students identify unclear phrasing or gaps in structure through auditory feedback.

- The device also supports the transition from reading to writing by allowing students to capture key research material, quotes, and relevant passages directly from printed sources. These can be saved, revisited, and exported as editable text into platforms such as Word or Google Docs, supporting the organisation and development of written work. This reduces the need to manually retype or reprocess information, lowering cognitive load and supporting a more structured approach to writing.

- As a fully integrated pen device, the Scanmarker Max allows students to use a single, consistent tool across reading, research, and writing preparation. This supports routine and predictability, which can be particularly beneficial for students with ASC. It also enables smoother transitions between tasks, as information can be captured, organised, and reused within the same workflow. By reducing the number of steps and tools required, the device helps to minimise cognitive overload, reduce anxiety, and support more independent and effective engagement with academic writing tasks.

- The Scanmarker Max can also support the reviewing and proofreading process. Students can re-scan printed drafts or notes and listen to them read aloud, which can help identify unclear phrasing, missing words, or issues with structure that may not be easily recognised through visual review alone. This auditory feedback supports a more objective review process and can be particularly beneficial where students find it difficult to evaluate their own work. The ability to revisit content in a consistent format further supports clarity, confidence, and accuracy in the final submission. Using the pen again adds consistency to routine.

Note-taking in Lectures and Seminars

- Where there are difficulties with processing information in real time, sustaining attention, and managing multiple demands simultaneously, note-taking can prove challenging. Students may find it difficult to listen, interpret, and record information at the same time, particularly in fast-paced lectures. Difficulties with executive functioning can also impact the ability to identify key information, organise notes effectively, and transition between listening, reading, and writing tasks.

- The **Scanmarker Max** can support note-taking by enabling students to scan and listen to printed lecture materials, such as handouts or slides, in real time. This reduces reliance on simultaneous listening and writing, allowing students to focus on understanding content. Key information can be scanned and saved for later review, supporting retention and reducing the impact of working memory difficulties.

- The device also supports flexible note capture through its built-in audio recording and

transcription features, allowing students to record brief verbal notes or reflections without the need for sustained writing. This can reduce cognitive load during lectures and provide an alternative method of capturing information where processing or attention is impacted.

- As a fully integrated, standalone device, the Scanmarker Max enables students to use a single, consistent tool across note-taking, reading, and review tasks. This supports routine and predictability, which can be particularly beneficial for students with ASC. It also supports smoother transitions between tasks, as captured information can be revisited, organised, and exported within the same workflow. Overall, this reduces cognitive demand, supports organisation, and improves engagement and retention.

Access to and use of technology

- Students with Autism Spectrum Condition (ASC) may experience difficulties accessing and using technology, particularly where tasks involve multiple steps, switching between applications, or navigating different systems. Differences in executive functioning, processing, and attention can make complex or inconsistent digital workflows challenging to manage. Changes in tools or environments can also disrupt routine and increase anxiety, particularly where predictability and consistency are important for effective engagement. The **Scanmarker Max** supports access to technology by providing a fully integrated, standalone solution that combines scanning, reading, translation, audio recording, transcription, and export functions within a single device. This reduces the need to use multiple applications or platforms and supports a more streamlined and manageable workflow. The device can operate independently or connect to a phone, tablet, or computer via Bluetooth or USB, allowing flexibility while maintaining simplicity of use.

- As the Scanmarker Max offers a single, integrated device rather than requiring students to manage multiple tools or software platforms. This simplifies organisation, reduces task-switching, and lowers anxiety associated with complex digital systems. When required, scanned text can be easily transferred to a computer via USB and used with familiar word-processing or assistive software, providing continuity between portable and desktop study without introducing additional interfaces.

- A key advantage of the Scanmarker Max is that it enables students to use the same device consistently across a range of academic activities and environments, including reading, note-taking, research, and practical sessions. This continuity supports routine and predictability, reducing the cognitive effort associated with adapting to different tools or systems. It also supports smoother transitions between tasks, as information can be captured, stored, and reused within the same device and workflow.

- While standard built-in accessibility features are available across operating systems (e.g. Windows, macOS, iOS, Android) and applications, these typically rely on digital text and require interaction across multiple tools. They do not provide the same level of integration or support for printed materials, and may increase cognitive load due to fragmented workflows. The Scanmarker Max offers a more consistent and accessible approach, supporting independence, reducing complexity, and enabling students to engage more effectively with technology in a way that aligns with their need for routine and structure

Practical Sessions, Placements, Field Trips and Additional Course Activities

- Students with Autism Spectrum Condition (ASC) may experience challenges in practical and less structured learning environments, particularly where there is unpredictability, sensory demand, and a need to process information in real time. Difficulties with executive functioning, processing speed, and anxiety can impact the ability to follow instructions, adapt to changes, and engage confidently in activities. Variations in environment and expectations can also disrupt routine, increasing cognitive load and affecting participation.

- The Scanmarker Max can support engagement and participation in these settings by enabling students to scan and listen to printed materials such as instructions, handouts, manuals, or fieldwork documentation in real time. The line-by-line reading function allows students to process information at their own pace, supporting comprehension and reducing the pressure to interpret information quickly. This can help students to follow procedures more accurately and with greater confidence, particularly where reading under time pressure would otherwise be challenging.

- As a fully standalone and portable device, the Scanmarker Max can be used across a wide range of teaching environments, including classrooms, laboratories, placements, and fieldwork settings, without reliance on internet access or additional software. This supports continuity of access, allowing students to use the same device consistently across different contexts. Maintaining a familiar and predictable tool can reduce anxiety, support routine, and enable smoother transitions between learning environments.

- In addition, key information can be scanned, saved, and replayed, allowing students to revisit instructions or important content as needed. This supports memory and reduces the impact of processing difficulties. Overall, the Scanmarker Max provides a consistent, low-effort solution that supports independence, reduces cognitive load, and enables more effective participation across a range of practical and applied learning environments.

Examinations and Timed Assessments

- The Scanmarker Max, when used alongside the Scanmarker Web Application, includes a summary tool which can be used to break down dense academic reading material. This can support individuals during the revision process, particularly where there are difficulties with comprehension and processing large volumes of information. In addition, the Scanmarker Max enables printed text to be converted into editable digital text across platforms such as Word, Google Docs, and PowerPoint. This allows users to scan research materials directly into their documents, supporting the efficient creation of revision resources and streamlining preparation for assessments.

- Students with ASC may experience difficulties in the build up to timed assessments where there is a need to process lots of information, and manage time under pressure. Anxiety and changes in routine can further impact performance. The Scanmarker Max supports examination preparation by enabling students to convert printed materials into accessible formats, listen to revision content, and review key terminology in a structured and repeatable way. This supports comprehension, organisation, and

retention during the revision process. While the device may offer potential support within examinations, this would be subject to approval by the relevant university or college and must align with institutional regulations and assessment guidance.

- The Scanmarker Max may offer potential support in examination settings, subject to approval by the relevant university or college and in line with specific examination regulations, where permitted in line with the rules and policies of the university/collegeHEP. While the device may offer potential support within examinations, this would be subject to approval by the relevant university or college and must align with institutional regulations and assessment guidance.