

Growth of HSI Leadership through Character Building in a Community College & University Partnership: EduGuiding Successful Futures

Using an Online Mentoring Program to Aid in
Community College to University Articulation for
Minority Students



Center for Research in Engineering
and Technology Education



STEMGrow: funded by the Department of Education



- The STEMGrow program is a partnership between the University of Texas at El Paso (UTEP) and El Paso Community College (EPCC)
- Focuses on achieving the next generation of student engagement and professional preparation
- Supports determined men and women in the region to transition between EPCC and UTEP to improve the graduation rate of students in STEM fields
- Designed to ensure that students of all backgrounds, including minorities and those with disabilities, have appropriate STEM guidance
- Includes advising, learning support and effective instruction through senior year
- Empowering students to graduate with STEM degrees and to pursue related careers or graduate programs

Grit:

“tendency to sustain interest in and effort toward very long-term goals.”

- In effect, grit is a trait-level perseverance, resilience, and passion for achieving long-term goals.
- It is grit that fuels and sustains the effort toward one's goals.
- Academic success does not come easily and requires a dedicated investment of time, attention, energy, and effort, especially in engineering, biological, math, and other sciences that are generally perceived to be more time consuming or labor intensive.
- Getting STEM students to be more gritty is therefore a valuable goal of STEMGrow Program

EduGuide

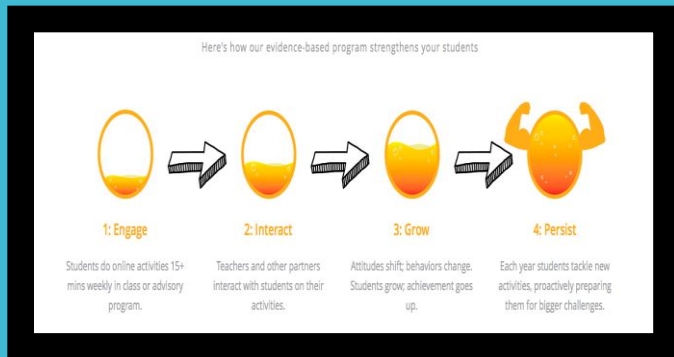


- **What is EduGuide?**
 - Online training program to strengthen students' core learning skills
 - A personal space to build a support network of teachers and mentors
 - Weekly activities raise student academic achievement in the classroom and beyond
- **Why use EduGuide?**
 - **Discover:**
 - Ways learning is connected in and outside of the classroom
 - How to break down goals into simple steps for success
 - Resources to help build strengths to accomplish goals
 - **Develop:**
 - Strategies to overcome future obstacles by preparing for them now
 - Strong leadership skills to practice using now for the future
 - A plan to look for opportunities, and measure progress on personal paths
 - **Connect:**
 - With teachers and other mentors to create a network of support
 - By reflecting on the past to learn more about oneself and others
 - New ideas through critical thinking and questioning to become stronger each day

How to use EduGuide

- Can be used on a computer, netbook, tablet or smart phone.
- Private account through email so can be accessed anywhere with an internet connection.
- A weekly 15-20 minute activity is released in your own personal path.
- EduGuide coaches, teachers and mentors engage in an online dialogue for interaction.
- Explore articles, videos, music, and more in individual activities.

How it Works



- Can be used on computer, netbook, tablet, or smart phone
- Private account through email so can be accessed anywhere with internet connection
- A weekly 15-20 minute activity is released in your own personal path
- Explore articles, videos, music, games and more in individual activities
- Reflect & respond to questions to explore thoughts, feelings, and new ideas
- Team Coaches, teachers & mentors, engage & interact online with students
- Explore new thoughts or ideas with those in your support network online
- Commit to changes & make them during the week to take EduGuide offline
- Participate in class discussions & complete projects on selected weekly topics
- Research weekly topics further by studying bonus blended learning options

Coaches and Mentors



- EduGuide coaches and mentors are include undergraduate and graduate students and program staff and faculty from both UTEP and EPCC.
- The coaches form a diversified group of individuals from all sorts of backgrounds ranging from teenagers to mature adults; minority males and females, some economically disadvantaged, many first generation college students, international students etc.
- Many of the student coaches were former STEMGrow students who had previously used EduGuide as mentees
- All with the same goal: inspire and motivate new college students to achieve their goals and empowering them to push ahead past any and all hurdles that they may encounter along the way.

Coaches and Mentors



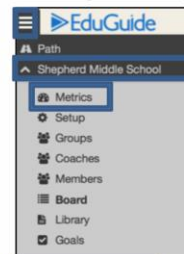
- All coaches and mentors receive both online web training from EduGuide experts and from previous mentors on the STEMGrow team.
- Coaches-in-training are given examples of how to respond to student comments; attempting to illicit more thought-out responses from students rather than “yes” or “no” answers.



Coaches
Tools to Track Team Progress

Start Coaching

Use the Metrics Page on the EduGuide platform to track team progress. Login to EduGuide using a coach account and follow the steps below to access the online metrics tools available to track individual and team progress. Determine engagement for coaches and students across the team. Use this information to drive planning in the coming week and strategize for team growth.



Open the main menu by clicking on 3 lines, next to the logo
Click on the team name to expand the coaching menu.
These tools are only available to teachers supporting students as coaches on the team. Students are not able to navigate to here since they have restricted access on the platform.

To review student progress and get started coaching, coaches click on 'Metrics' to access online mentoring tools and track progress.

Personal Metrics



SUSTAINED ENGAGEMENT

1. Discuss Expectations

Take a moment to re-introduce elements of the program to refocus students on learning objectives and purpose of the work together.

2 Growth Reminders

Use planning questions for targeted coaching in the first activity, Your Path to Growth, to remind students about their goals for the past month.

3. Focus on Follow Through

Go back to student responses not yet answered by the coach and re-ignite a previous conversation in the students Path Journal.

4. Be Insistent

Review and rephrase questions from coaches that have been left unanswered by the student to prompt a reply.

5. Quick Responses

Use the second 'Sort' filter to target the 'Newest' or most recent conversations to close communication time.

6. Growth Coaching

Setting Up EduGuide

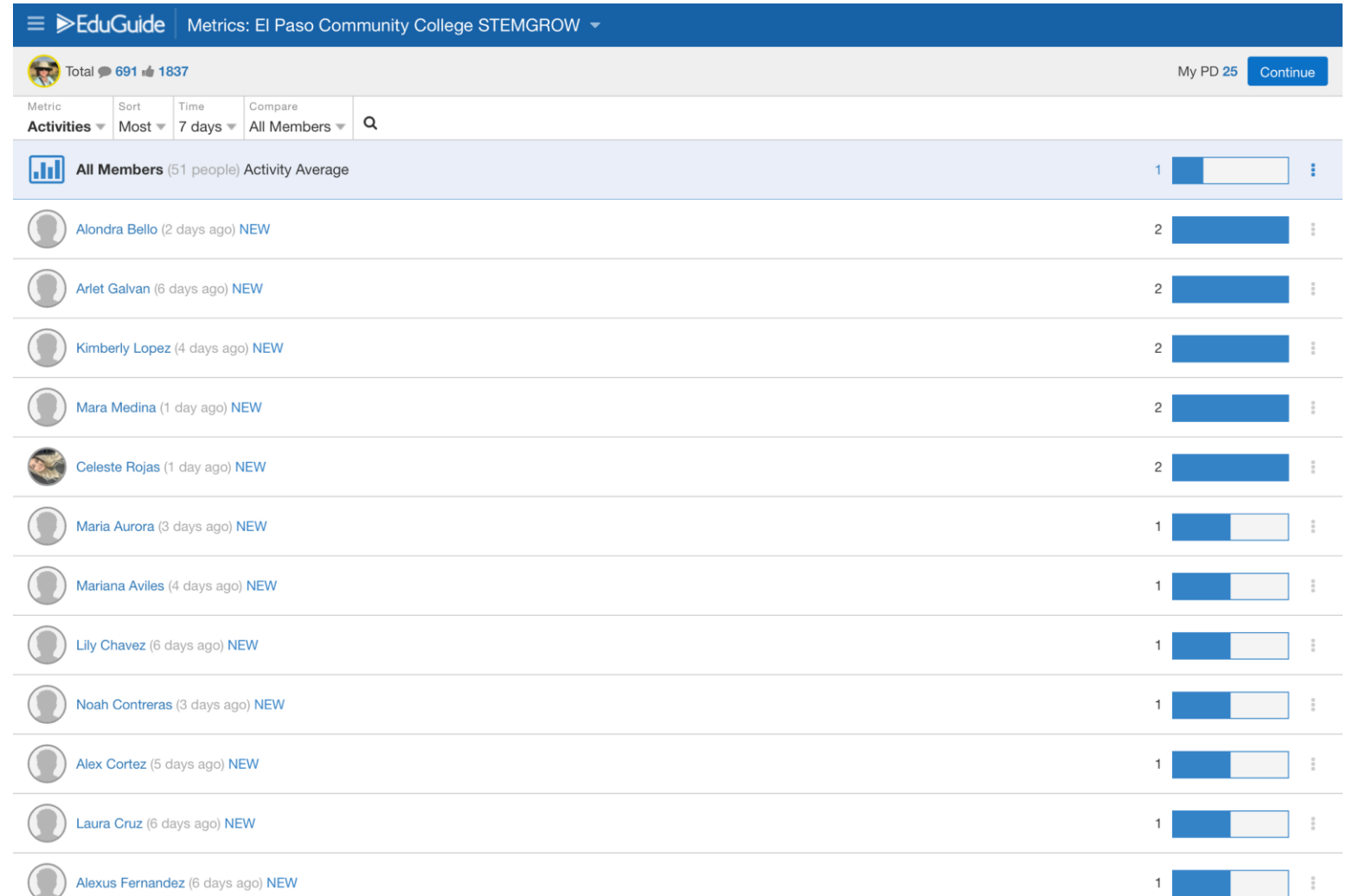


- **STEMGrow EduGuide groups:**
 - Summer biology bridge program students
 - Introductory Engineering, Biology and Environmental science classes
 - Set at both UTEP and EPCC
 - Classes at each campus mirror each other in curriculum
 - Some graduate courses have also been added this year
- **Coaches visit STEMGrow classes to introduce EduGuide**
- **Students meet all their coaches and mentors face to face**

What does it
look like:
What the
student sees:

The screenshot shows a social media interface. At the top left is a user profile icon and a yellow highlight bar. Below it is a blue message bubble with a play button icon and the text: "EduGuide Most goals take time — and focus. Remember the EduGuide Arrow? Which of the 3 areas do you think you need to focus on first to reach your sleep goal: more **effort** to follow through on your plan, better **strategies** to overcome obstacles, or getting more **support** from others? Why?". Below the message is a text input field with the placeholder "Share something..." and a plus sign button. To the right of the input field is a large blue arrow graphic pointing right. The arrow is composed of two parallel lines forming a wide base on the left and a narrow tip on the right. The word "Strategies" is written above the arrow, "Support" is written below the arrow, and "Effort" is written to the right of the arrow's tip. Navigation arrows are visible in the top right and bottom right corners of the post area.

What does it look like:
What the Coaches and Instructors see:



What does it look like:
What the Coaches and Instructors see:

EduGuide Metrics: El Paso Community College STEMGROW

Today 5 10

Celeste Rojas New Comments Weekly Poll Answers

Your Mind is Like a Muscle NEW

Show 4 previous steps

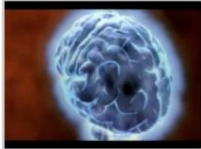
EduGuide Think about the last few years of your own life. What are a few things that you weren't very good at to start, but got better at with practice? [View all replies](#)

Celeste Rojas Something I can think about that I wasn't very good at was math, I didn't really try in my senior year of high school but once I got to college and had to take math as a ranking course I started studying and finding ways to understand it, which led to me having a GREAT grade at the end of the semester. NEW 15 hours ago 1

Helen Geller First of all, great for you! You didn't let this struggle with math stop you from moving ahead! Can you share some of the ways you discovered that helped you better understand math? Are you still using them today? now

Share something...

Show 2 previous steps



EduGuide In the video, what are 3 or more ways that learning something new is like building a path across a canyon? (You can re-watch the video to find them.) [View all replies](#)

Celeste Rojas 1. Tiny gap called Synapse-Electrical signal has to jump across this gap to continue path.(Like crossing a deep ravine) 2. First time signal crosses from one cell to other (same when crossing ravine)- First trip across is hardest, after crossing it gets easier.3. Learning is difficult, but after crossing again and again there is a more solid pathway and can do it whenever we want (Becomes effortless, like using a bridge to cross) NEW 15 hours ago 1

EduGuide Success

Table 1 provides the summary of responses from the STEMGrow students regarding the list of 14 growth areas and the following survey question: *“So far, how have you grown through the work you’ve done with EduGuide?”*

Table 1. Perceived Growth Attributed to EduGuide

Areas of Impact	No Growth	Little/Slight Growth	Moderate Growth	Considerable/Very Considerable Growth
1. More Self-motivated	2%	16%	43%	39%
1. Better Grades	21%	21%	29%	29%
1. Enjoy Learning more	12%	21%	29%	38%
1. More Prepared for Class	14%	17%	33%	36%
1. Participate more in Class	19%	19%	31%	31%
1. Complete more Schoolwork	11%	19%	24%	46%
1. Listen Better to Feedback	7%	21%	26%	46%
1. More Curious to Learn New Things	12%	17%	24%	47%
1. Better Attendance	24%	19%	14%	43%
1. Improved Relationships	18%	10%	29%	43%
1. Encourage and Mentor Others more	12%	12%	33%	43%
1. Manage Stress Better	13%	17%	31%	39%
1. Get over Setbacks Quicker	11%	12%	31%	46%
1. Happier	21%	14%	22%	43%

Positive Impact

- **The degree to which the STEMGrow cohort students perceived their significant growth in 14 vital areas that are directly and empirically associated with academic achievement and college success, is a major finding.**
- **The perceptual assessments by students lend a compelling credence to the pervasive impact of EduGuide strategies, activities, and resources in serving as the glue that enhances the comprehensive academic readiness of students, especially those from minority homes, with little or no history of college attendance and completions**

Student Comments:

” In your own words, how has your work with EduGuide helped you so far this year?”

- **I've learned a lot about myself, about how people have mentored me, how I learn things, and how I can change my mind from a fixed mindset to a growth mindset. I have also learned about how to be a good mentor to others, how to give and receive effective encouragement;**
- **It has helped me to realize that anyone can do or become anything, all we need is more commitment;**
- **It has improved the way I see my career. It helped me to know that I actually want to do and what my career is;**
- **I feel like I can manage my time better and it made me realize how I can grow as a person every day with small actions;**
- **Helped me stay motivated and focused on what is important;**
- **I've learned to better cope with situations and not become as stressed;**
- **It helped me to reflect on what I have overcome. It has also motivated me to keep trying and help others along the way;**
- **I have been more conscious on what I want to do, on what I do and what I don't do. This has helped me improve in my personal and professional aspects;**
- **It has made me more prepared to tackle learning obstacles. It also has made me reflect on my own struggles that have been holding me back;**
- **It reminded me to slow down and reflect on my own life, and it has even encouraged me to write in a journal. It helped me to take my own advice and to practice what you preach. Overall I liked EduGuide and how it encouraged me to better myself;**
- **Motivated me to work harder for what I want**
- **It has made me realize how many obstacles I've been able to get through by myself, and that nothing can stop me from reaching my goals;**
- **It has helped me to keep track of things that need to be done and the mentors offered help to me if I've ever needed it**

More Student Feedback

4. What do you enjoy (provide and discuss one or more facet) and not enjoy (provide one or more facet) about the EduGuide platform and the way it proceeds to coach you about learning and growing your success as a student.

I enjoy how EduGuide makes me realize that I have what it takes in order to be successful. Especially in the modules that make you realize that I have a growth mindset. I don't like how the modules are set up. I would like to help others with their problems instead of the false stories that always pop up.

4. What do you enjoy (provide and discuss one or more facet) and not enjoy (provide one or more facet) about the EduGuide platform and the way it proceeds to coach you about learning and growing your success as a student.

What I enjoyed about EduGuide was the fact that there were people commenting on your responses and I really like the fact that people can communicate with you and tell you what needs with you. What I did not like was the fact that I did not find a nice layout of the questions it seemed a bit boring.

4. What do you enjoy (provide and discuss one or more facet) and not enjoy (provide one or more facet) about the EduGuide platform and the way it proceeds to coach you about learning and growing your success as a student.

I really like the coaches on EduGuide replying to my responses. It makes it seem like these people really care about my success. I don't like how some of the EduGuide gets - really repetitive. I understand this helps learning; however a few times is more than enough.

5. What do you enjoy (provide and discuss one or more facet) and not enjoy (provide one or more facet) about the EduGuide platform and the way it proceeds to coach you about learning and growing your success as a student.

What I enjoy about EduGuide is its approach towards promoting student success and well being by presenting us with questions that incite self reflection. What I do not enjoy is that there is no clear and easily accessible way to observe your progress in the modules. Thanks for this feedback. 10

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4. What do you enjoy (provide and discuss one or more facet) and not enjoy (provide one or more facet) about the EduGuide platform and the way it proceeds to coach you about learning and growing your success as a student.

I do enjoy EduGuide because there are times where I like to write my thoughts and feelings instead of bottling it all up and EduGuide helps you express what you and there's nothing I don't like? Wow! Really?

5. What do you enjoy (provide and discuss one or more facet) and not enjoy (provide one or more facet) about the EduGuide platform and the way it proceeds to coach you about learning and growing your success as a student.

EduGuide is a fun way to learn more about yourself and gives you insight on things that you never thought you would feel so strongly about. One thing that I say isn't good about EduGuide is how repetitive some of the content is. Thanks for this feedback. 10

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or

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