A Research Partnership: Experience in Washington County PA

Charles J. Vukotich, Jr., MS
Project Director,
School Based Research and Practice Network
Senior Project Manager
School of Medicine
University of Pittsburgh
Pittsburgh, PA

Grace M. Lani, MPM
Director of Curriculum and Instruction
Canon-McMillan School District
Canonsburg, PA

Abstract

Schools are valuable venues for research institutions. Research can also be beneficial to public schools. School administrators should be proactive in identifying research topics and establishing standards and expectations for the university researchers. This article describes the partnership between a university researcher and a K-12 director of curriculum and instruction over a six year period.

Key Words

School based research, university partnerships, research partnerships

Introduction

There is substantial literature with research and the community; however, the literature for school-based research is small, seeming to be oriented to universities and investigators and not school administrators at the primary and secondary level (Turley and Stephens, 2015).

A framework for conducting research in collaboration with schools is essential for success. The pioneering work of Israel in defining community based participatory research (CBPR), where investigators work with the community to establish research goals and conduct the investigation, is well known. (Israel, 2001).

Successful school research must use a CBPR approach. Vukotich has previously developed a significant framework for conducting research with schools, but this is intended primarily to guide university investigators. (Vukotich et al, 2014).

The authors are a researcher who has spent more than 10 years doing research in schools, and a Director of Curriculum and Instruction, who has provided a venue for some of this research. This paper explores the development of the research partnership between these people and their institutions, beginning with their introduction and going through successful completion of a research project.

It is intended to speak to school administrators, providing practical advice for proactively approaching research, developing of research relationships, and conducting research in their school districts.

This paper provides school administrators with a framework for school-based research, parameters of good research, and advice on what they should expect from investigators coming into their schools.

Forming the Partnerships

In 2008, the University of Pittsburgh created the School Based Research and Practice Network (SBRPN). The purpose of this network was to create research partnerships between K-12 schools and the University, and to better understand the research environment in K-12 schools.

One major factor in creating any partnership is to find common interests. SBRPN set out to determine if school administrators were interested in research, the extent to which they were interested, and what they wanted to know or better understand. The research community had rarely taken the time to ask school administrators these questions.

While some school districts had participated in research projects with universities and their own staff, none considered themselves research institutions but rather instructional institutions. SBRPN asked district administrators what questions they might want answered by investigators. Additionally, SBRPN set out to create a regional research agenda, seeking the input of school officials within the five-county region that forms the greater Pittsburgh area.

The goal was to meet with school districts in and surrounding Allegheny County. This area consists of approximately 250,000

school-aged children. SBRPN met with 57 public school districts and the schools in the Diocese of Pittsburgh along with 10 private/charter schools. These districts are highly variable in size, from less than 1,000 to more than 25,000 students, and represent urban, suburban, and rural communities.

Superintendents received letters, e-mails, and phone calls to set up initial meetings. Some superintendents were quick to respond; others required much persistence. As the Project Director of SBRPN, Charles Vukotich scheduled introductory meetings with area superintendents.

Second meetings were often scheduled to talk with larger district leadership teams regarding their research interests and concerns. These were conducted as focus groups to maintain scientific integrity to the experience. These meetings led to the publication of reports and scholarly works including this one. (More information can be found at www.cphp.pitt.edu/sbrpn.html.)

Vukotich met Lani in the meeting with the Canon-McMillan leadership team. As discussion developed, it became clear to Lani that there were commonalities between Canon-McMillan and the University, and that a partnership with the University on some topic of mutual interest might be worthwhile.

In 2011, the University of Pittsburgh submitted a grant to study how children spread influenza in schools. This study focused on developing policy and program guidance for schools on pandemic influenza, and could also have implications for seasonal flu.

Many studies have been conducted on *how* influenza spreads, but these have never been quantified in ways that could be used to make accurate models, that could be used to make predictions and drive policy and practice for schools. This grant application was accepted and became the Social Mixing and Respiratory Transmission (SMART) in Schools Project.

Canon-McMillan School District seemed like a natural partner, based on their interests, and open-minded attitude, so Vukotich contacted Lani. She was initially intrigued by the concept of participating in research associated with public health, but she was also skeptical that a project could fit within the confines of her schools. The district had participated in numerous research projects for educators' doctorate programs, along with a few other researchers outside of schools of education; however, each were directly related to student learning.

All new initiatives within the district were also supported by educational research. Therefore, research was not new to the district, but it would be a new experience participating in research beyond direct instruction.

Lani was interested in participating because attendance and student health were priorities of the district. Lani had been an elementary principal and noticed that it seemed that illness spread from student to student in isolated environments, but her conclusions relied only on her observations.

She had never used a specific protocol to determine when or if she should restrict movement in the building to localize further spread of illnesses. She indicated that having a protocol to follow would be helpful for school districts to determine when practices should be altered to minimize the spread of infectious diseases. It seemed clear that the SMART team would be able to answer the school district's questions.

The first year of research involved asking students to keep detailed contact diaries identifying who they had contact with on the previous day and quantifying that contact (e.g., boy or girl, adult or child, grade level, type of contact, any shared items, length of interaction). On "mote days," students wore electronic tags (motes) that measured when they were in close contact with other students during the school day. Year 2 required increased student participation, with additional diary days and students taking the electronic tags home overnight. The latter made the news media, as this was the first time that this had ever been done.

University staff conducted surveillance of student absences for signs of influenza and tested students for flu; they also held daily, random student interviews to see who they had been in contact with, especially focusing on students with flu-like illness.

With this research protocol, Lani immediately identified two main challenges. First, confidentiality is mandated for schools and needed to be maintained. The SMART team and Canon-McMillan worked together to draft a letter and disclosure statement for parents that met University institutional review board considerations, as well as the needs of the district.

Care was taken to ensure students were only identified by number and not by name; any identifiable data were maintained on secure servers. Analysis was done using de-identified data.

The second challenge required that research have a minimal impact on the school day. The team goal from the onset was to ensure that SMART would protect the academic time for both students and teachers. Multiple schools were involved, and it was understood that each school was different.

The SMART team listened to Canon-McMillan administrators' needs and was able to provide a research project that worked for each school's unique situation. Surveys were kept brief to account for minimal student interview time.

These interviews, along with swabbing the nose for influenza, were conducted in the morning before school began, during recess, or when teachers identified specific times during their day when students were not academically engaged. This often changed daily, and the SMART team adhered to teachers' suggestions to accommodate their needs. Flexibility was a key component for SMART's success.

Throughout the project, a few "mote days" were identified in which students wore electronic tags to track their movement throughout the building. Because this only required students to wear the device, it did not impact any academic time. The SMART team distributed and collected the electronic tags at the beginning and end of each day. Problems were averted because of the open dialogue and regular communication between the SMART team and the administrators and teachers. SMART staff was receptive and quickly adapted protocol to alleviate any concerns.

One great example of the communications process involved incentives to students for participation. Vukotich had originally considered using small items as incentives, like pens, bags, etc. Lani suggested that a drawing for one larger prize, like an iPad, would be more exciting to students. Vukotich altered the program rewards through her suggestion. SMART provided iPads as incentives for students, which were universally well received.

This incentive has been successfully used in other projects by Vukotich and supports the idea of a true partnership. Good and continuous communications is essential for any district and research team who might be interested in working together.

Results/Discussion

In this research, SBRPN found that schools have a broad range of research interests. School staff members are curious about how research can help their students. As Vukotich visited districts to gather data on their research interests, fifteen of 57 public school districts (26%) reported that they participated in recent or current research projects. This indicates that there are few partnerships between research institutions and public school districts.

SBRPN found that districts can be very open to consideration if projects are appropriate and designed around students and their wellness. Focusing on providing districts with effective solutions to the problems they confront daily is essential. The top 10 issues of interest were:

1) mental health
2) wellness, illness, and fitness
3) obesity
4) parental involvement
5) technology effectiveness
6) school readiness and kindergarten
7) anxiety
8) daily and yearly school structure
9) absenteeism
10) testing

For districts to welcome research, administrators should have set expectations for the investigator, ensure that the research to be conducted has benefit to the school district and community.

School administrators should require investigators to be sensitive to the learning community of the school by: (1) minimizing disruption of students, (2) minimizing use of class academic time, (3) creating little or no work for the school staff, (4) creating detailed and appropriate consent processes, (5) maintaining strict confidentiality, and (6) communicating effectively with teachers, staff, students, and parents. (Vukotich and Stebbins, 2011)

The SMART project was a success at Canon-McMillan. Student participation was high (90%). Communication was key. Parents, students, staff and faculty were all well informed through print materials and speakers at parent meetings. There was a productive team atmosphere. Meetings, both impromptu and scheduled, were advantageous and fostered an environment in which everyone listened to one another to make adjustments to better the project.

Communication didn't end with the cessation of research activities. SMART provided reports to Canon-McMillan School District, describing its findings, including recommendations for policy and practice changes. Summary reports were provided to parents, and research findings have been published. These reports and other program materials for SMART can be found at www.smart.pitt.edu.

Conclusions

School administrators should expect investigators to be willing to extend the partnership beyond using students as research subjects. Research universities should be able to extend the opportunity to share resources with the districts. SMART was able to provide health professionals to answer questions and provide

professional development for district nurses, physical education and health teachers, in addition to offering instructional opportunities. SMART also provided detailed and meaningful reports on the results of the research.

The SMART experience was very innovative for the Canon-McMillan School District. When school administrators can't see a direct correlation to what is going to happen and how it will help them, it's very challenging for them to agree to participate in a project. SMART bridged the gap and made that connection.

Schools must be visionary and believe in the product, even if the product may not be of direct benefit to the school, but may benefit the community and advance knowledge. SMART research may affect future policies for districts and schools, not only across the region, but across the nation.

School administrators should be proactive in determining what they would be interested in learning, their concerns for research, and the conditions they would impose on researchers. They should create a research agenda, which would also be shared with investigators who approach the school administration seeking to do research.

Schools should not be timid in approaching local research universities to explore the questions they want answered.

In response, universities may identify existing research that could answer these questions. They should be willing to incorporate these questions into existing research, use them in as part of grant proposals, or even seek funding opportunities, which would address these questions.

When school districts and a university talk to one another, it may encourage universities to look at new research fields and prompt school administrators to ask questions they had not previously considered.

Author Biographies

Charles Vukotich, Jr. has over 40 years in public health with 30 years at Allegheny County Health Department (retired) and 11 years at the University of Pittsburgh. He has studied school children and influenza and in doing so, the complexities of doing school-based research. E-mail: charlesv@pitt.edu

Grace Lani has been an administrator for the Canon-McMillan School District, Canonsburg, PA for eleven years, now serving as the Director of Curriculum and Instruction. She serves on the Business and Education Advisory Council for The Challenge Program and is an Adjunct Professor for Waynesburg University's Graduate School of Education. E-mail: lanig@cmsd.k12.pa.us

References

Israel, B. A., Schulz, A. J., Parker, E. A., & Becker, A. B. (2001). Community-based participatory research: Policy recommendations for promoting a partnership approach in health research. *Education for Health*, *14*(2), 182-197. Retrieved from http://depts.washington.edu/ccph/pdf_files/EducforHealthIsrael.pdf

Turley RNL & Stevens C. (2015). Lessons from a school district-university research partnership: The Houston Education Research Consortium. *Education Evaluation and Policy Analysis*, *15*(37), 6S-15S.

Vukotich C, J. & Jr, Stebbins S. (2011). Schools and research: Are they interested? The Allegheny County, PA Experience *ERS Spectrum*,*29*(4), 29-35.

Vukotich, C. J., Jr., Cousins, J., & Stebbins, S.(2014). Building sustainable research engagements: Lessons learned from research with schools. *Journal of Research Practice*, *10*(1), Article M1., 2014 Retrieved from http://jrp.icaap.org/index.php/jrp/article/view/381/324