Strategies to increase access to accelerated learning and career and technical education courses

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Why are here today?
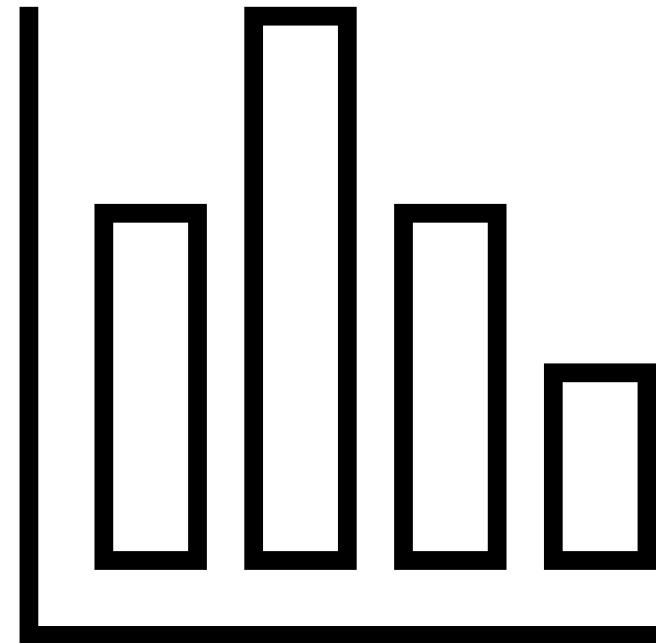
Goals

- Learn about root cause analysis
- Learn about strategies to address participation gaps in accelerated learning and career and technical education (CTE) courses

Reflections on data dashboard
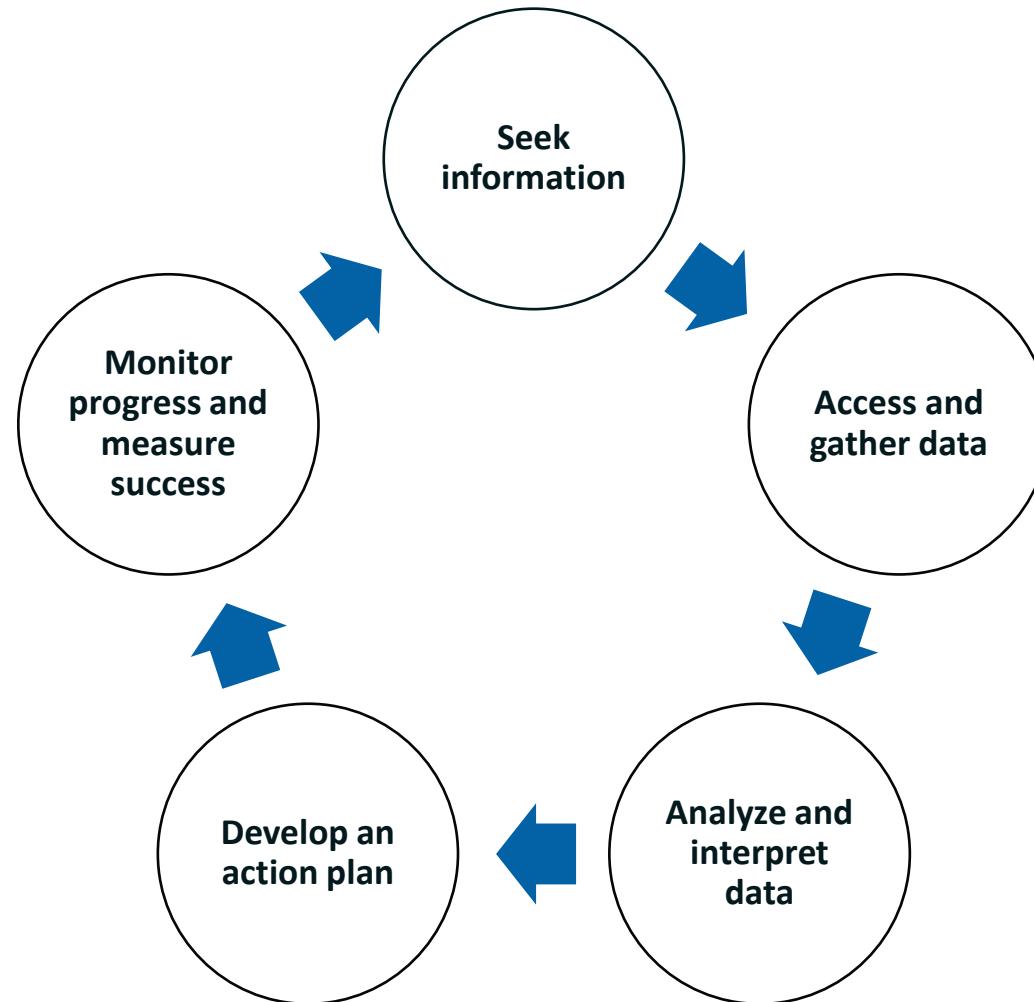
- What thoughts have you had since we met?

- What questions do you have about using the data dashboards?

Root cause analysis
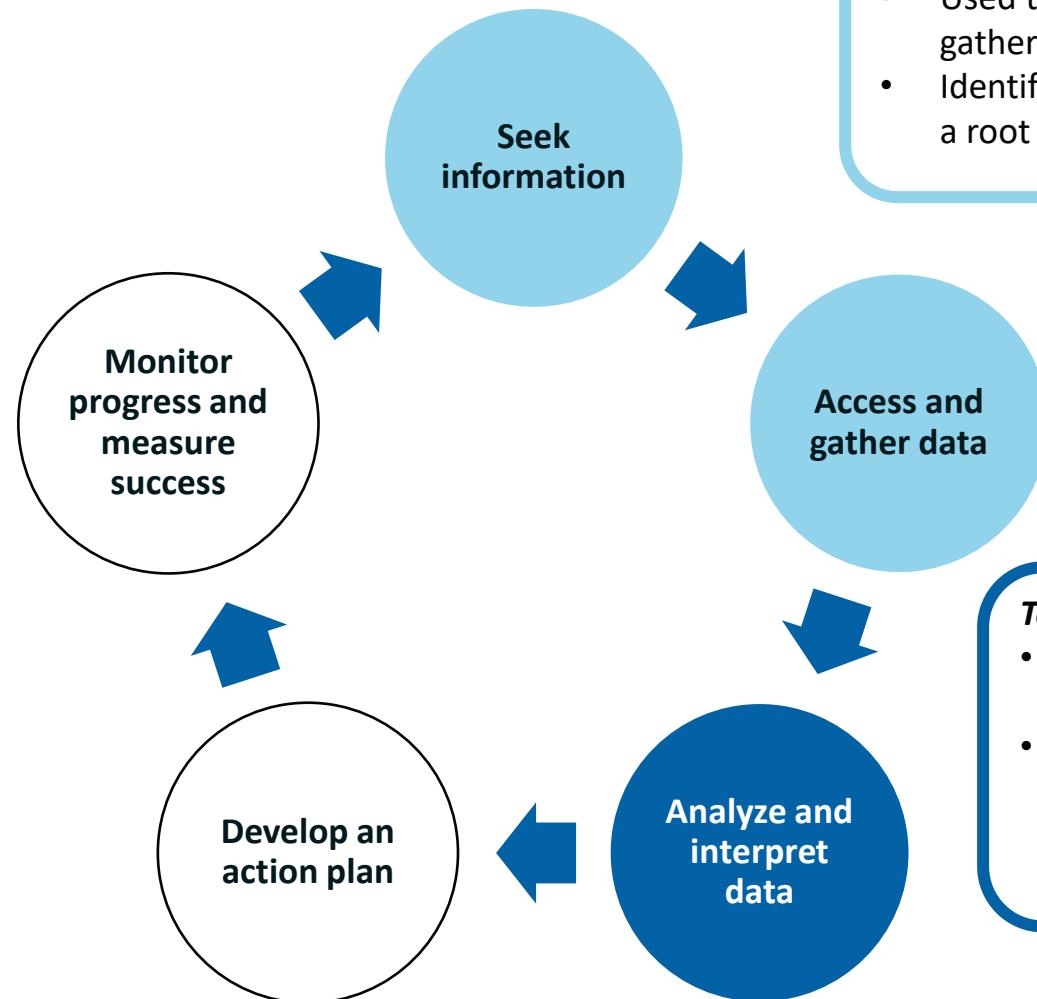
Data inquiry framework

Sources: Bocala, et al., 2014; Kekahio & Baker, 2013

Data inquiry framework

Last time we:
- Used the data dashboards to access and gather data
- Identified equity gap(s) and prepared for a root cause analysis

Seek information

Access and gather data

Monitor progress and measure success

Analyze and interpret data

Develop an action plan

We will share resources so you can:
- Develop an action plan to address the root causes
- Monitor progress and measure success

Today we will:
- Learn how to conduct a root cause analysis
- Hear strategies from teachers and practitioners to close equity gaps in accelerated learning and CTE coursework

Sources: Bocala, et al., 2014; Kekahio & Baker, 2013

# Root Cause Analysis

Definition

Root causes are the deepest underlying causes of a problematic outcome that, if resolved, would eliminate or substantially improve the outcome.
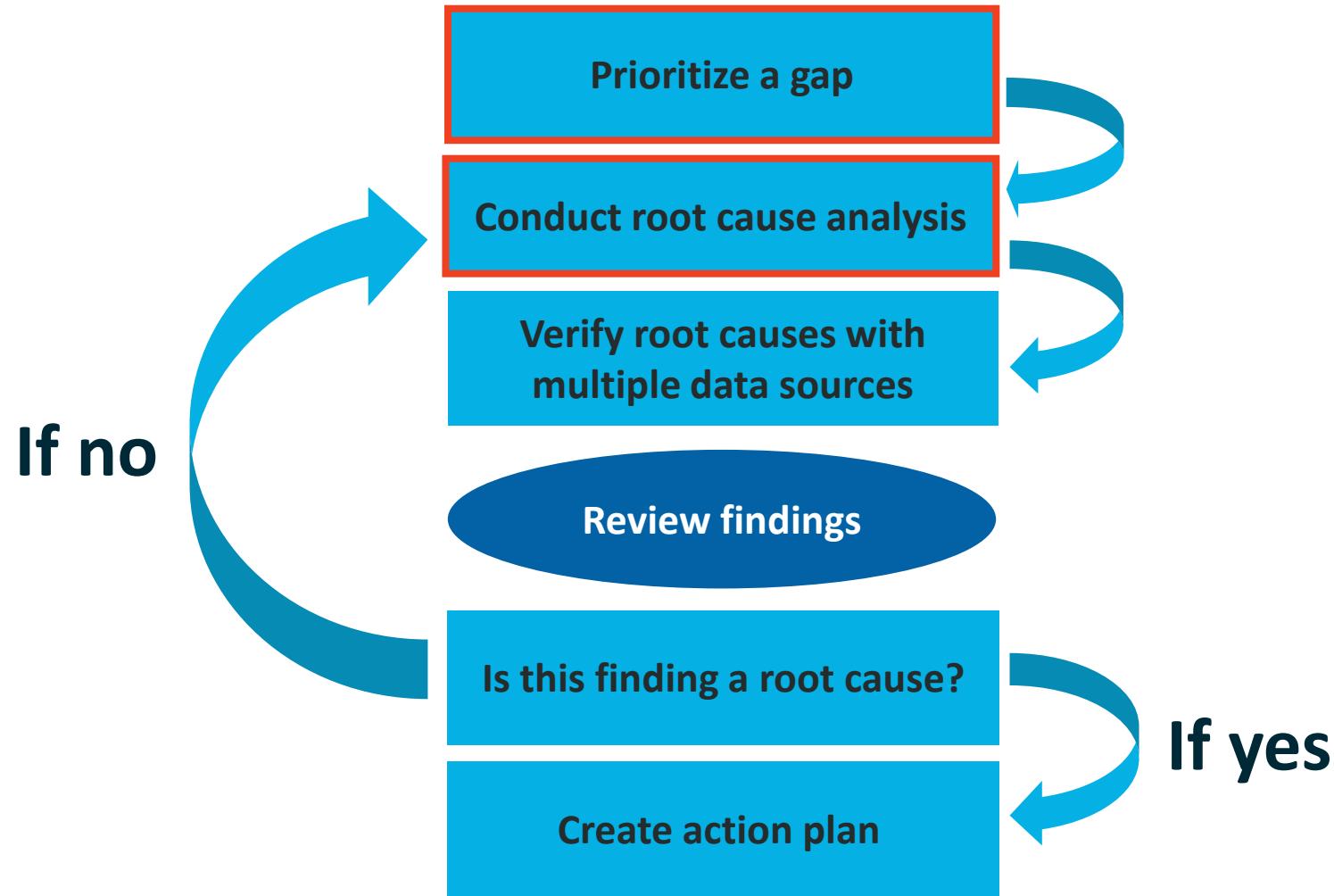
Guidelines

1. Focus on what you/your team can control

2. Distinguish root causes from contributing factors

3. Verify root causes using multiple data sources

*Sources: Kekahio & Baker, 2013; Preuss, 2003; Silverstein, 2014*

Drilling down

Prioritize a gap

Conduct root cause analysis

Verify root causes with multiple data sources

Review findings

If no

Is this finding a root cause?

If yes
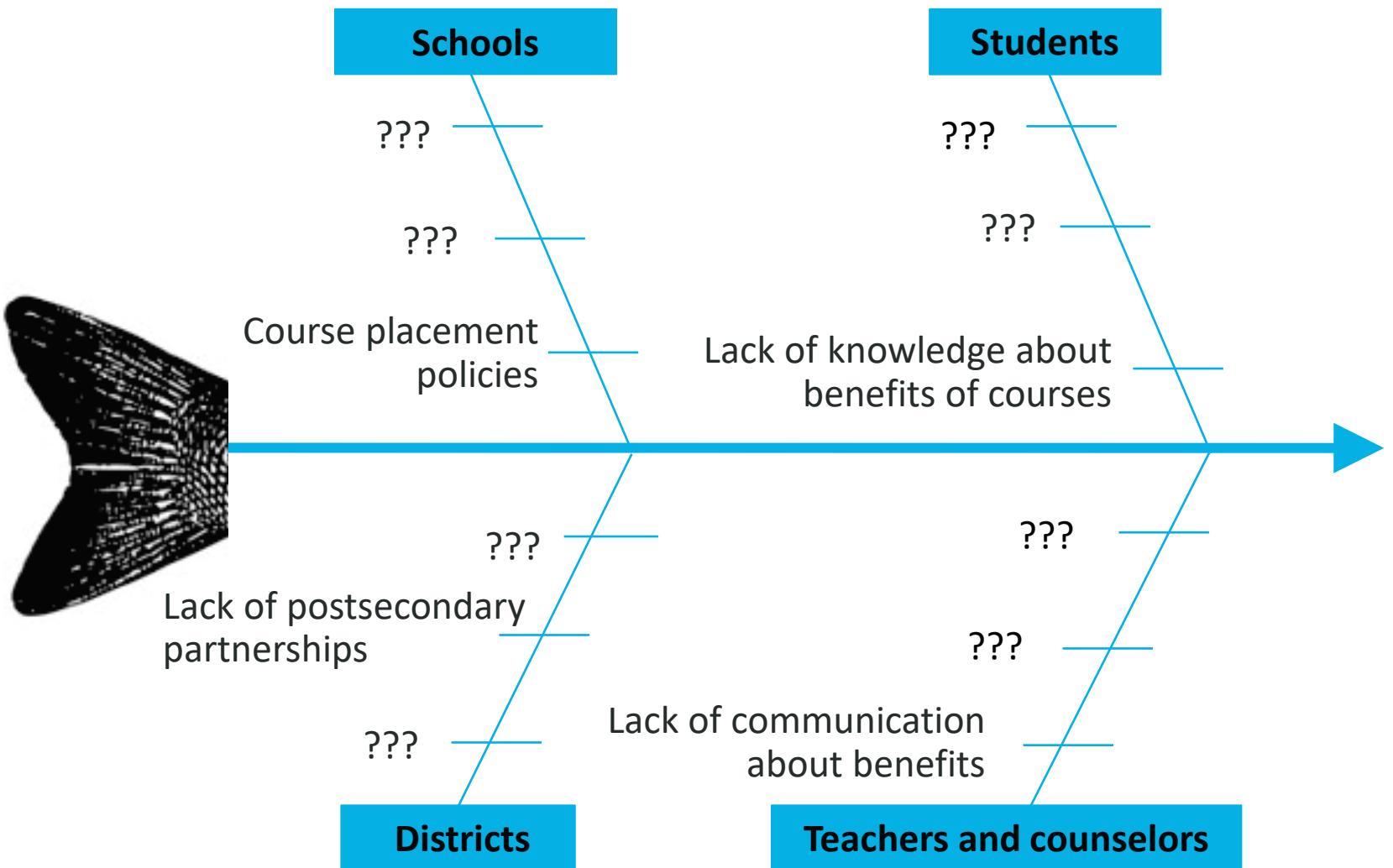
Create action plan
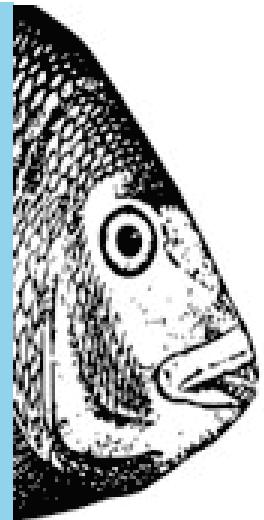
Sources: Kekahio & Baker, 2013; Silverstein, 2014

Schools
- ???
- ???
- Course placement policies

Students
- ???
- ???
- Lack of knowledge about benefits of courses

Districts
- ???
- ???
- Lack of postsecondary partnerships

Teachers and counselors
- ???
- ???
- Lack of communication about benefits

Current English learner students are under-represented in advanced coursework

(Advanced Placement, International Baccalaureate, dual credit)

Root cause: *Schools have course placement policies that negatively impact English learner students*

- Ensure students classified as English learners are not tracked into lower-level courses

- Consider practices like a co-teaching model that allow English learner students access to advanced coursework
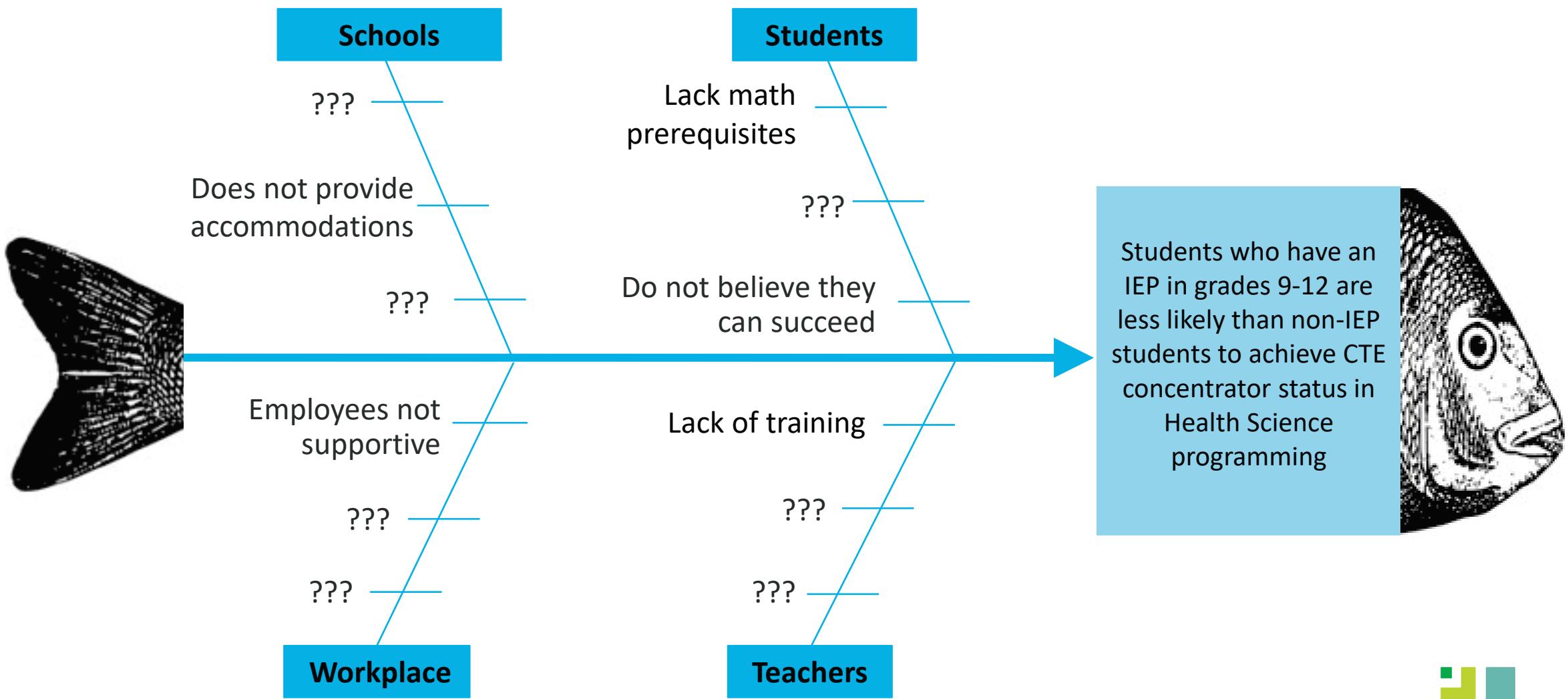
Figure 1. Summary of findings and explanation of rating system

Source: Vazquez Cano et al., 2021

https://www.elrdcenter.wested.org/improve-course-access-of-els

Schools

???

Does not provide accommodations

???

Students

Lack math prerequisites

???

Do not believe they can succeed

Workplace

Employees not supportive

???

???

Teachers

Lack of training

???

???

Students who have an IEP in grades 9-12 are less likely than non-IEP students to achieve CTE concentrator status in Health Science programming

Activity source: Bocala et al., 2014

Root cause: *CTE teachers lack training to support students with special education needs*

- Engage CTE teachers with IEP teams to assist in planning and placement

- Give CTE teachers access to students' IEPs and engage them in finding accommodations

Sources: Haber & Sutherland, 2008; Wonacott, 2001

Finding evidence-based strategies

- Explore the literature to find promising approaches that have been proven to work. Options include:
  - Visiting the CTE Research Network website
    https://cteresearchnetwork.org/
  - Exploring the What Works Clearinghouse website
    https://ies.ed.gov/ncee/wwc/
  - Scanning Advance CTE's Resource Center
    https://careertech.org/resource-center
- *Additional free resources included at the end of this deck.*

Practice session: Conduct a root cause analysis

1. Breakout groups have been created based on the equity gaps you submitted prior to this training. Please join (or request to join) the group that aligns with your interests.

2. Facilitators will be in the main room to answer any questions you may have.

3. Use this time in your breakout room to identify root causes for the priority gap you selected

   - Activity 1 is done.

   - Start on Activity 2. The goal is to start to think about the 5 Why's and move the root causes and categories into the fishbone.

4. Breakout sessions will end in about 10 minutes. We will reconvene in the main room.

Distinguishing between root causes and contributing factors

- Conditions that collectively increase the likelihood of a problematic outcome ➜ Contributing factors
- Conditions that by themselves cause the problem ➜ Root causes

- The problem would have occurred even if this factor was absent ➜ Contributing factors
- The problem would *not* have occurred if the cause was absent ➜ Root causes

Sources: Preuss, 2003

Breakout groups

1. Students ever eligible for FRPL are underrepresented in accelerated learning

2. Female students are underrepresented in CTE dual credit

3. Students who ever had an IEP are underrepresented in accelerated learning

4. Students classified as English learners in grades 9-12 are underrepresented in accelerated learning

5. Students who have an IEP are less likely than students without an IEP to achieve CTE concentrator status in Health Science programming

6. Female students are less likely than male students to achieve CTE concentrator status in STEM programming

Report out

- What questions do you have about root cause analysis?

- What additional supports would you need to complete a comprehensive root cause analysis?

Break

Strategies to increase access to accelerated learning and CTE coursework

Strategies to increase access to accelerated learning and CTE coursework

Course policies and eligibility requirements

Community engagement

Student feedback and voice

Teacher training and instruction
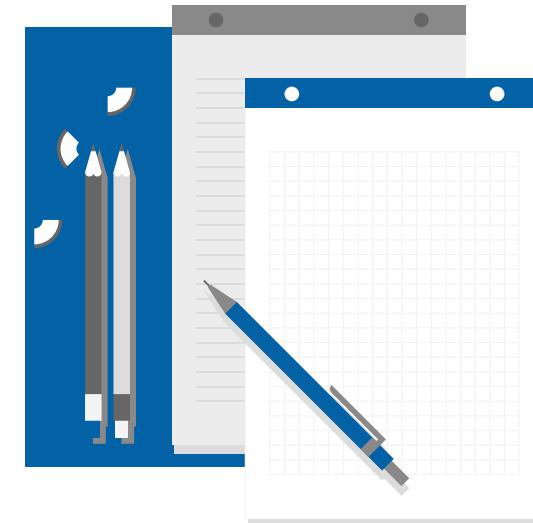
1. Course policies and eligibility requirements

Broaden eligibility for students to enroll in advanced coursework

- Use multiple measures, such as counselor or teacher recommendation, completion of prerequisite courses, a student's demonstrated proficiency in the targeted subject, or a demonstrated supplemental support team.

- Utilize college course options with no or lowered test requirements to expose students to college and build their confidence and experience for more restricted coursework.

Sources: Cooper, n.d.; Mehl et al., 2020

Address CTE entrance requirements

- Avoid additional entrance requirements that may discourage individuals from applying or prevent them from applying by making the application process burdensome.

- If there are more applicants than available spots, explore using a lottery rather than entrance requirements.

- Set aside seats for students, for example, "who are identified as having a certain number of risk factors for dropping out" (Rosen & Molina, 2019, p. 5)

Sources: Dalporto & Tessler, 2020; Estes & McCain, 2019; Kantrov, 2017; Rosen & Molina, 2019
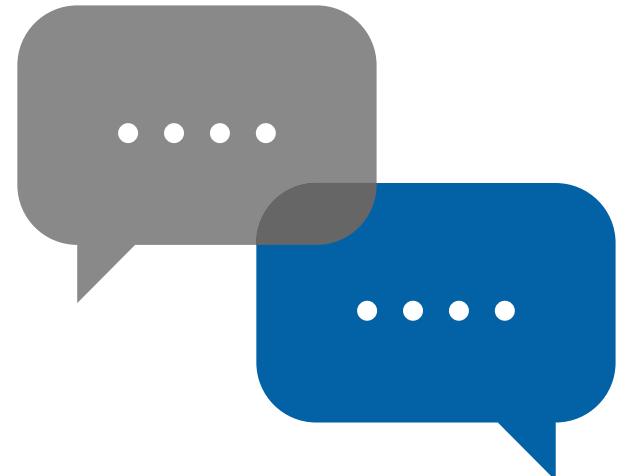
2. Community engagement

Use focused and intentional communication strategies

- All families –***particularly those with first-generation and low-income students and students of color*** – need access to information on opportunities for advanced coursework during high school.
  - Ensure that communication to families is delivered in their primary languages
  - Ensure that outreach is inclusive and differentiated to authentically engage targeted communities

Source: Mehl, et al, 2020; Patrick, et al., 2020

Addressing recruitment and placement in CTE

- Introduce current CTE students and alumni to the community
- Make equity an explicit goal of recruitment including adapting outreach and marketing to student and families' culture and language
- Strive to make programs' student body reflect the demographics of the district/community without ignoring student preferences

Sources: Dalporto & Tessler, 2020; Kantrov, 2017
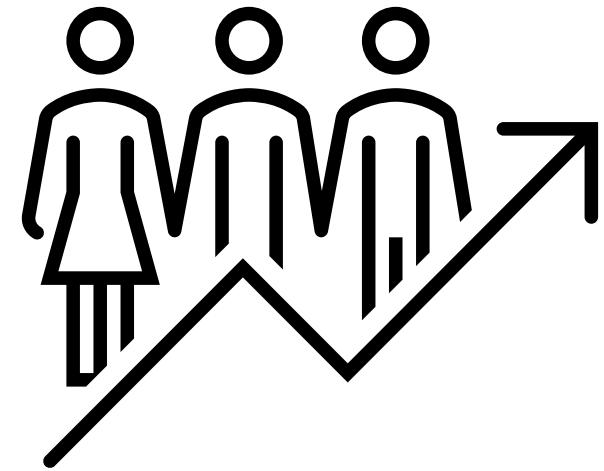
3. Student feedback and voice

Provide opportunities for students to give feedback

- Collect information about the barriers different groups of students face to accessing and succeeding in advanced coursework

- Create a brief exit survey to learn about their experiences in the course

- Create a similar survey for students who did not enroll in advanced coursework

Sources: Cooper, n.d.; Mehl et al., 2020; Patrick et al., 2020

Student Feedback & Voice
Engaging students in accelerated credit access, equity, and program planning

HSD Strategies In Place

- HSD Secondary Needs Assessment survey
- Superintendent Listening Sessions
- Spring survey to students about courses and exam outcomes
- Students present/share at PD CCP ambassadors at building level
- Student representation on
  - Strategic Planning
  - CCAC
  - Accelerated Credit Committee

4. Teacher training and instruction

Provide professional development and training to teachers and counselors

- High school and college dual credit faculty collaborate to offer high-quality courses

- Discuss strategies for recognizing and overcoming personal biases.

- Develop inclusive and culturally responsive teaching practices.

Sources: Cooper, n.d.; Mehl et al., 2020

Professional Development: Culturally Responsive Teaching in CTE

READY FOR RIGOR A FRAMEWORK FOR CULTURALLY RESPONSIVE TEACHING

AWARENESS

- Know and own your cultural lens.
- Understand the three levels of culture.
- Recognize cultural archetypes of individualism and collectivism.
- Understand how the brain learns.
- Acknowledge the sociopolitical context around race and language.
- Recognize your brain's triggers around race and culture.
- Broaden your interpretation of culturally and linguistically diverse students' learning behaviors.

LEARNING PARTNERSHIPS

- Reimagine the student and teacher relationship as a partnership.
- Take responsibility to reduce students' social-emotional stress from stereotype threat and microagressions.
- Balance giving students both care and push.
- Help students cultivate a positive mindset and sense of self-efficacy.
  - Support each student to take greater ownership for his learning.
    - Give students language to talk about their learning moves.

INFORMATION PROCESSING

- Provide appropriate challenge in order to stimulate brain growth to increase intellective capacity.
- Help students process new content using methods from oral traditions.
- Connect new content to culturally relevant examples and metaphors from students' community and everyday lives.
- Provide students authentic opportunities to process content.
- Teach students cognitive routines using the brain's natural learning systems.
- Use formative assessments and feedback to increase intellective capacity.

COMMUNITY OF LEARNERS & LEARNING ENVIRONMENT

- Create an environment that is intellectually and socially safe for learning.
  - Make space for student voice and agency.
- Build classroom culture and learning around communal (sociocultural) talk and task structures.
- Use classroom rituals and routines to support a culture of learning.
- Use principles of restorative justice to manage conflicts and redirect negative behavior.

Affirmation · **Instructional conversation** · **Validation** · **Wise feedback**

STUDENTS ARE READY FOR RIGOR AND INDEPENDENT LEARNING

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- Awareness
- Implicit Bias
- Information Processing

Culturally Responsive Teaching & THE BRAIN

Teacher Preparation: CTE Licensure Courses

Introduction to CTE in Oregon (ED 220)

- What is culturally responsive teaching?
- Socio-political context of CTE
- Data to identify access and opportunity gaps

Curriculum Design, Instructional Strategies, and Assessment (ED 131)

- Universal Design for Learning
- NAPE: Know Yourself, Know Your Students, Strategies for Bringing Culture into the Classroom

Model and Reinforce High Leverage Strategies

- Incorporate project-based learning
- Bring diverse representations into curricula and classroom
- Include students' heritage and lived experiences in curricula
- Include opportunities for storytelling

- Connect lessons to social impact
- Create cooperative, collaborative learning groups
- Incorporate music and movement
- Increase wait time
- Differentiate instruction

Potential next steps

Next steps for you and your team

- Conduct a root cause analysis to surface underlying causes of underrepresentation in accelerated learning or CTE

- Set a specific goal related to the student groups who are underrepresented in accelerated learning or CTE coursework

- Develop an action plan to address root causes and achieve goal

- Monitor progress and measure success

What is one next step you plan to take?

Source: Bocala et al., 2014

Closing

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Resources

Data inquiry (free) resources

Bocala, C., Henry, S. F., Mundry, S., & Morgan, C. (2014). *Practitioner data use in schools: Workshop toolkit* (REL 2015–043). U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory, Northeast & Islands. https://eric.ed.gov/?id=ED551402

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Preuss, P. G. (2003). *School leader's guide to root cause analysis: Using data to dissolve problems.* New York, NY: Routledge. https://eric.ed.gov/?id=ED480880

Silverstein, R. (2014, November 5). *Data inquiry for school improvement: Root cause analysis* [REL Mid-Atlantic webinar]. U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory, Mid-Atlantic. https://eric.ed.gov/?id=ED560600

Accelerated learning (free) resources

Cooper, T. (n.d.). Increasing equity in access to accelerated learning in Oregon. Education Northwest, Regional Educational Laboratory Northwest. https://ies.ed.gov/ncee/edlabs/regions/northwest/pdf/accelerated-learning.pdf

The Education Trust. (2019). *5 things state leaders should do to advance equity: Access to and success in advanced coursework* [Fact sheet.]. https://edtrust.org/resource/5-things-to-advance-equity-in-access-to-and-success-in-advanced-coursework/

The Education Trust and College in High School Alliance (n.d.) *Advancing equity in college in high school programs: Opportunities under ESSA* [Fact sheet.]. https://edtrust.org/issue/dual-enrollment/

Hodara, M. & Pierson, A. (2018). *Supporting the transition to college: Accelerated learning access, outcomes, and credit transfer in Oregon.* Education Northwest, Regional Educational Laboratory Northwest. https://eric.ed.gov/?id=ED589159

    Related infographic: https://ies.ed.gov/ncee/rel/Products/Resource/60189

Mehl, G., Wyner, J., Barnett, E., Fink, J., & Jenkins, D. (2020). *The dual enrollment playbook: A guide to equitable acceleration for students.* The Aspen Institute. https://ccrc.tc.columbia.edu/publications/dual-enrollment-playbook-equitable-acceleration.html

Oregon Department of Education. (2020). *The high school success eligibility requirement rubric.* Oregon: Author.

Accelerated learning (free) resources *(continued)*

Patrick, K., Socol, A., & Morgan, I. (2020). *Inequities in advanced coursework: What's driving them and what leaders can do.* https://edtrust.org/resource/inequities-in-advanced-coursework/

Vazquez Cano, M., Umansky, I. M., & Thompson, K. D. (2021). *How state, district, and school levers can improve the course access of students classified as English learners in secondary schools.* WestEd. https://www.elrdcenter.wested.org/improve-course-access-of-els

Williams, A., & Perry, A. (2020*). Prioritizing equity in dual enrollment.* Policy Brief. Retrieved December 1, 2020, from https://www.ecs.org/prioritizing-equity-in-dual-enrollment/

Zinth, J., & Barnett, E. (2018). Rethinking dual enrollment to reach more students. Denver, CO: Education Commission of the States. Retrieved October 26, 2020, from https://www.ecs.org/wp-content/uploads/Rethinking_Dual_Enrollment_to_Reach_More_Students.pdf

CTE (free) resources

Arneson, A., Hodara, M., & Klein, S. (2020). *Career and technical education in Oregon: Exploring who participates in high school and the outcomes they achieve.* Education Northwest, Regional Educational Laboratory Northwest. https://eric.ed.gov/?id=ED607349

Dalporto, H., & Tessler, B. (2020). *Voices from the field: How community colleges are advancing equity in career and technical education.* MDRC. https://eric.ed.gov/?id=ED604541

Estes, A., & McCain, B. (2019). Four strategies to address equity in CTE. *State Education Standard, 19*(3), 10-14. https://eric.ed.gov/?id=EJ1229646

Harris, J. C., Jonas, D. L., & Schmidt, R. A. (2021). *Virginia high school graduates' career and technical education credentials: Top credentials over time and across student groups* (REL 2021–063). U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory, Appalachia. https://ies.ed.gov/ncee/edlabs/projects/project.asp?projectID=4644

Haber, G. & Sutherland, L. (2008). The four A's of managing the placement and service of students with disabilities in the CTE classroom. *Journal for Vocational Special Needs Education, 30*(1-3). https://files.eric.ed.gov/fulltext/EJ841389.pdf

CTE (free) resources *(continued)*

Kantrov, I. (2017). *Achieving educational equity and justice in career academies: Challenges and promising strategies.* Ford Motor Company Fund. https://www.fordngl.com/media/k2/attachments/FordNGL_EquityReport2017.pdf
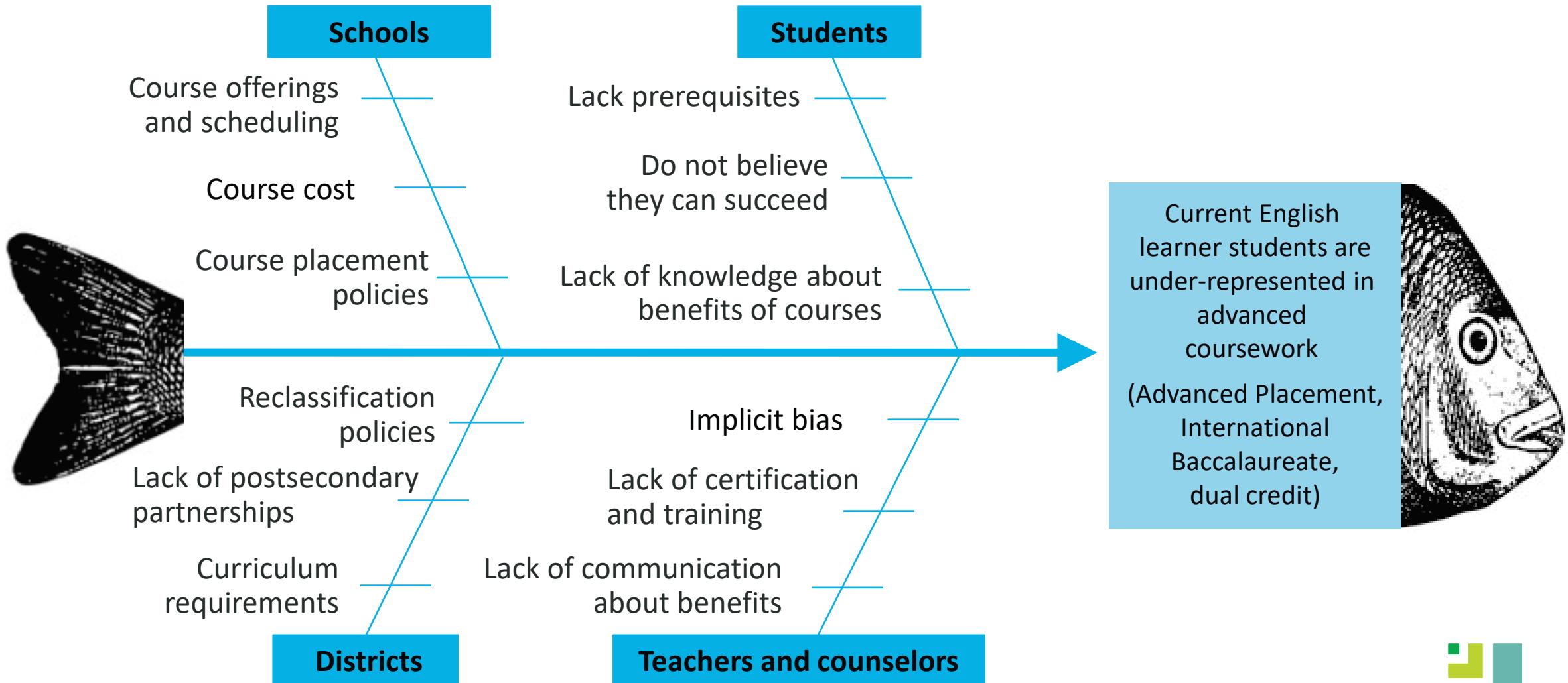
Kim, E. H., Flack, C. B., Parham, K., & Wohlstetter, P. (2021). Equity in secondary career and technical education in the United States: A theoretical framework and systematic literature review. *Review of Educational Research, February 2021,* 1-41.

Rosen, R., & Molina, F. (2019). *Practitioner perspectives on equity in career and technical education.* MDRC. https://eric.ed.gov/?id=ED596458

Wonacott. M.E. (2001). *Leadership development in career and technical education.* ERIC Digest No. 225. https://eric.ed.gov/?id=ED452366
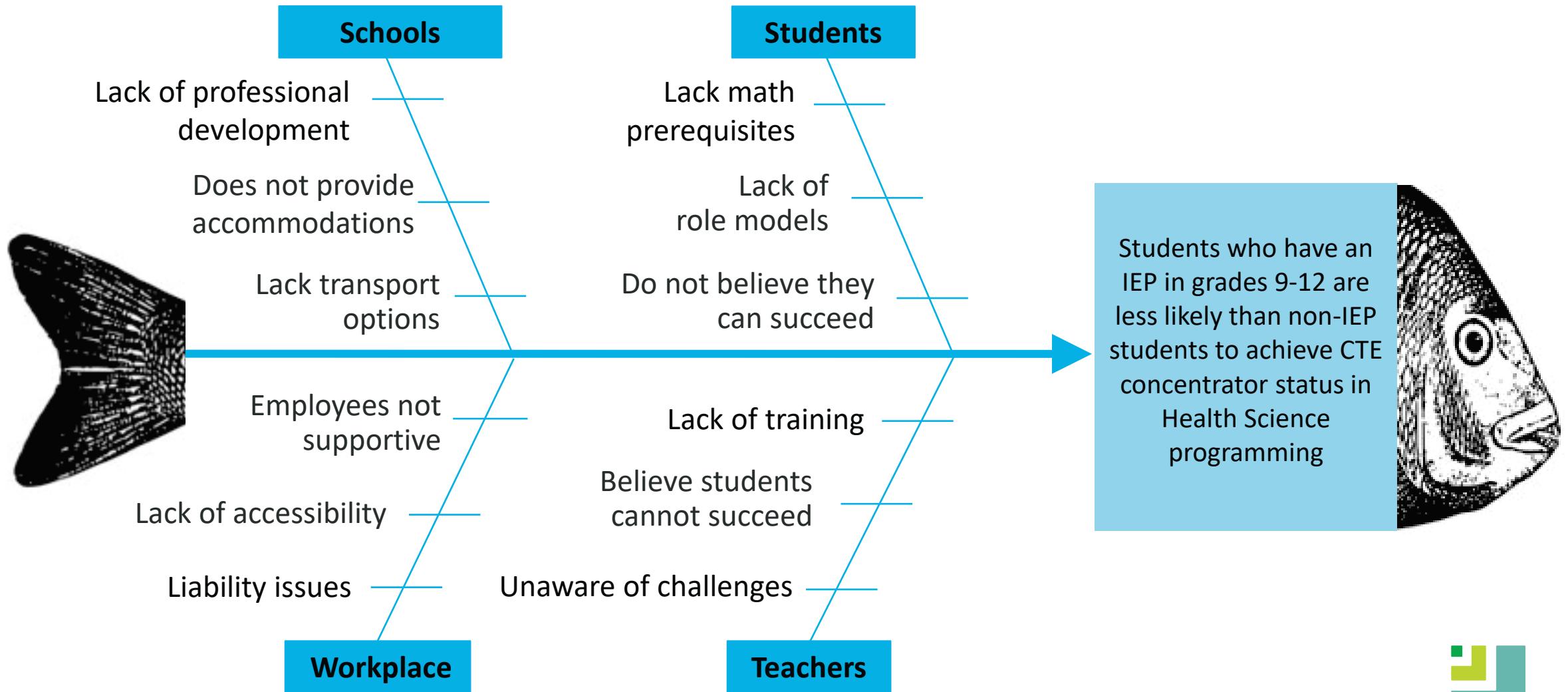
Completed fishbone: Accelerated learning

Schools
- Course offerings and scheduling
- Course cost
- Course placement policies

Students
- Lack prerequisites
- Do not believe they can succeed
- Lack of knowledge about benefits of courses

Districts
- Reclassification policies
- Lack of postsecondary partnerships
- Curriculum requirements

Teachers and counselors
- Implicit bias
- Lack of certification and training
- Lack of communication about benefits

Current English learner students are under-represented in advanced coursework

(Advanced Placement, International Baccalaureate, dual credit)

Completed fishbone: CTE

Schools
- Lack of professional development
- Does not provide accommodations
- Lack transport options

Students
- Lack math prerequisites
- Lack of role models
- Do not believe they can succeed

Workplace
- Employees not supportive
- Lack of accessibility
- Liability issues

Teachers
- Lack of training
- Believe students cannot succeed
- Unaware of challenges

Students who have an IEP in grades 9-12 are less likely than non-IEP students to achieve CTE concentrator status in Health Science programming

Activity source: Bocala et al., 2014