

CAREER PATHWAY INTELLIGENCE

A public-safe, human-guided exploration model connecting students and adults to credible college, career, technical, credential, apprenticeship, and employment routes.

TY HOLSTON | PATHWAY-PLANNING PROTOTYPE + EVALUATION SAMPLE

WHAT THIS PROVES

This brief demonstrates the pathway logic, two learner modes, three synthetic journeys, institutional Pathway Health view, ACT handoff, and proposed release gates. It is not a validated psychometric assessment and does not place, rank, enroll, hire, or apply on behalf of a learner.

From self-discovery to a credible next step

The system keeps interests, readiness evidence, route feasibility, opportunity access, and human choice separate. A learner receives several pathways and a low-risk experiment - not one permanent career verdict.



ARCHITECTURE DECISION RECORD

Why interest is not readiness or feasibility

Enjoying a field, being prepared today, having access to a viable route, and choosing that route are different questions. Keeping them separate prevents a current gap or missing local program from becoming a statement about potential.

Why ACT preparation is conditional

The ACT learning module activates only when a chosen postsecondary route uses the test and the learner elects that support. Test evidence can guide preparation; it does not determine career fit or make college superior to technical, credential, apprenticeship, or employment routes.

The pathway changes with the learner

Student Explorer emphasizes exposure and future planning. Adult Navigator adds prior learning, transferable skills, life constraints, reskilling economics, and advancement. Both retain several routes, transparent evidence, and human review.

MODE	DISCOVERY INPUTS	PATHWAY OPTIONS	HUMAN HANDOFF
Student Explorer	Interests, activities, aspirations, courses, projects, experiences, practical needs	CTE, dual enrollment, credential, college, WBL, apprenticeship, employment	Learner reflection plus counselor, educator, and age-appropriate family review
Adult Navigator	Prior learning, transferable evidence, credentials, work history, earnings, schedule, location, supports	Employer training, short credential, apprenticeship, degree, direct transition, advancement	Adult choice with optional career coach or workforce advisor review

System view: Pathway Health

Aggregate learner interest is compared with program capacity, coherent course sequences, dual enrollment, credentials, work-based learning, employer partners, transportation, scheduling, and current labor-market context. The dashboard evaluates institutional access - not children's worth.

Privacy boundary

Individual exploration stays separate from aggregate system analysis. Public artifacts are synthetic; a school implementation requires data minimization, role-based access, correction and deletion controls, small-group suppression, and FERPA/COPPA review.

Different learners; multiple credible routes

Each journey is fictional. The evaluation question is whether the system broadens exploration, explains its rationale, preserves alternatives, and connects a person to current opportunities without overclaiming fit or readiness.

SYNTHETIC LEARNER	PATHWAY RESPONSE	NEXT SAFE EXPERIMENT	ACT CONNECTION
Grade 8 explorer	Digital Technology, Advanced Manufacturing, Healthcare & Human Services	Hands-on project plus two career conversations	Not activated
Grade 11 health explorer	Health-science course sequence, credential, dual enrollment, college, WBL	Compare two programs and request a job shadow	Offered only if selected programs use it
Adult operations team lead	Supply chain, industrial maintenance, logistics technology	Compare employer training, credential, and apprenticeship	Not activated unless an elected college route uses it

NOTABLE FAILURE MODE

The local catalog becomes a ceiling

A school may not offer the pathway that aligns with a learner's exploration. The system must show regional, postsecondary, employer, and registered-apprenticeship routes, treat transportation or cost as support needs, and surface the missing route as an institutional opportunity gap.

Pilot evidence before assessment claims

These are proposed release gates, not measured outcomes. Validated-assessment language requires licensed instruments or independent psychometric, accessibility, privacy, and bias evaluation.

QUALITY DIMENSION	PILOT TARGET	TEST METHOD	FAIL ACTION
Recommendation diversity	3+ materially different routes	Test middle, high school, adult, and mobility scenarios	Widen exploration logic
Explanation traceability	Every route linked to stated evidence	Input-to-rationale audit	Remove unsupported rationale
Opportunity freshness	Source, geography, and date visible	Seed stale, duplicate, and closed records	Suppress or label record
ACT routing	Shown only when relevant and chosen	Test college, CTE, apprenticeship, and employment plans	Remove handoff
Human authority	Zero autonomous placements or applications	Test every consequential action path	Stop workflow
System equity	No unresolved material pilot disparity	Audit aggregate exposure, omission, access, and supports	Pause expansion

Learner agency and human authority

The tool may organize exploration and suggest low-risk next steps. It does not enroll, deny, counsel out, rank, hire, place, message, or apply on behalf of a learner. People can challenge, correct, reject, export, and revisit the result.

OFFICIAL REFERENCES

National Career Clusters Framework: careertech.org/career-clusters
O*NET Career Exploration Tools and licensing: onetcenter.org/tools | [license requirements](#)
Perkins V indicators: octae.ed.gov/cte/accountability/core-indicators
Registered Apprenticeship: apprenticeship.gov/career-seekers
FERPA and COPPA: studentprivacy.ed.gov/ferpa | ftc.gov/COPPA

Interactive portfolio: ty-holston-executive-portfolio.aumnpupe.chatgpt.site/work/pathway-intelligence