**Supplemental Materials for**

**Teachers can do it: Scalable identity-based motivation intervention in the classroom**

**Section 1 – Teacher Interview Protocol**

**Usability of *Pathways for Success***

We are going to start our conversation today discussing the usability of the program. In other words, we want to understand how easy it was to use the program given the training, resources, and support provided to you; whereas in the second part of the interview we will discuss the feasibility of the program, or how well you were able to implement the program given the other demands being placed on you in your teaching context.

* How did you like the *Pathways for Success* program? Why do you say that?
	+ [Probe: What aspects of the program did you like? Thought could be improved?]
* In our focus group discussion, we asked how confident you were implementing the program. Can you tell me how confident you were before you began implementing the program? How confident are you now? Why do you think your confidence changed or stayed the same?
* In our last discussion, we also talked about the training that you received on *Pathways for Success*. How do you feel about the training you received after having implemented the program?
	+ [Probe: What aspects of the training do you feel helped you the most? How could the training have been improved?]
* We also provided you a weekly implementation manual. How did you use the manual?
	+ [Probe: What aspects of the manual did you find helpful? How could the manual be improved?]
* Let’s move from the implementation manual to the actual activities. What did you think about the *Pathways for Success* activities?
	+ [Probe: How useful do you think they were for students to accomplish program goals? Were there any activities that were not useful for students to accomplish program goals?]
	+ [Probe: What activities were easy to implement? What made those activities easy to implement?]
	+ [Probe: What activities were difficult to implement? What made those activities difficult to implement?]
* Throughout the six weeks you were implementing the program, we provided a weekly check-in via phone. Did you use the weekly check-ins? If so, can you tell me how you used the weekly check-ins?
	+ [Probe: How were the check-ins helpful? How could they be improved?]

**Feasibility of *Pathways for Success***

We just talked about the various components of the program, and how useful they were and their ease of use to implement. Now we want to shift focus to the feasibility of implementation. In other words, we want to understand easy or difficult it was to implement this program given your other responsibilities and initiatives in the school.

* Can you tell me how well the program worked with other initiatives? How did it fit into the overall structure of your school and its class schedule?
	+ [Probe: What school structures were in place that facilitated implementation? What school structures were in place that hindered implementation?]
	+ [Probe: How did the *Pathways for Success* connect to other school-level curriculum or initiatives, if any?]
	+ [Probe: We asked you to implement it in your homeroom or during an advisory period; was that the best time and place to implement the program? Why or why not?]
* We know that you have a lot on your plate, and you have limited time with your students every day. What do you think about the time commitment of *Pathways for Success*?
	+ [Probe: How could the program be adapted to improve implementation, given the constraints on your time and other responsibilities?]
	+ [Probe: Thinking back to our conversation about activities, how could the activities be adapted to better fit the time constraints?]
* How did the resources provided by the *Pathways for Success* program help you implement the program given your other responsibilities and time commitments?
	+ [Probe: Is there a way that the resources provided could be improved? What additional resources or materials would make the activities more feasible?]
* How do you plan to use what you have learned from *Pathways for Success* in the future?
	+ [Probe: Do you incorporate any of the concepts or activities into other classes (e.g. English or math)? Why or why not?]
	+ [Probe: Do you plan to implement *Pathways for Success* next year? Why or why not?]

**Conclusion**

Before we finish up, is there anything we haven’t asked you today that you think would help us better understand your experiences thus far with the *Pathways for Success* program?

**Section 2 – Fidelity Instruments**

**Table S2.1**

***Session 1 (“Creating a Group”) Fidelity Checklist***

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Task** | **Y** | **N** | **Detailed Teacher Behavior** | **Y** | **N** | **Student Behavior** | **Y** | **N** |
| **Agenda hung** |  |  |  |
| **Opening** |  |  |  |
| Welcome |  |  | Greet participants and latecomers |  |  | Greet teacher |  |  |
|  | State program title, an overarching description of program and how often and when it will meet. |  |  | Listen |  |  |
| Introductions |  |  | Teacher introduces self (Name)  |  |  | Listen |  |  |
|  | States there is observer/videographer/camera in the room to observe trainer (improve program not grade students) |  |  | Acknowledge observer/ videographer if present |  |  |
| **Introduction** |  |  |  |
| Introduce the concept of introductions as goal oriented |  |  | Ask what an introduction is |  |  | Share ideas |  |  |
|  | Write student responses down |  |  | Listen |  |  |
| Reinforce: is a way of saying who you are and what you can contribute |  |  |
| Different goals for introductions  |  |  |
| Show preprinted newsprint definition (Introduction) |  |  |
| Introduce Pathways to Success as success oriented |  |  | State that Pathways to Success will focus on working to reach goals and being successful. |  |  | Listen |  |  |
|  | Ask about skills and abilities for succeeding in school  |  |  | Share ideas  |  |  |
| Reintroduce self with a skill or ability  |  |  | Listen |  |  |
| **Introductions task** |  |  |  |
| Group creation process |  |  | Explain activity |  |  | Listen |  |  |
|  | Pass out marbles |  |  | Take marble/Find Partner |  |  |
| Creating sense of competence |  |  | Ask for questions |  |  | Respond to teacher |  |  |
|  | Circulate, check for understanding |  |  | Talk in pairs |  |  |
| Make big circle |  |  | Form circle |  |  |
| Ask youth to introduce partners/ask for repetition of names and skills  |  |  | Introduce partner |  |  |
| State specific plan for who is speaking |  |  |  |  |  |
| Has students repeat the names/skills of ALL those who have already been introduced |  |  | Repeat names and skills |  |  |
| Teacher participates |  |  |  |  |  |
| **Expectations & Concerns** |  |  |  |
| Elicit sense of self-control |  |  | Introduce new task, explain concept |  |  |  |
|  | Ask for examples |  |  | Participate |  |  |
| Use newsprint to write group expectations |  |  |
| Use newsprint to write group concerns |  |  |
| Reinforce and repeat 4 basic themes (seeing both my far and near future/developing strategies to work toward my future/seeing the path between now and my future/getting help (parents, community members, and teachers can be resources) |  |  | Listen |  |  |
| **Rules** |  |  |  |  |  |  |  |  |
| Provide a sense of safety |  |  | Elicit group rules (everyone participates, no name calling)  |  |  | Participate |  |  |
| Write on newsprint |  |  |
| **Goals** |  |  |  |
|  | State goal |  |  | Listen |  |  |
| Show prepared newsprint |  |  |  |
| **Naming Group** |  |  |  |
|  | Explain activity |  |  |  |  |  |
| Give examples, elicit ideas  |  |  | Share ideas |  |  |
| Call for a vote |  |  | Vote |  |  |
| **Human knot task** |  |  |  |
| Group creation process |  |  | Explain task, stand in circle, cross arms in front and grab hands of two people across the circle, then without letting go of hands, get them uncrossed so that we are again in a circle |  |  | Move, reform circle |  |  |
| Ensures all students participate |  |  |
| Teacher is part of the circle |  |  |
| Reinforce cooperation and congratulate  |  |  |
| **Next session and goodbyes** |  |  |  |
|  | Summary Statement: strengths to succeed |  |  | Listen |  |  |
| Connecting Statement: Next session will work on adult images |  |  |
| **Completed necessary components of session in appropriate time** |  |  |  |  |

**Table S2.2**

***Session 2 (“Adult Images”) Fidelity Checklist***

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Task** | **Y** | **N** | **Detailed Teacher Behavior** | **Y** | **N** | **Student Behavior** | **Y** | **N** |
| **Agenda hung**  |  |  |  |  |  |  |  |  |
| **Opening** |  |  |  |
| Welcome |  |  | Greet participants and latecomers  |  |  | Greet trainer  |  |  |
| Say today is session 2, adult images |  |  |
| Last session |  |  | Ask for what happened last session and why |  |  | Share ideas (Learned names about each other, expectations, concerns, games as a team, adding and building on each others’ skills) |  |  |
| Reinforce student participation (Why: people have lots of different skills that will help them succeed) |  |  |
| Bridging |  |  | Teacher bridges last session and this session (last session we focused on skills and abilities to succeed in school, today we want to look towards the future and the adults we want to become) |  |  | Listen |  |  |
| **Images** |  |  |  |
| Introduce the concept of adult images |  |  | Explain task – choosing pictures that represent images of yourself as an adult. Each to pick 3 to 5 pictures, what do they mean for you and when these will be true of you, afterwards share |  |  | Listen |  |  |
| Create personal images |  |  | Make instructions clear/Ask for questions |  |  | Ask questions/Clarifies directions |  |  |
| Have participants begin |  |  | Move around room, picking pictures |  |  |
| Mingle – check for understanding |  |  |
| Share |  |  | Have everyone rejoin circle |  |  |  |  |  |
| Explain task – show 1 picture and explain to group, while group listens and pays attention  |  |  | Participate |  |  |
| Write participant responses on newsprint, clustering by themes |  |  | Listen |  |  |
| **Domains of adulthood** |  |  |  |
| Highlight various domains |  |  | Explain task – participant to call out what they thought was similar about everyone’s adult images |  |  | Share ideas |  |  |
| Reinforce personal competence in noticing connections, ability to contribute to the in group |  |  | Highlight themes that emerge (e.g., jobs, family, friends, community involvement, life style; trainer need only mention domains that did emerge) |  |  | Listen |  |  |
| **Next session and goodbyes** |  |  |  |
|  | Summary Statement: adult images can be about jobs, family, friends, community involvement, and lifestyle (only those group brought up or implied) (adult images + repeat themes) |  |  | Listen |  |  |
| Connecting statement: next session we’ll identify models and forces that help us work on those adult images that are goals |  |  |
| **Completed necessary components of session in appropriate time** |  |  |  |

**Table S2.3**

**Session 3 (“Positive and negative forces”) Fidelity Checklist**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Task** | **Y** | **N** | **Detailed Teacher Behavior** | **Y** | **N** | **Student Behavior** | **Y** | **N** |
| **Agenda hung**  |  |  |  |  |  |  |  |  |
| **Opening** |  |  |  |
| Welcome |  |  | Greet participants and latecomers  |  |  | Greet trainer  |  |  |
| Say today is session 3, positive role models & negative forces |  |  |
| Last Session |  |  | Ask for what happened last session and why (Why: everyone has adult images) |  |  | Share ideas (picked pictures of adult images, when would happen and what had in common) |  |  |
| Ask for domains of adulthood that discussed  |  |  | Share ideas (lifestyle, career, relationship, community involvement) |  |  |
| Reinforce student participation (reinforce what students said: Both what happened, everyone has adult images, and domains of adulthood) |  |  | Listen |  |  |
| Bridging |  |  | Trainer bridges last session and this session (discuss difference between dreams and possible selves) |  |  | Listen |  |  |
| **Role models and** **negative forces** |  |  |  |
| Adults images come from somewhere  |  |  | Ask for what are positive models and negative forces. |  |  | Share ideas |  |  |
| Reinforce participation. |  |  |
| Use Newsprint to write what they say |  |  |
| Define terms (positive role model – image of attained goal/supports work toward it, negative model – image of failure, undermines effort) |  |  | Share ideas |  |  |
| Show preprinted newsprint definition |  |  | Listen |  |  |
| Those close to us, often parents, can support or tear down |  |  | Explain task/handout worksheets. Start with Job domain – write/draw adult image and a positive and negative force for that adult image  |  |  | Write goals/role models/force  |  |  |
| Mingle, check for understanding |  |  |
| Have students organize into circle |  |  | Students organized in a circle |  |  |
| Discuss models and negative forces. Have students give examples  |  |  | Participate |  |  |
| Write on newsprint as they do (cluster similar) |  |  |
| Read through positive model list |  |  | Listen,  |  |  |
| Read through negative force list |  |  | Listen,  |  |  |
| Say close people in our lives can be supporting, |  |  |  |  |  |
| Say everyone has negative forces |  |  |  |  |  |
| **Next session and goodbyes** |  |  |  |
|  |  |  | Summary Statement: we worked on, role models and negative forces, everyone has both |  |  | Listen |  |  |
| Connecting Statement: next session timelines into the future |  |  |
| **Completed necessary components of session in appropriate time** |  |  |  |

**Table S2.4**

***Session 4 (“Timelines”) Fidelity Checklist***

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Task** | **Y** | **N** | **Detailed Teacher Behavior** | **Y** | **N** | **Student Behavior** | **Y** | **N** |
| **Agenda hung** |  |  |  |  |  |  |  |  |
| **Opening** |  |  |  |
| Welcome |  |  | Greet participants and latecomers  |  |  | Greet trainer |  |  |
| Say today is session 4, time lines |  |  |
| Last Session |  |  | Ask for what happened last session and why (everyone has positive and negative forces, can help us see path or make more difficult). Ask to repeat themes |  |  | Share ideas (positive and negative forces for career possible selves, examples; themes – jobs, family, community participation, friends, lifestyle)  |  |  |
| Reinforce student participation (why: difficulties along way are normal; working on difficult things is important) |  |  | Listen |  |  |
| Bridging |  |  | Trainer bridges last session and this session (Today we will begin to map out how to get from now to the future) |  |  | Listen |  |  |
| **Timelines Activity** |  |  |  |
| Create sense of linear time |  |  | Ask what are timelines, ask for ideas |  |  | Share ideas |  |  |
| Write ideas on newsprint |  |  |
| Repeat examples (linear, history, now in future and future not for sure) |  |  | Listen |  |  |
| Reveal preprinted newsprint timeline (general) |  |  |
| Create sense of competence to handle choices, obstacles; Reinforce naturalness of obstacles |  |  | Explain fork in the road |  |  | Listen |  |  |
| Ask students for examples |  |  | Share ideas |  |  |
| Explain obstacles-barriers-road blocks |  |  | Listen |  |  |
| Ask students for examples |  |  | Share ideas |  |  |
| Reveal preprinted timeline into the future |  |  | Listen |  |  |
| Create Timelines |  |  | Explain the tasks – rough draft then on timeline, everything from now as far as can go, in order (at least 1 fork and 1 obstacle). |  |  | Listen |  |  |
| Pass out materials – tell to spread out |  |  | Move |  |  |
| Repeat instructions as needed (out loud, individually) |  |  | Work |  |  |
| Circulate & provide help |  |  | Work |  |  |
| **Discuss Timelines** |  |  |  |
|  |  |  | Regroup Students (I know you are not done but..) |  |  | Regroup |  |  |
| Ask students to show timelines |  |  | Show timelines |  |  |
| Ask students to point to their fork in the road |  |  | Show forks |  |  |
| Ask students to point to their obstacle |  |  | Show obstacles |  |  |
| Get one or two students to state their fork |  |  | Share ideas |  |  |
| Get one or two different students to state their obstacle |  |  |
| Time permitting, suggest an additional step in the timeline for another student |  |  |
| **Next session and goodbyes** |  |  |  |
|  |  |  | Summary Statement: timelines, forks in the road, obstacles, timelines into the future |  |  | Listen |  |  |
| Connecting Statement: next session is 5, Action Goals |  |  |
| **Completed necessary components of session in appropriate time** |  |  |  |

**Table S2.5**

***Session 5 (“Action Goals”) Fidelity Checklist***

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Task** | **Y** | **N** | **Detailed Teacher Behavior** | **Y** | **N** | **Student Behavior** | **Y** | **N** |
| **Agenda hung** |  |  |  |  |  |  |  |  |
| **Opening** |  |  |  |
| Welcome |  |  | Greet participants and latecomers  |  |  | Greet trainer |  |  |
| Say today is session 5, action goals |  |  |
| Last session |  |  | Ask for what happened last session and why |  |  | Participate (Timelines, forks, obstacles) |  |  |
| Reinforce student participation (why: timelines help us order things from next year to future) |  |  | Listen |  |  |
| Bridging |  |  | Trainer bridges last session and this session (Say: action goals, timelines, adult images) |  |  | Listen |  |  |
| **Action Goals** |  |  |  |
| Define term |  |  | Before we talked about adult images, some were PS and others were dreams. What is the difference between a PS and a dream? |  |  | Share ideas |  |  |
| Reveal preprinted newsprint definitions (action goals)  |  |  |
| Define terms (Goal, Action Goal, An action goal has an adult PS, closer PS, strategy and when and where actions occur; this takes the form of a sentence) |  |  |
| Use worksheet to practice Action Goals |  |  | Explain task – write specific action goal for two domains of adulthood, start with career (Because, I will, By, When-Where) |  |  | Listen |  |  |
| Provide example of an action goal |  |  | Share ideas |  |  |
| Circulate & provide help |  |  | Work |  |  |
| Move back to circle |  |  | Move |  |  |
| Have students read their action goals (starting with someone who hasn’t yet participated),  |  |  | Participate |  |  |
| Use newsprint to cluster common themes from the career “Because,” clustering by the “I will” statements (these are the near possible selves, many of which will involve school) |  |  |
| Anyone who doesn’t have today action, trainer helps problem solves suggests working on different peace |  |  | Participate |  |  |
| Summarize the cluster themes |  |  | Listen |  |  |
| **Next session and goodbyes** |  |  |  |
|  |  |  | Summary statement: today worked on action goals |  |  | Listen |  |  |
| Connecting statement: next session we will work on possible selves and strategies |  |  |
| **Completed necessary components of session in appropriate time** |  |  |  |

**Table S2.6**

***Session 6 (“Possible Selves and Strategies) Fidelity Checklist***

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Task** | **Y** | **N** | **Detailed Teacher Behavior** | **Y** | **N** | **Student Behavior** | **Y** | **N** |
| **Agenda hung** |  |  |  |  |  |  |  |  |
| **Opening** |  |  |  |
| Welcome |  |  | Greet participants and latecomers  |  |  | Greet |  |  |
| Say this is session 6, Possible selves and strategies |  |  |
| Last session |  |  | Ask for what happened last session and why (helps narrow down to focus on the possible selves we can actually start working on now) |  |  | Share ideas (Action goal, Because, I Will, By, When, Where, give examples that show these and the idea of linking far and near future goals) |  |  |
| Reinforce the concept of action goals (because, I will, by, when-where) link more distal goals to closer ones with activities to be done in certain times and contexts |  |  | Listen |  |  |
| Bridging |  |  | Trainer bridges last session and this session (last session we linked adult images to the next few year with action that could be done right now, this week). This session we will focus on the really close future, next year. |  |  | Listen |  |  |
| **Possible Selves** |  |  |  |
| Defining PS and strategies |  |  | Introduce new concepts (expected, to-be avoided possible selves and strategies) |  |  | Listen |  |  |
| Reveal preprinted newsprint definitions (possible selves) |  |  |
| Reveal preprinted newsprint definitions (strategies) |  |  |
| Connecting next year goals and strategies |  |  | Show blank Poster Board (left, middle, right) |  |  | Listen |  |  |
| Provide instructions for next year PS (focus on left only) |  |  |
| Making poster boards  |  |  | Explain Use of Next Year PS stickers (read and choose 5 expected, 5 to be avoided for you, can write your own, after read, do not pull off backing until picked best 5, choose expected for the left top and to be avoided for bottom) |  |  | Listen |  |  |
| Show with finger on board. Pass out sticker bag (repeat instructions read before peeling, only 5, top expected, bottom to be avoided) |  |  | Listen |  |  |
| Pass out boards (repeat instructions out loud) |  |  | Move, Work |  |  |
| Circulate, check for understanding |  |  |
| Explain choosing strategies connecting to next year selves |  |  |
| Pass out strategy stickers (collect PS stickers) |  |  |  |  |  |
| Repeat Instructions (ask if are doing anything to work on a PS and if so, use a sticker to say what and place on board) |  |  | Listen |  |  |
| Circulate, check for understand |  |  | Work |  |  |
| Explains use of red markers, pass out red markers |  |  | Listen |  |  |
| Explains use of red markers again out loud and individually  |  |  | Work |  |  |
| Walk through group continuously, helping, giving positive reinforcement, clarifying instructions |  |  |
| Explains use of blue markers |  |  | Listen |  |  |
| Ask for red back in exchange for blue |  |  | Work |  |  |
| Circulate, look at boards, remark out loud, some possible selves have strategies we are using now, they are marked with a red line, some possible selves have strategies we could be using but are not now, they are marked with a blue line, some possible selves have no strategies. Then the strategy space is blank. |  |  |
| **Next session and goodbyes** |  |  |  |
|  |  |  | Summary Statement: today worked on possible selves and strategies boards) |  |  | Listen |  |  |
| Connecting Statement: next session we will finish our poster boards by listing adult possible selves and seeing if there are pathways from next year to adulthood through current action |  |  |
| **Completed necessary components of session in appropriate time** |  |  |  |

**Table S2.7**

***Session 7 (“Pathways to the Future”) Fidelity Checklist***

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Task** | **Y** | **N** | **Detailed Teacher Behavior** | **Y** | **N** | **Student Behavior** | **Y** | **N** |
| **Agenda hung** |  |  |  |  |  |  |  |  |
| **Opening** |  |  |  |
| Welcome |  |  | Greet participants and latecomers  |  |  | Greet trainer |  |  |
| Say today is session 7, Pathways to the future |  |  |
| Last session |  |  | Ask for what happened last session and why |  |  | Share ideas (Poster boards, stickers, possible selves, strategies, examples showing idea that possible selves can link to strategies) |  |  |
| Put up preprinted newsprint (PS & strategies) from Session 6  |  |  |
| Reinforce concepts (possible selves are possible, not for sure but not just hopes, can work on them with strategies right now, strategies are the things we do or can do now to make them happen). |  |  | Listen |  |  |
| Bridging |  |  | Trainer bridges last session and this session (next year possible selves and strategies, connected with red lines if doing now, blue lines if could do). |  |  | Listen |  |  |
| Show poster board and point to right (adult possible selves) |  |  |
| Now we are going to do this part (point to right) |  |  |
| **Connecting next year and the future** |  |  |  |
|  |  |  | Show baggies. Like last session, I will give you a bag of stickers. These are expected and to be avoided adult selves. Read the stickers. Pick the best 5 expected and the best 5 to be avoided. Do not pull off backing until ready. |  |  | Listen |  |  |
| Repeat instructions while passing back boards and adult stickers  |  |  | Ask questions/Clarify instruction |  |  |
| Repeat instructions while circulating to look at boards, positively reinforce effort |  |  | Work |  |  |
| Explain markers and distribute. Say: Put the stickers back in the bag and I will trade you for a red marker. For each adult or to-be-avoided possible self, if one of the strategies that you are doing now can help you get to or avoid it, then connect the strategy to the possible self with a red line |  |  | Work on own |  |  |
| Circulate, repeat instructions, look at boards and check for understanding |  |  | Work on own |  |  |
| As students finish, offer to trade red markers with blue. Instruction: Look at the strategies you could use but are not using now. Any of these that could help with adult possible selves, draw a blue line from the strategy you could use and the possible self it would help. |  |  | Raise hands, swap markers |  |  |
| Circulate, repeat instructions, check boards |  |  |  work |  |  |
| **Sharing pathways** |  |  |  |
|  |  |  | Ask students to move chairs, reorient to see each other’s work |  |  | Students are with partners or in groups  |  |  |
| Ask students to show their work |  |  | Show, Listen |  |  |
| Define pathway (Define connection as pathways (strategy connects a next year self to adult self) |  |  | Listen |  |  |
| Ask students with a red pathway to read the current pathway (strategy, next year, adult) |  |  | Show, Listen, Talk |  |  |
| Ask students with a blue pathway to read the potential pathway (strategy could use, next year, adult). |  |  | Show, Listen, Talk |  |  |
| Reinforce individual participation in activity |  |  | Listen |  |  |
| **Next session and goodbyes** |  |  |  |
|  |  |  | Summary Statement: today worked on pathways |  |  | Listen |  |  |
| Connecting Statement: next session we will work difficult puzzles in life |  |  |
| **Completed necessary components of session in appropriate time** |  |  |  |  |  |  |  |  |

**Table S2.8**

***Session 8 (“Puzzles”) Fidelity Checklist***

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Task** | **Y** | **N** | **Detailed Teacher Behavior** | **Y** | **N** | **Student Behavior** | **Y** | **N** |
| **Agenda hung** |  |  |  |  |  |  |  |  |
| **Opening** |  |  |  |
| Welcome |  |  | Greet participants and latecomers by name |  |  | Greet |  |  |
| Say today is session 8, puzzles |  |  |
| Last session |  |  | Ask for what happened last session and why |  |  | Share ideas (Possible selves, pathways, strategies, red, blue; explain idea of strategies doing now vs. those could try) |  |  |
| Reinforce student participation (why: some strategies are linking pathways, they can help us get from next year to adulthood) |  |  |
| Bridging |  |  | Trainer bridges last session and this session (sometimes it feels hard, impossible, so just have possible selves) |  |  | Listen |  |  |
| Elicit inoculation/vaccination discussion |  |  | Share ideas |  |  |
| Use Newsprint to write student ideas |  |  |
| Today will work on inoculating from difficulty by solving puzzles that feel impossible  |  |  | Listen |  |  |
| Reveal preprinted newsprint (Inoculation) |  |  |
| **Solving Puzzles, Puzzle 1** |  |  |  |
|  |  |  | Provides puzzle activity instructions |  |  | Listen |  |  |
| Passes out puzzle 1 |  |  |
| Reads out loud |  |  | Listen |  |  |
| Asks students to work in groups to figure out how to solve (move to groups) |  |  | Students are with partners or in groups |  |  |
| Reinforce cooperative participation, effort, ideas |  |  | Work in groups |  |  |
| Have students regroup (orient to front) to give their plan of action and talk through how far they got in trying to solve the problem |  |  | Multiple groups share out loud |  |  |
| Elicit discussion of feelings when solving something difficult |  |  |
| Have multiple students walk through Puzzle 1 solution |  |  |
| Use Newsprint to write out student plans, possible solution paths (or have students do it)  |  |  |
| Reinforce many ways to solve |  |  |
| Reinforce that seems impossible before trying |  |  |
| **Solving Puzzles, Puzzle 2** |  |  |  |
|  |  |  | Get help passing out Puzzle 2 |  |  | Help w/ passing out puzzle 2  |  |  |
| Read out loud Puzzle 2 |  |  | Listen |  |  |
| Asks students to work in groups to solve |  |  |
| Reinforces cooperative participation, effort, ideas |  |  | Work in groups |  |  |
| Reinforces responses that move toward problem solution |  |  |
| Have students regroup (orient to trainer) and give their plan of action and talk through how far they got in trying to solve the problem |  |  | Multiple groups share out loud |  |  |
| Write out student plans, possible solution paths (or has students do it) |  |  |
| Write out grid, as a possible solution path, solves out loud with students |  |  | Share ideas |  |  |
| Reinforce multiple ways to solve the problem |  |  |
| Reinforce how impossible seems before trying |  |  | Listen |  |  |
| **Next session and goodbyes** |  |  |  |
|  |  |  | Summary Statement: everyday puzzles, seem impossible, sometimes need trial and error |  |  | Listen |  |  |
| Connecting Statement: next session we will practice dealing with everyday problems |  |  |
| **Completed necessary components of session in appropriate time** |  |  |  |  |  |  |  |  |

**Table S2.9**

***Session 9 (“Solving Everyday Problems”) Fidelity Checklist***

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Task** | **Y** | **N** | **Detailed Teacher Behavior** | **Y** | **N** | **Student Behavior** | **Y** | **N** |
| **Agenda hung** |  |  |  |  |  |  |  |  |
| **Opening** |  |  |  |
| Welcome |  |  | Greet participants and latecomers by name |  |  | Greet |  |  |
| Today is session 9 solving everyday problems  |  |  |
| Last session |  |  | Ask for what happened last session and why |  |  | Share ideas (Inoculation from difficulty so won’t get infected with the idea that difficulty means impossibility, difficult puzzles) |  |  |
| Reinforce student participation (the last session’s definitions/concepts, inoculation from thinking if it is difficult it is impossible. Can do it, often the really difficult is not impossible, need to start and answer some questions.  |  |  | Listen |  |  |
| Bridging |  |  | Trainer bridges last session and this session (Today - I am going to give you an everyday problem and you are going to think of questions that you need to ask before solving it. |  |  | Listen |  |  |
| Then I am going to ask you for everyday problems you have and we will use what we learned to map out questions to ask before solving it. |  |  |
| **Everyday Problem 1, Math Problem** |  |  |  |
|  |  |  | Have students move into groups |  |  | Students are with partners or in groups |  |  |
| Ask for Student help to pass out math problem  |  |  | Help pass out math problem |  |  |
| Read out loud math problem  |  |  | Listen |  |  |
| Give students newsprint/sheets to write questions |  |  |
| Ask students to consider the questions they need to ask themselves to solve this |  |  |
| Circulate, reinforce effort, asking questions |  |  | Work in groups |  |  |
| Have students move to one big circle  |  |  | Move |  |  |
| Have students hang up their newsprint or elicit their ideas and write it down |  |  | Multiple groups share out loud |  |  |
| Reinforce many solutions could do this as action goals: Because (adult image) I will (next year possible self) by (strategy) when and where during the day\_\_\_\_), could do as timeline, with obstacles and forks, could do as asking for adult help (positive models, negative forces). |  |  | Listen |  |  |
| **Everyday Problems 2** |  |  |  |
|  |  |  | Ask students to think about a school problem like the math problem they have faced or are facing now in school. |  |  | Listen |  |  |
| Have students write down problem, crumple it up and throw it on the floor in the middle of the room (should still be in circle) |  |  | Writes, Throws paper on floor/in bag |  |  |
| Trainer provides reinforcement, says: so many problems, everyone has at least one. |  |  |  |  |  |
| Trainer reads out 4 problems, group selects one  |  |  | Vote |  |  |
| Asks, what are questions to ask |  |  | Participate |  |  |
| Trainer stands with newsprint to write questions, writes in clusters by theme |  |  | Listen |  |  |
| Uses clusters to link back to the action goal, timeline and possible self activities and for coming up with forks in the road obstacles, models to ask for help, negative forces to avoid |  |  |
| **Next session and goodbyes** |  |  |  |
|  |  |  | Summary Statement: today everyday problems |  |  | Listen |  |  |
| Connecting Statement: more inoculation by looking at what you need to finish high school and get more training-like college |  |  |
| **Completed necessary components of session in appropriate time** |  |  |  |  |  |  |  |  |

**Table S2.10**

***Session 10 (“Solving Everyday Problems II: Graduation”) Fidelity Checklist***

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Task** | **Y** | **N** | **Detailed Teacher Behavior** | **Y** | **N** | **Student Behavior** | **Y** | **N** |
| **Agenda hung** |  |  |  |  |  |  |  |  |
| **Opening** |  |  |  |
| Welcome |  |  | Greet participants and latecomers by name |  |  | Greet trainer |  |  |
| This is session 10, ‘graduating’ |  |  |
| Last session |  |  | Ask for what happened last session and why |  |  | Share ideas (Solved math problem and everyday problems by asking, could use the PTS activities to do it.) |  |  |
| Reinforce student participation (why: we all have problems in school that we need to solve, need to think of solution paths to those problems) |  |  |
| Bridging |  |  | Trainer bridges last session and this session (Last session we began to think about everyday problems by asking questions and using PTS activities like timelines with forks in the road and obstacles, action goals, forks in the road and positive and negative models. Today we are going to work on another part of the inoculation, working on a plan for graduating high school) |  |  | Listen |  |  |
| **Graduating High School** |  |  |  |
|  |  |  | Ask students to divide into groups or turn chairs  |  |  | Students are in partners/groups |  |  |
| Explain activity (what does it take to graduate) |  |  | Listen |  |  |
| Ask students types of questions they might answer |  |  | Provide responses |  |  |
| Circulate and check on groups’ progress |  |  | Work in groups |  |  |
| Move to one circle |  |  | Participate |  |  |
| Elicit students responses, write on newsprint |  |  |
| Prompt more questions: What classes, anything else? How many classes? Anything else? Attendance? |  |  |
| Prompt more questions: Anything else? Behavior/citizenship |  |  |
| Reinforce how much students know |  |  |
| Ask for help to pass out high school graduation requirements for own location |  |  | Students help pass out |  |  |
| Read out loud |  |  | Listen |  |  |
| Ask for help connecting this to what students already said. |  |  | Share ideas |  |  |
| Repeats process with a second high school. |  |  | Participate |  |  |
| Highlights how not all high schools are the same but graduation requirements are the same |  |  | Listen |  |  |
| Facilitate connection of course names and content |  |  | Participate/Group discussion |  |  |
| **Going to College** |  |  |  |
|  |  |  | Explain task: So we figured out graduating high school, a lot of you mentioned college, so we are going to do the same thing, figuring out how to get from high school to college.  |  |  | Listen |  |  |
| Work with partner: What do you need for college? Classes? Grades? What else |  |  | Work in groups |  |  |
| Elicits and write responses on newsprint about what need for college |  |  | Participate |  |  |
| Passes out college entrance requirements |  |  | Review college entrance requirements |  |  |
| Helps link student statements to college |  |  | Share ideas |  |  |
| Repeats with another college, reading out loud the requirements and linking to student ideas |  |  | Participate |  |  |
| Makes connections between high school graduation requirements and requirements to apply for colleges |  |  | Listen |  |  |
| **Next session and goodbyes** |  |  |  |
|  |  |  | Summary Statement (today worked on what you need to finish high school and get more training-like college) |  |  | Listen |  |  |
| Connecting statement to next session (we will have a wrap-up session. Next session we will review all sessions and have a party  |  |  |
| **Completed necessary components of session in appropriate time** |  |  |  |  |  |  |  |  |

**Table S2.11**

***Session 11 (“Wrapping Up and Looking Forward”) Fidelity Checklist***

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Task** | **Y** | **N** | **Detailed Teacher Behavior** | **Y** | **N** | **Student Behavior** | **Y** | **N** |
| **Agenda hung** |  |  |  |  |  |  |  |  |
| **Opening** |  |  |  |
| Welcome |  |  | Greet participants and latecomers  |  |  | Greet trainer |  |  |
| This is session 11 ‘wrapping up and moving forward’  |  |  |
| Last session |  |  | Ask for what happened last session and why |  |  | Share ideas (Get through high school, graduate to college) |  |  |
| Reinforce student participation (why: wanted to see what was needed for high school and college, and begin to think about what our next year selves and strategies will be to succeed) |  |  |
| Bridging |  |  | Trainer statement of connection from last session to this session and overview of this session (last session we worked on planning for - high school and college by knowing the requirements. This is our last in school PTS session; this is our wrapping up and looking forward session. I will ask you what we did each session and why, what was best, what was worst and how to improve. This is also our PTS party). |  |  | Listen |  |  |
| **Party** |  |  |  |
|  |  |  | Provide food and other party materials |  |  | Eat |  |  |
| Ask to move desks/chairs to circle |  |  | Move desks to circle |  |  |
| **What did we do at PTS** |  |  |  |
| Review |  |  | Ask for what did in each of the previous sessions |  |  | Share or participate |  |  |
| Ask for help getting the right order |  |  | Share (should be different students) |  |  |
| Write on newsprint |  |  |
| Elicit a reason for each session, how connect |  |  |
| Give voice to students |  |  | Ask for: favorite sessions, least liked sessions, what to change about program |  |  | Share (should be different students) or participate  |  |  |
| Write responses on newsprint  |  |  |
| Explain a connection between all sessions |  |  |
| **Goodbyes** |  |  |  |
|  |  |  | Goodbyes |  |  | Say goodbyes |  |  |
| **Completed necessary components of session in appropriate time** |  |  |  |

**Table S2.12**

***CLASS-S General Score Rubric***

|  |  |  |
| --- | --- | --- |
| Low | Mid | High |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The low range description fists the classroom/ teacher very well. All, or almost all, relevant indicators in the low range are present. | The low range description mostly fits the classroom/teacher but there are one or two indicators that are in the mid range. | The mid range description mostly fits the classroom/ teacher but there are one or two indicators in the low range.  | The mid range description fits the classroom/ teacher very well. All or almost all, relevant indicators in the mid range are present. | The mid range description mostly fits the classroom/ teacher but there are one or two indicators in the high range. | The high range description mostly fits the classroom/ teacher but there are one or two indicators in the mid range. | The high range description first the classroom/ teacher very well. All, or almost all, relevant indicators in the high range are present.  |

**Table S2.13**

***Student-Level Report Quality of Delivery Items***

|  |
| --- |
| During Pathways, my teacher was… (1-strongly disagree, 5-strongly agree):  |
| …Enthusiastic |
| …Knowledgeable |
| …Warm |
| …Clear |
| During Pathways, my classmates were…(1-strongly disagree, 5-strongly agree): |
| …Enthusiastic |
| …Knowledgeable |
| …Warm |
| …Clear |
| In Pathways, my teacher… (1-not at all, 5-a lot): |
| …Listened to my comments |
| …Understood my problems |
| …Negatively criticized my ideas (reverse coded) |
| …Used specific examples |
| …Gave us all equal chance to participate |
| …Gave us the chance to answer questions other students raised |
| In Pathways to Success…(1-strongly disagree, 5-strongly agree):  |
| …I felt comfortable participating and asking questions …I could trust others to listen to what I had to say |
| …Others shared their experiences and difficulties working toward their futures |
| …Other students have the same problems I do |
| …What we talked about was relevant for me |
| …I felt concerned I would be negatively criticized by another group member (reverse coded) |

**Table S2.14**

**Observer Coded Quality of Delivery Rating-Scale for Take Home Point For Each Session**

|  |
| --- |
| **Session 1: Skills and abilities** |
| Take Home Point: You have some skills and abilities to help you succeed in the coming year and others do too. |
| **0** | **1** | **2** |
| Key point not evoked at all by activities | Key point was partially evoked but framing was unclear or inconsistent | Key point was evoked clearly and consistently; concepts are connected to student-generated examples. |
|  |  |  |  |
| **Session 2: Adult Images** |
| Take Home Point: We all have images of ourselves as adults in the far future. |
| **0** | **1** | **2** |
| Key point not evoked at all by activities | Key point evoked but framing and connections were unclear or inconsistent | Key point was evoked clearly and consistently; concepts are connected to student-generated examples. |
|  |
| **Session 3: Positive and Negative Forces**  |
| Take Home Point: Positive and negative forces make some adult images possible selves. Positive forces help us lay out paths for success and handling difficulties and setbacks; negative forces do the opposite, layout paths for failure and examples for how not to handle difficulties and setbacks. |
| **0** | **1** | **2** |
| Key point not evoked at all by activities | Key point evoked but framing and connections were unclear or inconsistent | Key point was evoked clearly and consistently; concepts are connected to student-generated examples. |
|  |
| **Session 4: Timelines**  |
| Take Home Point: The future is a path, current actions set up which futures are possible |
| **0** | **1** | **2** |
| Key point not evoked at all by activities | Key point evoked but framing and connections were unclear or inconsistent | Key point was evoked clearly and consistently; concepts are connected to student-generated examples. |
|  |
| **Session 5: Action Goals** |
| Take Home Point: We have some control over possible selves, but not hope and dreams. That control happens when we link the future with the present through specific action goals. |
| **0** | **1** | **2** |
| Key point not evoked at all by activities | Key point evoked but framing and connections were unclear or inconsistent | Key point was evoked clearly and consistently; concepts are connected to student-generated examples. |
|   |
| **Session 6: Possible Selves and Strategies** |
| Take Home Point: Strategies are actions you are taking now or could take to become your next year possible self. |
| **0** | **1** | **2** |
| Key point not evoked at all by activities | Key point evoked but framing and connections were unclear or inconsistent | Key point was evoked clearly and consistently; concepts are connected to student-generated examples. |
|   |
| **Session 7: Pathways to the Future**  |
| Take home point: Any strategies I’m doing (or could be doing) now to get to my next year possible self, also help me get to my adult possible self. |
| **0** | **1** | **2** |
| Key point not evoked at all by activities | Key point evoked but framing and connections were unclear or inconsistent | Key point was evoked clearly and consistently; concepts are connected to student-generated examples. |
|   |
| **Session 8: Puzzles**  |
| Take home point: Things can seem impossible and difficult, but can be solved by breaking them down looking for alternative ways to set up the problem. |
| **0** | **1** | **2** |
| Key point not evoked at all by activities | Key point evoked but framing and connections were unclear or inconsistent | Key point was evoked clearly and consistently; concepts are connected to student-generated examples. |
|   |
| **Session 9: Solving Everyday Problems** |
| Take home point: There are everyday choice points and difficulties that are obstacles to navigate on the path linking near and far possible selves. |
| **0** | **1** | **2** |
| Key point not evoked at all by activities | Key point evoked but framing and connections were unclear or inconsistent | Key point was evoked clearly and consistently; concepts are connected to student-generated examples. |
|  |
| **Session 10: Solving Everyday Problems II: Graduation** |
| Take home point: You can identify the steps to get from 8th grade to graduating high school. |
| **0** | **1** | **2** |
| Key point not evoked at all by activities | Key point evoked but framing and connections were unclear or inconsistent | Key point was evoked clearly and consistently; concepts are connected to student-generated examples. |
|  |
| **Session 11: Wrapping Up and Looking Forward** |
| Take home point: What I do now makes a big difference for attaining my possible selves for next year, for the next few years, and farther as an adult. Possible selves that are linked to strategies and to time and place of action become action goals. There are forks (choices) and roadblocks (failures) along the way. It will be difficult and may feel impossible, but asking questions helps break down what I need to find out and helps me connect to others – positive forces and models – as well as to learn from negative forces and models of what not to do. |
| **0** | **1** | **2** |
| Key point not evoked at all by activities | Key point evoked but framing and connections were unclear or inconsistent | Key point was evoked clearly and consistently; concepts are connected to student-generated examples. |

**Table S2.15**

***Student-Level Report Fidelity of receipt Items***

|  |
| --- |
| Response scale for items 1-7: 1= Not At All Confident, 5=Very Confident.  |
| 1. I can introduce myself in a way that emphasizes my skills. |
| 2. I can imagine myself as an adult (working, having family and friendships, having a nice lifestyle, and participating in my community). |
| 3. I can draw a timeline to get to my adult images, including obstacles and forks in the road. |
| 4. I can take action now to work toward my adult image. |
| 5. I can break down everyday situations into problems to be solved. |
| 6. I can ask for help making plans. |
| 7. I can plan my class schedule to meet my future goals. |
| Response scale for items 8 to 10:1= Strongly Disagree, 5=Strongly Agree. |
| 8. In the future I will experience difficulties and setbacks in my efforts to do well in school. |
| 9. In the future I have strategies to handle these difficulties so I know what to do next. |
| 10. In the future I can come up with alternatives when a setback happens. |

**Table S2.16**

***Student-Level Teacher-driven Classroom Climate for Subject Teachers***

|  |
| --- |
| Did you have [Teacher] as a teacher for a class other than Pathways to Success? (Yes or No)[If yes…]During classes other than *Pathways to Success* (for example, Science, Math, English or History), [Teacher] is... (1-strongly disagree, 5-strongly agree): |
| …Enthusiastic |
| …Knowledgeable |
| …Warm |
| …Clear |

**Section 3 -- Preliminary analyses examining the effect of demographics on Core GPA and course failure**

**Table 3.1 Effects of demographics on 7th grade Core GPA**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Predictor | B | SE | β | t | *p* |
| Hispanic | -0.44 | 0.18 | -0.31 | -2.49 | .01 |
| Black | -0.54 | 0.23 | -.024 | -2.39 | .02 |
| Asian | 0.38 | 0.20 | 0.21 | 1.91 | .06 |
| Multi-racial Ethnic | 0.36 | 0.63 | 0.11 | 0.57 | .57 |
| Free or reduced price lunch | -0.05 | 0.14 | -0.03 | -0.39 | .70 |
| Female | 0.27 | 0.06 | 0.31 | 4.81 | .00 |

*Note:* Dependent variable is Core 7th grade GPA; *∆R2*=0.24

**Table 3.2 Effects of demographics on 8th grade Core GPA**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Predictor | B | SE | β | t | *p* |
| Hispanic | 0.23 | 0.13 | 0.18 | 1.74 | .08 |
| Black | -0.67 | 0.18 | -0.32 | -3.64 | .00 |
| Asian | 0.22 | 0.16 | 0.13 | 1.39 | .17 |
| Multi-racial Ethnic | 0.23 | 0.42 | 0.08 | 0.53 | .59 |
| Free or reduced price lunch | 0.09 | 0.12 | 0.05 | 0.74 | .46 |
| Female | 0.24 | 0.05 | 0.30 | 4.72 | .00 |

*Note:* Dependent variable is Core 8th grade GPA; *∆R2*=0.21

**Table 3.3 Effects of demographics on change in Core GPA from 7th to 8th grade**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Predictor | B | SE | β | t | *p* | *∆R2* | *p* |
| Step 1 |  |  |  |  |  | .471 | .00 |
|  Core 7th grade GPA | 0.63 | 0.05 | 0.69 | 13.18 | .00 |  |  |
| Step 2 |  |  |  |  |  | .184 | .00 |
|  Hispanic | 0.61 | 0.11 | 0.46 | 5.51 | .00 |  |  |
|  Black | -0.19 | 0.14 | -0.09 | -1.37 | .17 |  |  |
|  Asian | 0.02 | 0.13 | 0.01 | 0.19 | .85 |  |  |
|  Multi-racial Ethnic | -0.30 | 0.39 | -0.10 | -0.76 | .45 |  |  |
|  Free or reduced price lunch | 0.21 | 0.09 | 0.11 | 2.45 | .02 |  |  |
|  Female | 0.05 | 0.04 | 0.06 | 1.32 | .19 |  |  |

*Note:* Dependent variable is Core 8th grade GPA

**Table 3.4 Effects of demographics on 7th grade course failure**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Predictor | B | SE | Exp(β) | Wald | *p* |
| Hispanic | 1.26 | 0.70 | 3.53 | 3.27 | .07 |
| Black | 2.32 | 0.90 | 10.18 | 6.71 | .01 |
| Asian | -0.19 | 0.81 | 0.82 | 0.06 | .81 |
| Multi-racial Ethnic | -20.35 | 40192.93 | 0.00 | 0.00 | 1.00 |
| Free or reduced price lunch | 0.47 | 0.89 | 1.61 | 0.28 | .60 |
| Female | -0.87 | 0.31 | 0.42 | 7.87 | .01 |

*Note:* Dependent variable is 7th grade course failure; Change in Cox & Snell *R2*=0.13

**Table 3.5 Effects of demographics on 8th grade course failure**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Predictor | B | SE | Exp(β) | Wald | *p* |
| Hispanic | 0.60 | 0.72 | 1.73 | 0.69 | .41 |
| Black | 1.94 | 0.86 | 6.95 | 5.05 | .03 |
| Asian | -0.29 | 0.85 | 0.75 | 0.12 | .73 |
| Multi-racial Ethnic | 0.55 | 1.63 | 1.73 | 0.11 | .74 |
| Free or reduced price lunch | -1.18 | 0.70 | 0.31 | 2.81 | .09 |
| Female | -0.99 | 0.34 | 0.37 | 8.52 | .00 |

*Note:* Dependent variable is 8th grade course failure; Change in Cox & Snell *R2*=0.11

**Table 3.6 Effects of demographics on change in course failure from 7th grade to 8th grade**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Predictor | B | SE | Exp(β) | Wald | *p* | *∆R2* | *p* |
| Step 1 |  |  |  |  |  | .158 | .00 |
|  7th grade  course failure | 1.97 | 0.37 | 7.20 | 29.14 | .00 |  |  |
| Step 2 |  |  |  |  |  | .040 | .14 |
|  Hispanic | -0.15 | 0.75 | 0.87 | 0.04 | .85 |  |  |
|  Black | 1.08 | 0.92 | 2.94 | 1.38 | .24 |  |  |
|  Asian | -0.31 | 0.88 | 0.73 | 0.13 | .72 |  |  |
|  Multi-racial  Ethnic | -19.562 | 40193.05 | 0.00 | 0.00 | 1.00 |  |  |
|  Free or reduced  price lunch | -1.13 | 0.85 | 0.32 | 1.77 | .18 |  |  |
|  Female | -0.68 | 0.37 | 0.51 | 3.38 | .07 |  |  |

*Note:* Dependent variable is Core 8th grade course failure; *∆R2*=change in Cox & Snell R-squared

**Section 4 – Additional analyses examining the effect of fidelity on change in 8th grade Core GPA**

**4.1 Analyses excluding students with imputed data**

We used two-step and three-step hierarchical multiple regression analyses to test the relationships between fidelity and 8th grade end of year Core GPA, excluding students with imputed data. As detailed in the top panel of Table S2.1, the simpler two-step model excludes covariates and showed a significant effect of fidelity (B=.026, SE=.006, β=.233, p<.001, 95% CI [.014, .037]). As detailed in the bottom panel of Table S2.1, the three-step model includes covariates and also showed a significant effect of fidelity (B=.020, SE=.005, β=.182, p<.001, 95% CI [.010, .030]).

Table S4.1

*Effects Of Student-level Fidelity on 8th Grade Core GPA, Excluding students with imputed data*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Predictor | B | SE | β | t | *p* | *∆R2* | *p* |
| Two Step Model |  |  |  |  |  | .455 | .00 |
| Step 1 |  |  |  |  |  |  |  |
| 7th Grade Final Core GPA | 0.60 | 0.05 | 0.68 | 12.12 | .00 |  |  |
| Step 2 |  |  |  |  |  | .053 | .00 |
| Fidelity | 0.03 | 0.01 | 0.23 | 4.35 | .00 |  |  |
| Three Step Model |  |  |  |  |  |  |  |
| Step 1 |  |  |  |  |  | .455 | .00 |
| 7th Grade Final Core GPA | 0.60 | 0.05 | 0.68 | 12.12 | .00 |  |  |
| Step 2 |  |  |  |  |  | .166 | .00 |
| Hispanic | 0.61 | 0.12 | 0.45 | 5.11 | .00 |  |  |
| Black | -0.24 | 0.17 | -0.10 | -1.37 | .17 |  |  |
| Asian | 0.07 | 0.13 | 0.04 | 0.50 | .62 |  |  |
| Multiracial-ethnic | -0.29 | 0.40 | -0.09 | -0.74 | .46 |  |  |
| Free or reduced price lunch | 0.21 | 0.09 | 0.12 | 2.38 | .02 |  |  |
| Female | 0.05 | 0.04 | 0.06 | 1.22 | .23 |  |  |
| Step 3 |  |  |  |  |  | .032 | .00 |
| Fidelity | 0.02 | 0.01 | 0.18 | 3.91 | .00 |  |  |

*Note*: Fidelity is computed at the student-level

**4.2 Analyses excluding smaller, special education classroom**

We used two-step and three-step hierarchical multiple regression analyses to test the relationships between fidelity and 8th grade end of year Core GPA, excluding students from the smaller, special education classroom. As detailed in the top panel of Table S2.2, the simpler two-step model excludes demographic covariates and showed a significant effect of fidelity (B=.026, SE=.006, β=.227, p<.001, 95% CI [.015, .038]). As detailed in the bottom panel of Table S2.2, the three-step model includes demographic covariates and also showed a significant effect of fidelity (B=.022, SE=.005, β=.189, p<.001, 95% CI [.012, .032]).

Table S4.2

*Effects Of Student-level Fidelity on 8th Grade Core GPA, excluding smaller special education classroom*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Predictor | B | SE | β | t | *p* | *∆R2* | *p* |
| Two Step Model |  |  |  |  |  | .461 | .00 |
| Step 1 |  |  |  |  |  |  |  |
| 7th Grade Final Core GPA | 0.57 | 0.05 | 0.60 | 11.23 | .00 |  |  |
| Imputed fidelity measures | -0.58 | 0.14 | -0.24 | -4.24 | .00 |  |  |
| Imputed 7th Grade Core GPA | 0.20 | 0.19 | 0.06 | 1.07 | .29 |  |  |
| Step 2 |  |  |  |  |  | .051 | .00 |
| Fidelity | 0.03 | 0.01 | 0.23 | 4.46 | .00 |  |  |
| Three Step Model |  |  |  |  |  |  |  |
| Step 1 |  |  |  |  |  | .461 | .00 |
| 7th Grade Final Core GPA | 0.57 | 0.05 | 0.60 | 11.23 | .00 |  |  |
| Imputed fidelity measures | -0.58 | 0.14 | -0.24 | -4.24 | .00 |  |  |
| Imputed 7th Grade Core GPA | 0.20 | 0.19 | 0.06 | 1.07 | .29 |  |  |
| Step 2 |  |  |  |  |  | .136 | .00 |
| Hispanic | 0.53 | 0.10 | 0.41 | 5.26 | .00 |  |  |
| Black | -0.23 | 0.14 | -0.12 | -1.64 | .10 |  |  |
| Asian | 0.03 | 0.11 | 0.02 | 0.25 | .80 |  |  |
| Multiracial-ethnic | -0.30 | 0.31 | -0.11 | -0.97 | .33 |  |  |
| Free or reduced price lunch | 0.12 | 0.09 | 0.07 | 1.46 | .15 |  |  |
| Female | 0.07 | 0.04 | 0.09 | 1.73 | .09 |  |  |
| Step 3 |  |  |  |  |  | .034 | .00 |
| Fidelity | 0.02 | 0.01 | 0.19 | 4.15 | .00 |  |  |

*Note*: Fidelity is computed

**Section 5 – Additional analyses examining the effect of fidelity group on change in 8th grade Core GPA**

**5.1 Analyses excluding students with imputed data**

To test the effects of fidelity group, excluding students with imputed data, we first ran an ANCOVA model without demographic covariates (*F*(2, 174)=14.80; *p*<.001, η2=.15) and then an ANCOVA that did include these covariates (*F*(2, 168)=11.60; *p*<.001, η2=.12). In each model, fidelity group was the independent variable and final 8th grade core GPA was the dependent variable. In both ANCOVA analyses, final 7th grade core GPA was a covariate. In the latter ANCOVA model, gender, free or reduced priced lunch status, and Hispanic, Black, Asian, and Multiracial-ethnic ethnicities were also included as covariates.

We followed up with three planned contrasts, contrasting threshold with midrange and practical maximum; and practical maximum with midrange groups. Given multiple comparisons, we applied Bonferroni adjustments to all *p*-values and confidence intervals. Being near the practical maximum mattered. Practical maximum fidelity was associated with significantly higher core GPA than mid-range fidelity (without demographic covariates (*F*(1, 174)=20.16, *p*<.001, 95% CI [.208, .693], η2=.10); with demographic covariates (*F*(1, 168)=10.48, *p*<.01, 95% CI [.075, .518], η2=.06)), and near threshold fidelity (without demographic covariates (*F*(1, 174)=22.80, *p*<.001, 95% CI [.228, .697], η2=.12); with demographic covariates(F(1, 168)=21.68, p<.001, 95% CI [.190, .601], η2=.11). In contrast, the difference between core GPA for students experiencing near threshold fidelity was not significantly different from students experiencing fidelity in the midrange (without demographic covariates *F*(1,174)=0.01, *p*=1.00, 95% CI [-.237, .262], η2=.00; with demographic covariates *F*(1,168)=1.17, *p*=.84, 95% CI [-.123, .321], η2=.01).

**5.2 Analyses excluding students in smaller, special education classroom**

To test the effects of fidelity group, excluding students from the smaller, special education classroom, we first ran an ANCOVA model without demographic covariates (*F*(2, 191)=16.05; *p*<.001, η2=.14) and then an ANCOVA that did include these covariates (*F*(2, 185)=13.21; *p*<.001, η2=.13). In each model, fidelity group was the independent variable and final 8th grade core GPA was the dependent variable. In both ANCOVA analyses, final 7th grade core GPA and dummy variables for imputed data were covariates. In the latter ANCOVA model, gender, free or reduced priced lunch status, and Hispanic, Black, Asian, and Multiracial-ethnic ethnicities were also included as covariates.

We followed up with three planned contrasts, contrasting threshold with midrange and practical maximum; and practical maximum with midrange groups. Given multiple comparisons, we applied Bonferroni adjustments to all *p*-values and confidence intervals. Being near the practical maximum mattered. Practical maximum fidelity was associated with significantly higher core GPA than mid-range fidelity (without demographic covariates (*F*(1, 191)=18.46, *p*<.001, 95% CI [.187, .668], η2=.09); with demographic covariates (*F*(1, 185)=9.60, *p*<.01, 95% CI [.064, .516], η2=.05)), and near threshold fidelity (without demographic covariates (*F*(1, 191)=28.33, *p*<.001, 95% CI [.282, .751], η2=.13); with demographic covariates(F(1, 185)=25.99, p<.001, 95% CI [.234, .656], η2=.12). In contrast, the difference between core GPA for students experiencing near threshold fidelity was not significantly different from students experiencing fidelity in the midrange (without demographic covariates *F*(1,191)=0.80, *p*=1.00, 95% CI [-.151, .329], η2=.00; with demographic covariates *F*(1,185)=2.89, *p*=.27, 95% CI [-.065, .374], η2=.02).

**Section 6 – Additional analyses examining the effect of fidelity on 8th grade course failure**

**6.1 Analyses excluding students with imputed data**

We used two-step and three-step hierarchical logistic regression analyses to test the relationships between fidelity and 8th grade course failure, excluding students with imputed data. As detailed in the top panel of Table S4.1, the simpler two-step model excludes demographic covariates and showed a significant effect of fidelity on course failure (B=-.071, SE=.027, Wald=6.77, Exp(B)=.932, *p*<.01, 95% CI [.884, .983]). As detailed in the bottom panel of Table S4.1, the three-step model includes demographic covariates and also showed a significant effect of fidelity on course failure(B=-.068, SE=.028, Wald=6.02, Exp(B)=.934, *p*<.02, 95% CI [.885, .986]).

**Table S6.1**

*Effects Of Implementation Fidelity on 8th grade course failure: Excluding students with imputed data*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Predictor | B | SE | Exp(β) | Wald | *p* | *∆R2* | *p* |
| Two Step Model |  |  |  |  |  |  |  |
| Step 1 |  |  |  |  |  | .164 | .00 |
| 7th Grade Course Failure | 2.06 | 0.40 | 7.87 | 27.21 | .00 |  |  |
| Step 2 |  |  |  |  |  | .034 | .01 |
| Fidelity | -0.07 | 0.03 | 0.93 | 6.77 | .01 |  |  |
| Three Step Model |  |  |  |  |  |  |  |
| Step 1 |  |  |  |  |  | .164 | .00 |
| 7th Grade Course Failure | 2.06 | 0.40 | 7.87 | 27.21 | .00 |  |  |
| Step 2 |  |  |  |  |  | .041 | .17 |
| Hispanic | 0.08 | 0.91 | 1.09 | 0.01 | .93 |  |  |
| Black | 1.41 | 1.17 | 4.11 | 1.47 | .23 |  |  |
| Asian | -0.36 | 1.07 | 0.70 | 0.11 | .74 |  |  |
| Multiracial-ethnic | -19.34 | 40192.93 | 0.00 | 0.00 | 1.00 |  |  |
| Free or reduced price lunch | -1.28 | 0.89 | 0.28 | 2.11 | .15 |  |  |
| Female | -0.74 | 0.40 | 0.48 | 3.49 | .06 |  |  |
| Step 3 |  |  |  |  |  | .029 | .01 |
| Fidelity | -0.07 | -.03 | 0.93 | 6.02 | .02 |  |  |

*Note*: Fidelity is computed at the student-level; *∆R2*=change in Cox & Snell R-squared

**6.2 Analyses excluding students from smaller, special education classroom**

We used two-step and three-step hierarchical logistic regression analyses to test the relationships between fidelity and 8th grade course failure, excluding students from the smaller, special education classroom. As detailed in the top panel of Table S4.2, the simpler two-step model excludes demographic covariates and showed a significant effect of fidelity (B=-.054, SE=.025, Wald=4.57, Exp(B)=.948, *p*<.05, 95% CI [.902, .996]). As detailed in the bottom panel of Table S4.2, the three-step model includes demographic covariates and also showed a significant effect of fidelity (B=-.056, SE=.026, Wald=4.64, Exp(B)=.945, *p*<.05, 95% CI [.898, .995]).

**Table S6.2**

*Effects Of Implementation Fidelity on 8th grade course failure: Excluding special education classroom*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Predictor | B | SE | Exp(β) | Wald | *p* | *∆R2* | *p* |
| Two Step Model |  |  |  |  |  |  |  |
| Step 1 |  |  |  |  |  | .137 | .00 |
| 7th Grade Course Failure | 1.64 | 0.36 | 5.14 | 21.30 | .00 |  |  |
| Imputed fidelity measures | 0.89 | 0.50 | 2.43 | 3.19 | .07 |  |  |
| Imputed 7th Grade Course Failure | -0.17 | 0.70 | 0.85 | 0.06 | .81 |  |  |
| Step 2 |  |  |  |  |  | .020 | .03 |
| Fidelity | -0.05 | 0.03 | 0.95 | 4.57 | .03 |  |  |
| Three Step Model |  |  |  |  |  |  |  |
| Step 1 |  |  |  |  |  | .137 | .00 |
| 7th Grade Course Failure | 1.64 | 0.36 | 5.14 | 21.30 | .00 |  |  |
| Imputed fidelity measures | 0.89 | 0.50 | 2.43 | 3.19 | .07 |  |  |
| Imputed 7th Grade Course Failure | -0.17 | 0.70 | 0.85 | 0.06 | .81 |  |  |
| Step 2 |  |  |  |  |  | .056 | .04 |
| Hispanic | 0.32 | 0.76 | 1.38 | 0.18 | .67 |  |  |
| Black | 1.44 | 0.90 | 4.22 | 2.47 | .11 |  |  |
| Asian | -0.18 | 0.88 | 0.84 | 0.04 | .84 |  |  |
| Multiracial-ethnic | 1.57 | 1.66 | 4.79 | 0.89 | .35 |  |  |
| Free or reduced price lunch | -1.41 | 0.77 | 0.24 | 3.40 | .07 |  |  |
| Female | -0.72 | 0.37 | 0.49 | 3.67 | .06 |  |  |
| Step 3 |  |  |  |  |  | .020 | .03 |
| Fidelity | -0.06 | -.03 | 0.95 | 4.64 | .03 |  |  |

*Note*: Fidelity is computed at the student-level; *∆R2*=change in Cox & Snell R-squared