

PEBBL

Research Update

Q3 2026



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Curriculum validation, generative language, and error correction.

PEBBL — Progress through Evidence-Based Behavior Lab — is Bierman's practice-embedded research program. This quarterly update recaps **what we have been working on, what we have learned, and where we are headed.**

01 — A NOTE FROM OUR CHIEF CLINICAL OFFICER

It all starts with a pebbl.

When we launched PEBBL a little over a year ago, we made a public commitment: to share what we are learning, honestly, as we learn it. Not just the parts that reflect well on us.



This issue is the clearest expression of that commitment we have put on paper yet. The curriculum article below includes a finding we initially got wrong, and how we caught it. The error correction piece names a preliminary result that complicates a procedure we have relied on for years. These are not oversights we are burying. They are the work.

We are grateful to the clinicians, contributors, and external partners who make this kind of rigor possible. Genuine inquiry is a team sport.

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AT A GLANCE — Q3 2026

3 Posters presented
Regional and national conferences

6 Conference presentations
Including APBA, NJABA, FABA, and HABA

11 Research Spotlight Webinars
Free CEUs for BCBAs, including first annual student research symposium

5 Active research areas
Grounded in clinical questions

2 Publications accepted
Pending revisions, in progress

THE TEAM

9 External research associates
Alumni, grad students, and external BCBAs

3 Research fellowships
Active fellows contributing to ongoing studies

5 Research contributors
Clinicians embedded in active projects

Research built inside the sessions, not alongside them.

PEBBL (Progress through Evidence-Based Behavior Lab) is Bierman's practice-embedded research program. Instead of treating research and clinical care as separate pursuits, we embed inquiry directly into everyday therapy sessions.

The data our clinicians collect while working with children becomes the raw material for studies that **improve care, develop clinicians, and advance the field.**

The name reflects the philosophy. A pebbl(e) is what a penguin offers to build an enduring nest— one small, consistent action laid down with intention. That is how we approach research: one well-placed observation at a time, compounding into something that lasts.

REASON 01

Bridge observation and outcome

Close the gap between what clinicians see today and measurable gains tomorrow.

REASON 02

Shorten the translation gap

The ABA field takes years to translate research into practice. We compress that distance.

REASON 03

Empower our clinicians

Mentorship and authorship opportunities that treat clinicians as thinkers and researchers.

REASON 04

Provide transparent proof

Payers, schools, and families gain clear evidence of treatment effectiveness.

Real sessions power real science, and real science powers better sessions.

01

Curriculum Architecture

Does our curriculum sequence actually hold up?

Most ABA curricula present skills as lists. A child either has a skill or does not. What those lists often miss is the architecture beneath them: which skills build on each other, in what order, and why. When practitioners are left to determine that by intuition, sequencing decisions vary across clinicians and centers in ways that are hard to measure or improve.

Earlier this year, we set out to test one of our own foundational assumptions: that the order in which we arranged skills in our proprietary curriculum actually reflects how children develop and learn. The full company launch completed in September 2026, with the curriculum now in use across all centers and more than 200 clients served to date.

We went looking for evidence. What we found was more interesting than a simple confirmation.

What the data looked like. We pulled 81 active client files with at least 100 skills documented, resulting in 80,464 client-by-target status records across 21 domains and 1,618 distinct targets. That is a substantial dataset for a question like this one.

Our first instinct was to look at the percentage of clients who had mastered each target. Early targets had high mastery rates. Later targets had lower ones. It looked like confirmation that the sequence was correctly ordered by difficulty.

It was not.

A FINDING WE CORRECTED

BEFORE

Declining mastery rates across curriculum tiers read as confirmation of a well-ordered sequence.

AFTER

The curve is an artifact of teaching order, not sequence validity. Probe-out data tells the real story.

Rather than publish a result we knew was flawed, we rebuilt the analysis from the ground up.

This is what practice-embedded research is for.

The better question, and a better tool for answering it. In our clinical records, there is a field called “Probed Out” that captures whether a child demonstrated a target at baseline, before any instruction. Because probe-out status cannot have been caused by teaching order or clinician skill, it is the cleanest difficulty estimate in our dataset. We have 10,090 probe-out records across the curriculum, a median of 50% of assessed targets per client. That is a substantial and structurally clean signal.

We used two techniques to evaluate the curriculum against this data.

The first asked whether the targets hang together at all. Using Mokken scaling, a technique for testing whether items measure a shared underlying ability, our curriculum scored $H = 0.70$. This is considered a “strong” result by established benchmarks, and it is the most reassuring number in this analysis. Whatever the sequencing challenges below, the targets are not a grab-bag. Clients with stronger repertoires reliably have more of them, in a consistent pattern. The curriculum is measuring something real.

The second asked whether our authored order matches how children actually acquire skills. This question does not have one answer — it has 21, one per domain. Some show strong alignment. Others are telling us something needs to change. Here is where each one stands, and what we are doing about it.

Domain	Sequencing Evidence	What This Means
Social	Strong	The authored order reflects how learners actually develop these skills
Tolerance	Strong	Sequence is doing real developmental work
Visual Performance	Moderate	Order tracks difficulty reasonably well
Mand	Moderate	Order tracks difficulty reasonably well
Echoic	Moderate	Order tracks difficulty reasonably well
Listener	Under Review	Largest domain (226 targets). Ordering does not appear to track acquisition difficulty. Clinical review underway.
Joint Attention	Under Review	Predicts how hard a target is to teach, not whether a client already has it. May reflect an instructional sequence rather than a developmental one.
Tact, Imitation, Play	Under Review	Ordering carries little information about acquisition difficulty at this sample size

BOTTOM LINE

The curriculum is internally coherent and measuring something real ($H = 0.70$). The sequence is well-supported in Social, Tolerance, Visual Performance, Mand, and Echoic. It is not yet supported in Listener, which is our largest domain and the highest priority for clinical review. These are not failures; they are exactly the kind of findings a practice-based research program should surface.

PRESENTED AT NJABA | JUNE 25, 2026

From Skill Lists to Learning Systems: Designing and Validating a Developmental Scope and Sequence in ABA

Dr. Lauren Kryzak D'Amato, Hillary Genovese, and Victoria Verdun presented the scope and sequence research to the statewide BCBA community in June. The session rated 4.60 out of 5 stars from 50 attendees, one of the highest-rated presentations at the conference.

“This was an amazing presentation of how the assessments we use as BCBA’s can be put together to create a curriculum. I look forward to when this curriculum or something similar is available to support students in the public school setting.”

Attendee review, NJABA 2026

“This is a relevant and applicable topic. I’d like access to the curriculum once the research is complete.”

Attendee review, NJABA 2026

A follow-up analysis covering additional clients and centers is already underway. We will share updates as findings become reliable.

Read more: biermanautism.com/pebbl/scope-and-sequence-in-aba/

02

Generative Language

Teaching smarter: how we help learners get more from every lesson

At Bierman, our clinical teams are combining two well-established ABA strategies, matrix training and instructive feedback, to help learners build language faster and more flexibly.

Matrix training is a way of organizing what we teach so that a small number of directly taught combinations allows a child to generate many new combinations they were never explicitly taught. Instead of teaching every possible phrase one at a time, we teach a strategic subset and watch children begin to combine words in new ways on their own. It is a powerful demonstration of real, generative language rather than simple memorization.

Noun/Verb	Girl	Dog	Cat	Bird
Eating	Girl eating ★	Dog eating	Cat eating	Bird eating
Sleeping	Girl sleeping	Dog sleeping ✓	Cat sleeping	Bird sleeping
Running	Girl running	Dog running	Cat running ★	Bird running
Sitting	Girl sitting	Dog sitting	Cat sitting	Bird sitting ✓

Highlighted cells were directly taught. Checkmarked cells were never taught but demonstrated independently by the learner.

Instructive feedback adds another layer of efficiency. During the natural praise or feedback that follows a correct response, our clinicians pair in additional, related information the child has not been directly taught yet, without turning it into a formal teaching trial. Over time, many children pick up that extra information incidentally, essentially learning more without needing more dedicated teaching time.

WHERE WE ARE

Used together, these two strategies let us stretch every session further. Learners build a flexible, expanding vocabulary on their devices with significantly less dedicated teaching time. For families, that can mean faster, more natural-sounding communication growth. For our clinical teams, it is another example of how pairing well-researched ABA methods can make therapy time more efficient without sacrificing quality of care.

We are continuing to refine how we apply this approach with the learners who can benefit most, and we will share more as this work develops.

03

Clinical Procedure

Never settling for "good enough": reexamining our error-correction procedures

Good ABA providers do not just adopt a procedure and stick with it forever. They keep asking whether it is still the best option available. That is the spirit behind a recent internal research effort at Bierman: taking our own long-standing error-correction procedure and putting it head-to-head against an alternative.

Error correction is one of the most frequently used teaching tools in ABA. It is what happens the moment a learner responds incorrectly, and getting it right matters just as much as getting the initial teaching right. Rather than assume our current procedure is the best fit for every learner, our clinical team designed a structured comparison: two learners worked through matched sets of teaching targets under each procedure, with our BCBAs tracking how efficiently each learner reached mastery under each approach.

WHERE WE ARE

The preliminary results are interesting. For one learner, the alternative procedure appeared to move learning along more efficiently than our standard approach. For the other, the two procedures performed comparably. That kind of nuance is exactly why this work matters: it suggests error correction may not be one-size-fits-all, and that individualizing this piece of instruction, just like we individualize goals, is worth data-based decision making.

This is early-stage, small-sample data. Rather than changing practice based on a hunch, we are building the evidence first. We plan to expand this comparison to more learners before drawing any firm conclusions, and we will continue sharing what we learn as this research develops. This is another example of how we treat “standard of care” as a floor to build on, not a ceiling to settle for.

What we are working on next

As we move into Q4, here is a preview of what is driving the next phase of our work.

Predictive Modeling

Strengthening our model for clinically recommended discharges, incorporating data from this year's graduation cohort and working out discrepancies to improve predictive accuracy.

Curriculum Validation

Comparing treatment plan progress and assessment gains between our initial curriculum launch group and a control group that began before the curriculum was in place.

Conference Presentations

Bringing the curriculum scope and sequence research to SCABA and Autism NJ, with findings updated to reflect the expanded dataset.

Cross-Disciplinary Care

Piloting a feeding and eating collaboration between speech therapy, occupational therapy, and ABA, building on our earlier assent-based feeding work.

Year Two Priorities: Where We Are

AAC AND SPEECH ALIGNMENT

1

Co-authoring communication goals with SLPs and tracking generalization across providers, with an early pilot underway.

PREDICTIVE MODELING REFINEMENT

2

2026 graduates are being added to the dataset and early model predictions are being compared to actual outcomes to surface discrepancies.

STAFF DEVELOPMENT

3

Continuing to expand fluency-based instruction applications across program types and experience levels.

PARENT PARTNERSHIP

4

Examining how caregiver training intensity relates to skill generalization in home and community settings.

Designed for clinicians at every stage.

PEBBL is designed for clinicians at every stage of their career. You do not need prior research experience — you need curiosity and a question worth exploring.

Clinician Research Pathway

PATH 01

Contributor

Flexible hours. Data collection and literature review. A great starting point for any clinician who wants to engage with research without committing to a full project.

PATH 02

Manager

Designed for BCBAs who are established in their clinical work and want to expand into research. Mentorship and guidance. Manage a research project from development to discussion.

PATH 03

Fellowship

Protected time leading a pragmatic study aimed at peer-reviewed publication. Opportunities for established researchers who seek collaboration.

PATH 04

Advisory Group

Senior clinicians and external experts who meet quarterly to vet study ideas, mentor Fellows, and help shape the research roadmap.

FREE MONTHLY CEUS

Research Spotlight Webinar

Each month, **PEBBL** hosts a Research Spotlight Webinar featuring current studies, early data, and practical takeaways. **BCBAs earn free CEUs for attending.**

RSVP FOR THE NEXT SESSION



09

FOR UNIVERSITY & RESEARCH PARTNERS

A teaching hospital for pediatric therapy.

We operate like a teaching hospital for pediatric therapy, which means **research and clinical training are not afterthoughts. They are infrastructure.**

We partner with university programs to offer:

- Practicum and fieldwork placements with structured supervision
- Guest lectures and case-based learning opportunities
- Collaborative inquiry through PEBBL

Our harmonized measurement approach across clinicians and centers makes our data particularly well-suited to questions requiring **real-world scale and replicability.**

Programs we're currently building with:

Arizona State
University

Ball State
University

Bay Path
University

Bridgewater
State
University

Emerson
College

Montclair
State
University

Northeastern
University

New York
University

Purdue
University

Quinnipiac
University

Regis
University

Rutgers
University

Seton Hall
University

Simmons
University

University
of Dayton

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BIERMAN RISING CLINICIAN SCHOLARSHIP

Bierman awards multiple **\$2,000 to \$3,000** scholarships per year to emerging ABA clinicians in graduate programs nationwide. Recipients receive cash awards, mentorship touchpoints with our clinical leadership team, and resume-ready recognition.

Applications are open to external candidates in all 50 states who have completed at least **8 graduate credits** in an ABA master's program.

Our next round opens in January.
Sign up to be the first to know!



Find the path that fits you.

For Clinicians

Apply to a research track, RSVP for the next Spotlight webinar, or explore how PEBBL fits into your career.

Join PEBBL: <https://www.biermanautism.com/pebbl/>

For University Partners

Collaborate on studies, offer practicum placements, or co-author with our clinical team.

Start a Conversation: <https://www.biermanautism.com/education-partnerships/>

For Students

Apply for the Rising Clinician Scholarship or explore research opportunities through our External Associate program.

See Opportunities: <https://www.biermanautism.com/rising-clinician-scholarship/>

It all starts **with a pebbl.**

Explore research tracks, upcoming webinars, and partnership opportunities.

Questions or collaboration inquiries: pebbl@biermanautism.com