

University of California, Berkeley Remains at Forefront of Disability Advocacy with Livescribe Smartpen Loaner Program.

Founded in 1868 and envisioned as a “City of Learning,” UC Berkeley has long been an innovator in serving students with disabilities. In fact, the disability advocacy movement that swept the nation and the world started at this flagship campus.



Created in 1970 as part of this effort, the UC Berkeley Disability Services Program (DSP) is committed to ensuring that all students have equal access to educational opportunities. Today, the university continues to advance learning and career opportunities for thousands of students with disabilities.

A major component of the DSP’s accommodation strategy is to leverage solution-based assistive technology wherever possible. Thus, it was no surprise when the DSP decided to pilot a new assistive technology: the Livescribe smartpen.

What Is a Smartpen?

During a lecture, the smartpen records the professor’s voice and captures the student’s words, scribbles, symbols and diagrams, syncing everything they write to what is said. Later, with a tap anywhere on their notes, they can play back what was said at that exact moment in time – as many times as they need to hear it.

Students can tap on their paper to easily replay the recorded audio, slow it down, speed it up and bookmark key information.

Whether the professor moves too fast or speaks too softly, students can be confident they will never miss a word.

Students can also transfer all their notes and recordings to a Mac or PC to create custom, virtual notebooks to better organize their notes.⁽¹⁾ Students can also access an interactive version of notes and audio on-the-go with their Apple® iPad®, iPhone® or iPod Touch®.⁽²⁾



Research Demonstrates Smartpen Benefits

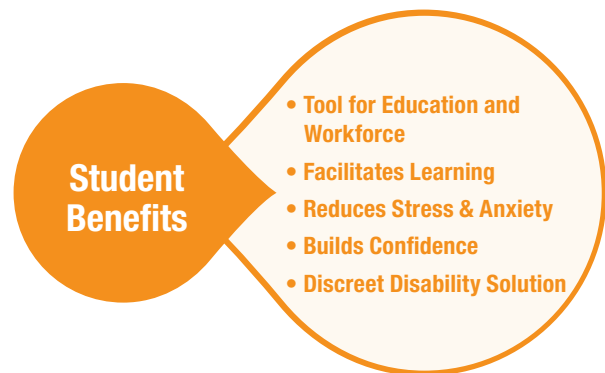
In 2010, DSP Director Paul Hippolitus proposed a pilot program designed to test the effectiveness of the Livescribe smartpen in minimizing the impact of disabilities in the classroom. This study would also compare the smartpen with traditional companion note-takers, which was the university's primary method for providing a note-taking accommodation.

The post-pilot evaluation revealed several valuable insights. Many students reported that because the smartpen allows them to play back any part of the lecture at their convenience, it reduces their classroom anxiety and frees them up to pay better attention.

"The use of the smartpen does help students relax more," said DSP Associate Director Randy Jordan, "because they realize when they go back over [class notes] that they are capturing the key points of the lecture, and they're really not missing anything." According to Jordan, students also relax more knowing that as a discreet disability solution, the smartpen doesn't attract unwanted attention from their classmates.

Another interesting finding was the smartpen's note-taking advantages over laptops and tablets in many courses. For instance, the smartpen held a clear advantage in math, science, and chemistry classes, where information is often diagrammed or set in formulas that don't lend themselves to keyboard transcription. The smartpen captures words, scribbles, diagrams and audio- syncing everything that is said to what is written.

The smartpen also held an advantage in courses like history and literature, with extensive reading and deep discussion. Since students can write less and listen more, they are free to participate in discussions and benefit more from time in class.



Smartpen Accommodates Different Learning Styles

The pilot program also found that because the smartpen engages visual, auditory and kinesthetic learning styles, it is able to accommodate a variety of disabilities and individual learning footprints. As DSP Disability Specialist Abigail Tilden explains, "While students may have similar diagnoses and appear to have the same issues, they don't. Each student has their own style of learning."

Depending on each student's challenges and learning style, the smartpen can meet a variety of specific needs. For example, students with attention deficit disorder can write out additional notes while re-listening to the lecture, while students with limited motor skills can instead bookmark information by writing key words or symbols, and then play back later to review the lecture with a simple tap on the notebook.

(1) Livescribe paper required. Don't record without permission.

(2) Mobile device access requires the free Pencast Player App or Flash® enabled web browser.

Smartpen Loaner Program

Upon review of the pilot program findings, the DSP implemented a department-wide smartpen loaner program for students with learning disabilities. The program leverages a student trainer, a program coordinator, and a smartpen starter kit to facilitate a smooth implementation.

Students borrow the smartpen and the package's other contents (Livescribe notebook, accessories, micro-USB connector cable, and Livescribe desktop software) and return the smartpen at the end of the semester.

The 2011–2012 school year marks the inaugural year of the smartpen loaner program. In its first semester, the program supports 40 students.



DSP Associate Director Randy Jordan demonstrates the kit to a student during an intake interview.

Cost Savings on Traditional Note-Taking Service

Historically, the DSP had hired close to 400 students per semester to take notes for students with learning disabilities who required this accommodation to fully participate during class and obtain comprehensive notes.

According to Paul Hippolitus, companion note-takers for one student in three to four classes per semester cost the university \$5,200 over four years. By contrast, a smartpen costs the university \$169, can be used for all four years, and gets returned to be used again after a student's academic career. Since the smartpen empowers students to take their own notes, the loaner program also saves DSP time that was formerly spent recruiting companion note-takers and monitoring the quality and timeliness of their notes.

Accommodation for Life Strategy

The DSP's strategy is to accommodate students not just for their university career but for their entire life. The process of self-discovery and independence fostered by the smartpen creates confidence that will not fade after four years at UC Berkeley. DSP Director Paul Hippolitus says "it puts the accommodation in their hands. It's a strategy that will work for them when they leave school and move on to their careers."

As a flexible and affordable accommodation strategy, the smartpen is not only an aid for students' academic careers, but also serves as a transitional tool between education and the workforce.

Institutional Benefits

- Flexible Accommodation Strategy
- Builds Student Independence
- Reduces Program Expenses
- Reduces Staff Management
- Transitional Tool for Students into Workforce

Take the Next Step

Purchase an Individual Smartpen (Non-Tax Exempt)

Visit the Livescribe online store: www.livescribe.com/store

Purchase Individual or Multiple Smartpens (Tax Exempt)

For bulk purchases, email our Education Sales team for further information.

Email: higheredsales@livescribe.com

Get More Information about the Livescribe Smartpen

Visit: www.livescribe.com/assistivetechology

Email: higheredsales@livescribe.com

Webinar Schedule and Sign Up: www.livescribe.com/edwebinars

Sign up for Education Newsletter: www.livescribe.com/ednewsletter

Join Us

Like Us on Facebook: www.facebook.com/livescribe

Follow Us on Twitter: [@livescribe](https://twitter.com/livescribe)

Watch Us on YouTube: www.youtube.com/nevermissaword

