



PATHWAYS IN TECHNOLOGY EARLY COLLEGE HIGH SCHOOL

Work-based Learning Initiative Catalyzes Rural Economic Growth

Roscoe Collegiate: *An Innovative Idea*

ABSTRACT

Education and economic development in rural America are current topics for research and discussion across the United States (Crowe, 2006; Harmon & Schafft, 2009; Mehra, Bishop, & Partee, 2018; Roberts, 2016; Schafft, 2016; Schafft & Biddle, 2013; Torres et al., 2013). Such research demonstrates that rural education both affects and is affected by the rural community in which it resides. This reciprocal relationship can be either mutually beneficial or mutually inhibiting; as the quality of one increase or diminishes, the quality of the other usually follows (Schafft, 2016).

A 2013 study of rural community colleges reported when colleges consider community needs along with the needs of students that their capacities improve while simultaneously improving student access and strengthening economic development (Torres et al., 2013). In a study of economic development in the northeast U.S., Crowe (2006) posits that communities can develop their local economy through self-development practices. However, an inhibiting factor to self-development is a lack of entrepreneurial activity. As industry calls for more employees with experience in both technical and soft skills, rural schools struggle to find places for students to participate in work-based learning as there is simply a lack of businesses.

How can a school district provide work-based learning opportunities in a community where opportunities to use high-demand occupational skills are scant? This innovative initiative catalyzed economic development in the West Texas community of Roscoe by creating four start-up businesses that greatly increased partnerships between the school district and community.

KEYWORDS

- *Work-based Learning*
- *Occupational Skills*

BLUEPRINT ALIGNMENTS

P-TECH Benchmark 5:
Work-Based Learning

T-STEM Benchmark 5:
Work-Based Learning



**PATHWAYS IN
TECHNOLOGY
EARLY COLLEGE
HIGH SCHOOL**

Work-based Learning Initiative Catalyzes Rural Economic Growth



How it Works

The first step was a community needs assessment. While beginning a STEM program, Roscoe Collegiate ISD conducted a needs assessment of high priority occupations in its geographical area as well as local community needs. Needs assessment continues as an informal, ongoing consideration for the district and its STEM initiatives. Throughout the five years, the efforts to equip students to work in high-demand occupations resulted in the creation of four start-ups which addressed community needs. The first to be established was a veterinary hospital responding to high-demand human and animal health occupations. A drone business addressing high-demand agricultural, multi-media, and training applications was followed by a welding business responding to high-demand industrial welding occupations, and finally, a community "maker-space" responded to high-demand design, construction, and machinist occupations.

A school district must also consider infrastructure needs and demands. In each start-up, infrastructure was problematic but not an inhibiting factor. The most challenging infrastructure test was a new veterinary teaching hospital. A local bond election received overwhelming community approval.

Acknowledgements

Andrew Wilson

Texas A&M University
Texas Tech University
Roscoe Collegiate ISD

Kellie J. Seals

Texas A&M University
Texas Tech University
Roscoe Collegiate ISD

Kim D. Alexander

Collegiate Edu-Nation

Gary E. Briers

Texas A&M University

Glen C. Shinn

Global Consulting Solutions



**PATHWAYS IN
TECHNOLOGY
EARLY COLLEGE
HIGH SCHOOL**

Work-based Learning Initiative Catalyzes Rural Economic Growth

How it Works

The bond paid for the construction of a biomedical teaching-research facility with four classrooms, multiple laboratories, along with a veterinary hospital for both small and large animal care. The other three businesses renovated existing district-owned buildings or leased vacant store-fronts.

Although the creation of the businesses was instigated by the school district, each business belongs to a private-nonprofit LLC corporation. Organizing the businesses as a LLC corporation removed it from the school finance. Therefore, revenue collected for services rendered and products sold go directly to the business. Financial accounting is essential because of state mandates concerning school ownership of individual businesses as well as state formula funding issues. Each LLC corporation has a board of directors who are education-minded and understand that the purpose of the businesses is to provide opportunities for students while supplying services and products to the community and beyond.

Results to Date

Initial progress was slow. As with any new program, pitfalls were discovered and lessons were learned along the way. Collegiate Edu-Vet, the veterinary hospital had been completed three years before the school district was able to find a veterinarian willing to risk such a creative collaboration. The hospital has now been open for 18 months and business is steady. Residents of the community have expressed their appreciation for a local option for their veterinary needs. Collegiate Edu-Drone has provided a drone curriculum to multiple school districts and colleges across the country. It has partnered with Office Depot to market the curriculum.

The drone business has also flown agricultural surveillance missions and filming missions as contracted services. Collegiate Edu-Weld filled the need after a lapse of nearly two years when the only welder retired and moved away. During its first six months of operation, students have constructed trailers, soccer goals, gates, and any number of other items for the local community. Collegiate Edu-Make-It is in its infancy, but students are using design tools to 3-D print and sell manipulatives for teachers and toys for children. At Christmas, the maker space was extremely busy with online orders for wooden art plaques and 3-D printed ornaments. The maker-space and welding businesses have also received orders for metal art from non-local customers.

Future Plans

The four start-up businesses have brought economic growth to the rural community. Since creation of the four new businesses, several new privately owned businesses have opened in the community. The city manager is working with the school district and other stakeholders to find an investor to build a hotel and conference center. The school district frequently hosts other districts that are interested in this innovative approach to increase school capacity and boost economic development. This positive reputation breeds more economic growth. Edu-Vet is installing a new embryology lab and is trying to secure a second veterinarian.



Work-based Learning Initiative Catalyzes Rural Economic Growth

Future Plans

Edu-Drone is working on a partnership with a local wind energy company to inspect wind turbines. A small local railcar refurbishing business has announced the addition of 80 jobs--the local population is only 1200 people--and has talked to the school district about collaborating with Edu-Weld and Edu-Make-It to produce parts. Roscoe Collegiate ISD will continue to assess the needs of the community and align them with opportunities for its students.

Resources Needed

In order to create a start-up business that serves the educational needs of students and fills the economic needs of the community, a school district needs a strong governing body willing to make tough decisions and patiently work to see them through. School administrators and teachers with an entrepreneurial spirit are critical components along with creative consultants and community partners who are not afraid to try something new. Grant-writers and financial consultants who can leverage their knowledge of and connections to philanthropic resources are extremely helpful. The sustained distress of small schools and rural communities should concern everyone. Coupling innovative education and community development provides a mechanism for reducing generational poverty, increasing educational access, and transforming rural America. It is time.

References

- Crowe, J. A. (2006). Community economic development strategies in rural Washington: Toward a synthesis of natural and social capital. *Rural Sociology*, 71(4), 573-596.
- Harmon, H. L., & Schafft, K. (2009). Rural school leadership for collaborative community development. *Rural Educator*, 30(3), 4-9.
- Mehra, B., Bishop, B. W., & Partee, R. P., II. (2018). A case methodology of action research to promote rural economic development: Implications for LIS education. *Journal of Education for Library and Information Science*, 59(1), 48-65.
- Roberts, T. G., Harder, A., & Brashears, M. T. (2016). American Association for Agricultural Education national research agenda: 2016-2020. Gainesville, FL: Department of Agricultural Education and Communication.
- Schafft, K. A. (2016). Rural education as rural development: Understanding the rural school- community well-being linkage in a 21st-century policy context. *Peabody Journal of Education*, 91(2), 137-154.
- Schafft, K. A., & Biddle, C. (2013). Place and purpose in public education: School district mission statements and educational (dis)embeddedness. *American Journal of Education*, 120(1), 55-76.
- Torres, V., Viterito, A., Heeter, A., Hernandez, E., Santiague, L., & Johnson, S. (2013). Sustaining opportunity in rural community colleges. *Community College Journal of Research and Practice*, 37(1), 3-17.