Sixth Period: Statistics

"Students, standardized test scores increased by 12 percent on completion of the project."

"Attendance increased from 87 percent to 95 percent over the term of the project."

"Students demonstrated a deeper understanding of the material with 76 percent receiving mastery-level scores compared to only 54 percent in the control group."

Data collection, analysis, and presentation are vital components of any grant project. Without data, it is substantially more difficult to prove that a grant-funded project made the impact the writer intended. As a teacher, you probably already understood this. You know that progress-monitoring data, standardized test scores, and data-based decision making have made a significant comeback into modern classrooms. More and more often, teachers are required to collect various metrics to assess their students; some districts even spend up to fourteen full instructional days on testing over the course of the year.

Whether or not you agree with the importance placed on data in the class-room, there is no argument that the use of statistics can enhance, and in some cases make or break, your project proposal. Your statistics are often your connection to the world. Throughout this book, we have reminded you to take the readers into consideration. The public at large responds to data, and it is no wonder that the business leaders who operate many of the nation's grant-making organizations are data-driven leaders.

This chapter will guide you through the basics of using statistics to support your proposal, creating an assessment plan for your project, implementing that plan, reporting the results, and avoiding the common pitfalls that grant writers make when working with data.



People have made entire careers of working in education statistics and data collection. This chapter is meant to serve as a rough guide and cannot replace the valuable knowledge from a skilled professional. Collaboration is greatly encouraged.

Using Statistics to Support Your Proposal

In our data-driven world, statistics are essential elements in providing a solid justification for a grant proposal. The use of statistics can either make or break a proposal by either offering too little data-supported information to justify your project or by offering statistics that are unrelated to your projects. Here are a few guidelines for you to follow as you research and include data into your proposal:

- Do your research. There is a study out there for everything! Be sure that, when
 you find your data, it comes from a reputable source and is confirmed by
 other studies. Additionally, citing research from a rival entity is never wise.
 Try to learn the political landscape of the funding and research community by
 reading articles, responses, and seeing past-funded projects to determine
 what kind of statistics should not be included.
- *Include relevant information*. The information you include in your proposal should meet at least one of the following criteria:
 - o It provides essential context for a funder to understand my project.
 - o It provides logical reasoning and justification for my proposed project.
 - o It is the exact metrics my project seeks to address.

A common mistake is the inclusion of demographic data as an indicator of need. One project submitted to a funder included the following statement under the student's needs section:

Our students are 98 percent African American and 2 percent Latino and come from many single-parent households.

Never mind the poor grammar or the lack of a much-needed frequency or ratio for the "single-parent households" comment; this author is using demographic data to articulate need. A student's ethnic, racial, gender, religious, and so on breakdown *does not* indicate need. Certainly these facts and figures can be useful when providing context relevant to the project, but unless there is a clear, logical connection to the grant purpose, it is irrelevant.

- Know your audience. Some granting organizations will be very interested in research and will want to know if your proposal is rooted in proven findings or accepted practices. In other cases, the overuse of data can come off as pretentious and overbearing, turning off some funders. Whenever possible, try to connect with past awardees and see a sample of their proposal. Another option would be to take a close look at the RFP and get the sense if a funder would require lots of data to back up your project.
- Cite your data correctly. Choose a citation format and stick to it. Some grant
 proposals come out looking like a dissertation and others sound like a
 conversation between colleagues. Both are acceptable and have a place in
 the grant world, but be sure to give credit where credit is due in both
 instances. If you feel that using APA, MLA, or footnotes would be too
 obtrusive or cumbersome, make sure to work the citation into the narrative.

Statistics can be added into almost all portions of your grant proposal, as long as they follow the described guidelines. Regardless of the size of the grant or funder, it is always best as a professional educator to base your decisions on research. Show that in your proposal, when appropriate, and your likelihood of being funded will grow.

What Is the Purpose of Assessment in Your Project?

Assessment is the only method in which to prove the effectiveness and success of your project. Although you may feel that a project has made a significant impact on your target audience, you must be able to measure it in order to truly understand the degree of success or failure. There are other compelling reasons to create, implement, and report your assessment plan that can be best explained by viewing the assessment needs through various stakeholders' perspectives.

You

The very first person concerned with whether or not your project was successful is you! An effective evaluation not only allows you to determine if your proposed project was a success, but also provides valuable insight into the creation of future projects. As you become a seasoned grant writer, you will want to continue to learn from past projects. Keeping accurate records of your assessment plans enables you to build from project to project, increasing your likelihood of receiving future funds and also making you a stronger educator.

Additionally, administrators and colleagues are very interested in your project and can benefit from your assessments. For example, let's say you

were awarded a grant that allowed you to purchase and use a frictionless track for your physics classroom. Because of this, perhaps your data on student understanding of force is significantly higher than that of a colleague's across the hall. That colleague would be very interested in learning how you used the technology to create a better understanding of the material and try to replicate it. Your administration might even be pleased with your results and choose to purchase frictionless tracks for the entire physics department.

Your Funder

Your funder will want to know if you have met the goals and objectives you stated in your proposal. When a granting organization provides resources to you, they are making an investment in the goals you stated in your proposal, not just you and your students. Funders want to know if their investment has paid off.

Funders also report this philanthropic activity as progress toward their overall goals. The Boeing Foundation is able to include strides taken in science education through its charitable giving. Your data provide the basis for their existence and, in some cases, their ability to secure more funds for future projects. The same applies for the National Endowment for the Arts (NEA). If your project provides more dance instruction to youth and young adults, the NEA is able to count your project's results to their own progress in reaching their goals and objectives.

External Users

School boards, parents, community groups, and other funders may not be looking for your data, but I bet they would be interested! By reporting the success of your project in a data-based manner, other groups affiliated with the school are able to stake claim to the gains made, instilling a sense of pride in your school. You may also attract positive attention to your programs, creating more opportunities for projects and funding. Often forgotten, this group can prove to be valuable when presented to. Just because they don't ask doesn't mean they are not interested. Share your reports widely, especially if they are successful!

Overall Process

The assessment process breaks down to five steps:

- 1. Create an assessment plan.
- 2. Collect data.

- 3. Adjust the project according to your data (if applicable).
- 4. Analyze the data.
- 5. Report the findings.

As an educator, this process is somewhat familiar to you. Think back to the last lesson or unit you taught. Did you go through a similar process to determine how you would grade or assess the understanding of your students? Did you take a moment during the middle of the unit to adjust your lessons or schedule based on the scores students were receiving mid-unit? Afterward, did you take a deep look at your assessment data to determine if your unit or lesson was successful? Did you talk with your students or colleagues about it? The process you work through with your lessons is the same approach you should take with grant assessment.

Check out this example of a kindergarten music teacher's unit on "keeping a steady beat." Note to yourself which stages of the assessment process each action addresses.

Starting on Monday, my twenty-five kindergarten students will begin a week-long unit on "keeping a steady beat." This skill is often taught at this age and is in line with national standards. My overall plan is to complete a preassessment by having students march to the beat of a song and noting how many students are able to keep the beat in their feet. During the week, we will continue to explore movement through gross motor skills at varying tempos with the primary goal of keeping a beat. On Friday, I will play the same song as I did during the preassessment and note how many students are able to keep the beat in their feet.

On Monday, I noticed only twelve of my students were able to consistently march steadily to the beat with the selected song. On Tuesday and Wednesday we worked with new songs and continued to march. I noted, however, that many students were able to much more effectively pat the beat on their legs while sitting than they were when marching. On Friday, I conducted two final assessments using the song from Monday. First, students were asked to march to the beat. Then I replayed the song and asked students to sit and pat on their legs to the beat. When marching, nineteen students were able to keep a steady beat while marching. However, while sitting, twenty-two students were able to keep the beat effectively.

On the following Monday we discussed as a class if it was easier keeping a beat in our feet or in our hands. I discussed my assessment with a colleague familiar with early childhood brain development and learned that gross motor skills are being acquired during this age and there is great variance in ability from student to student. When talking with the kindergarten classroom teacher, he informed me that his class is very active and that he routinely has them sitting down when they are required to focus.

Although you may not write out a lesson or unit reflection in this manner, you probably go through this same type of thought process. Did you notice how

similar it is to our grant-writing assessment process? First, the teacher created the unit plan and then collected initial data. A mid-week analysis of the data revealed that a better strategy might be emerging and adjustments were made to the instruction and assessment plan to accommodate these data. Final data were collected, and on analyzing, the data showed an improvement in many students, though not all students were reached. In reporting to the various colleagues, the music teacher learned valuable insight into what made this unit successful with some and not with others.

The classroom example demonstrates that, as a teacher, you already know how to build these plans! Couldn't this example be an excerpt from a report to a granting organization? If the teacher was using grants procured through the National Endowment for the Arts with the objective of providing music education to students in the early grades, this activity is a clear and measurable outcome of the project's success.

Many of your grant proposals will somehow be linked to student achievement. By thinking through your grant as you would a lesson or unit plan, you will have already developed the skeleton of an assessment plan.



Do not wait until the end to complete your assessment plan. As you are writing other components of your proposal, note on a separate piece of paper how you are going to assess major areas of your project.

Step 1: Building an Assessment

How does this assessment plan differ from your lesson? What if your project is not directly tied to instruction? To help you answer this, go back to the RFP (the granting organization's mission and vision statement is useful here, too) and answer the following questions:

- What specific outcomes is the grant looking for and how am I meeting those outcomes? Although it may seem basic, ensure that your assessment matches not only what the RFP is asking, but also what your project is proposing. Many projects are thrown out because their assessment plans did not match the project's intent or the project description. This is often a by-product of waiting until the very end and rushing your assessment plan.
- What data are currently available in the topics the RFP is addressing? Regional trends make a great deal of difference when finding which data to measure.

Research what kind of data is being collected on your topic, and decide to follow suit or go against the grain. For example, would you want to report on ACT or SAT scores? Would you prefer to use a widely accepted behavior management data collection measure or develop your own method of measuring behavior in your school? Depending on the funder, location of the funder, and type of project you are applying for, these decisions change.

- *Am I meeting all of the requirements?* Some RFPs can get very lengthy. Double check to ensure you are assessing everything that needs to be measured.
- Am I measuring too much? If you are writing a \$1,000 grant for a new copy machine, do you need to measure the reading scores of your student body? Probably not. Make sure the work matches the reward.
- Is this data useful to this granting organization or to my project? It may be tempting to "pad the stats" by including assessments that you know are going to look positive, but remind yourself that these data are not valuable to you or the funder. Many funders want to see progress or growth in their selected fields. You will want to use the data to make future decisions and determine if you are going down the right path or not. By asking yourself if the data in question are important enough to include in an annual report or presentation to the school board, you can help decide if your data plan is high quality.

Qualitative versus Quantitative . . . That Is the Question

Quantitative data are measures of values or counts and are expressed as numbers. Qualitative data are measures of types and can be represented by a name, symbol, or number code. To put it more simply, quantitative data deal with numbers that can be measured, whereas qualitative data deal with descriptions that can be observed but not directly measured.

EXAMPLE

Quantitative: A class of thirty-one students has an attendance rate of 98 percent. Of those thirty-one students, 76 percent of the students receive free or reduced lunch.

Qualitative: Students in the classroom have brown, black, and red hair. Students receive As, Bs, and Cs on quizzes.

A high-quality assessment plan combines the use of qualitative and quantitative measures. Using a blend of these two general types of data enables a reviewer to understand the whole picture.

For example, when submitting a proposal for the creation of a student government association at a local middle school, the grant writer is able to include a variety of measures to ensure reviewers see the entire impact. They could include quantitative data such as the following:

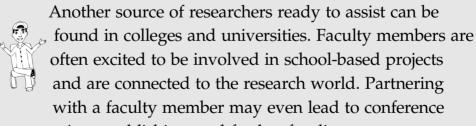
- Increased school attendance rate among participants
- Increased grade point average among participants
- Percentage of the entire student body engaged with the project
- Number of projects initiated by the student government association

Qualitative data may include the following:

- Increased confidence of students involved in the project
- Increased student participation in other school activities
- Growth of leadership skills among participants
- Increased perceptions of belonging and pride in the school

Although quantitative data is more concrete, and therefore easier to assemble, qualitative data can also be collected in meaningful ways. There are many methods to capture and indirectly measure qualitative data. Many tools, surveys, measures, and other scales are available publicly that allow researchers to assess the growth of observable dispositions such as those just described.

No matter which kind of data you work with, they are used to test an effective measure. It would be best to work with a researcher who specializes in these fields to help develop your methodology when assessing qualitative data. If one is not available at your school, check with your parent organizations or community organizations in your area.



presentations, publishing, and further funding.

The vast majority of grants available to teachers will not require elaborate assessment plans that need the assistance of an outside professional. It is still valuable to include qualitative and quantitative data in your assessment plan, even if you are not measuring something as ambiguous as school pride.

In most cases, successful teachers use quantitative data to *measure* their project and qualitative-esque data to *tell* the story. Here is one teacher's example from a recently funded project involving yoga in the classroom:

On implementing the yoga curriculum daily, student referrals for disciplinary action fell sharply from seven students per week to two students per week. Many students reported feeling "calm" and "in control" just weeks after the program began. This change in atmosphere was also accounted for in the decrease of student conflicts outside the classroom resulting in a 46 percent reduction in target students' time spent in detention. Additionally, students commented it was "easier to focus" during class resulting in a 22 percent increase on course assessments. One student reported "Having yoga at the start of my class gives me a break from the day. It's like a check-in place where I can get rid of everything that happened before class."

In this example, you can see that the teacher did not *measure* the qualitative data pieces but still included quotes that mention categorical data (emotions, feelings, perceptions) without quantifying it. Pairing those pieces of the story with quantitative data that were formally collected provides a reader with the complete picture.

Type of Data to Collect

Much of the data you already collect as a teacher can be used in your proposals. The following list provides some ideas of common data collected and reported on grants:

- Attendance rates
- Quantity of participants
- Test scores
- Grades
- Graduation rates
- Retention rates
- Growth on academic standards
- Number of parents and community members involved
- Performance-based measures
- Resources provided per pupil

Step 2: Collect Your Data

Once you have a solid plan and begin implementing your project, you should begin to collect your progress monitoring data. Collecting your data should be as simple as completing the steps indicated in your stated plan, but often, this is where fatal errors occur. Whether you are using surveys, completing interviews, reviewing test scores, or comparing attendance rates, be mindful not to fall into common pitfalls.

- Stay on schedule. Many awardees fall behind on their data plan because they are too busy implementing the program. Make rules for yourself to ensure you will collect the data. For example, if using surveys, make a rule that you must start the program with the survey before doing anything else. Include data collection into your lesson planning if applicable or appoint someone responsible to remind you to collect data. Many data points are time sensitive and cannot be done at a later time.
- Stick to your plan. You may find that your data are not showing the results you anticipated. Perhaps your project appears not to be working. Although you can often add data measures to capture the whole picture midway through a project, you must always complete what was approved by your granting organization. It is not unreasonable to think you may not have included everything needed in your assessment plan at the beginning and want to change items during the project, but you were awarded your grant in part because of your assessment plan. To change the plan would be to change the project, something funders do not tolerate. If adding items, it is always best to check with a program officer at your granting organization and ensure that your measures do not require a baseline measurement at the start of the project.
- *Keep it legal*. There are many laws and policies that protect individuals, especially children, from potentially harmful research. Many schools have institutional review boards or research review boards that ensure all research and data collection is in accordance with the law and the professional standards that exist in the research community. Student grades and test scores are often very confidential and may have to be treated anonymously. Know your school's policy on research as well as any state laws that may apply before collecting or sharing data.
- *Get permission*. Oftentimes, people must consent to research and have the option to opt out. This becomes even more important when minors are involved, because parent permissions are often a key component of the legality of data collection. Check with your administration to determine if you require special permission for data collection or not. Although you may not need permission to collect grades in your own classroom, you may need it for collecting grades in other classes or reporting grades to the public.



Keeping information anonymous is usually acceptable in reporting standards. When creating your plan and collecting your data, determine if it is possible to lump your data together to talk about a class or school as a whole instead of individual students.

There are many methods of collecting data, some of which will be natural to you as an educator and others that may require additional research. Following are some categories in which data can be found. Within each category, there are suggested methods you can use to collect data. Please note that this is not a comprehensive list. It is always best to work with a qualified professional or larger group when deciding your methodology.

Academics

Many funders are now looking for stronger ties to the academic success of your students and your proposed project. Whether you are writing a small grant for textbooks or a larger grant for a service-learning program, you may want to consider measuring the academic growth of your students.

A common signal to reviewers that an applicant is new or inexperienced with data is the attempt to prove causation. Very rarely would your program actually cause a result. Instead, your results may show significant correlation—that is, statistically significant results—to the implemented project. Be mindful when writing your proposal and reporting your results to avoid making causal statements if you cannot back them up.

Many of these methods should be fairly familiar to you. You could, for instance, wish to measure the change in test scores associated with a project or use some other academic achievement measurement to highlight the growth as it relates to your proposal. Other academic measurements can be tied to national standards or a teacher effectiveness framework, such as the Danielson Framework for Teaching.

Take a moment to list out how you currently measure your students' academic success. Limit yourself to the five most common methods you use

	regular basis. Keep in mind, you will need routine access to these data, so onal or statewide assessments with long timelines may not be the best choice.
1.	
2.	
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conv	Now, using a project of your own or using the project in the following, rert all five of your assessments into measurable outcomes that you would ade in your grant proposal. One has been provided for you as an example: **Grant prompt: You are writing to secure funding for new software that will enable you to create more meaningful and student-specific connections to your content area. **Example statement: Students will increase their word-per-minute scores by 25 percent during the course of the project as measured through pre- and post-DIBBELS assessments.
1.	
2.	
3.	
4.	
5.	



Check out the appendixes for more examples of assessment plans!

Schoolwide Information

Your proposal may be best suited for schoolwide data. Some examples are attendance rates, attendance at parent-teacher conferences, enrollment figures, teacher involvement, aggregate academic

growth, and anything else that would affect the entire school population. As previously mentioned, use discretion when using these metrics, because your project needs to match your assessment. For example, if your project benefits only the third grade, you might not want to include overall attendance. Instead, use only the third grade as a point of measurement.

Culture and Climate

Many large school districts have created assessments to measure a school's culture and climate. These measurements can cover everything from a student's sense of safety to the school's healthy food options. This emerging trend is on the minds of many philanthropic organizations and could create support for your proposal. Ask yourself a few basic questions to see if your project could include culture and climate measurements:

- Would my project create a safer space for students to grow?
- Does my project address behavior issues in my school?
- As a result of my project, would I expect to observe a lower referral rate for disciplinary action?
- Am I creating a college- or career-focused environment that can be measured through retention rates or some other related metric?
- Are my students completing homework on a more regular basis or turning in more assignments on time?
- Has bullying in my classroom decreased?
- Do students view our school as a safe, fun, supportive, enriching, and worthwhile place to be?

There are many tried-and-true measurements that exist to evaluate these questions. Usually, these topics are measured through the use of surveying, a common data collection technique. Take a few moments to research surveys that provide insight into these topics.

Whenever possible, use a vetted survey instrument instead of designing your own. Many people spend their professional careers developing, testing, and proving the effectiveness of their surveys or scales and make them publicly available for use. Using one of these certified instruments strengthens the validity of your data. If you are curious and want to dabble in making a survey or are using a small grant and don't intend to make correlation and causation statements related to your project, there is a survey template in appendix A using a five-point Likert scale. Be careful, though, in passing off your own surveys as valid instruments. Check with a program officer to determine the level of reporting needed.

Parent Engagement

Parents can be a key stakeholder in any grant project, and they should not be ignored as a potential source of data during the assessment phase. There are many ways to measure parent involvement in the school, including attendance at parent-teacher conferences, attendance at schoolwide events, time spent with their children on school-related activities, and participation in governance of a grant-funded project.

Community Engagement

We have deliberately separated the parents and the community within this book. Too often, parents and community are lumped together, creating a narrower worldview for the school. Instead, the community and its many resources should be viewed as a separate entity, rich with opportunities that would benefit your school.

Community involvement can be measured in a number of ways. There are many attendance metrics, such as attendance at meetings, school events, community events, and project-related events that provide useful information to the funder. Additionally, you can rate the school's involvement in the community through measurements, such as the number of community events completed, the number of nonparents involved in school and project governance, the population of students involved in out-of-school activities, and so on.

This is also a great area to bring back those culture and climate measurements. Did your students' perception of their community become more favorable? Have your students become exposed to more community-based jobs? Are students more civically engaged than before? Get creative when including the community, because it can add a great deal of substance to your project.

Step 3: Adjust the Project According to Your Data (If Applicable)

Your project may provide you with an opportunity to adjust at some point during implementation based on data you have been collecting. Of course, this largely depends on what kind of project you are completing, what the timeline for the project is, and if making a change is allowable and feasible.

Take a look at these examples and determine if an adjustment could be made to improve the results. If so, what would you suggest that adjustment be?

1. You have written and been awarded a grant that allows you to make a one-time purchase of ten new computers for an aging computer lab. In your proposal, your assessment plan indicated that "students' test scores on statewide assessments

will increase 7 percent in the first year across subjects" and that "community engagement will increase in our school by serving no fewer than one hundred community members in after-school job readiness trainings offered through a local partner organization."

Answer: No, an adjustment is unable to be made based on midterm data. Certainly, you can collect midterm data over the course of the year to determine if you are meeting your goals. You can even make adjustments to try to meet those goals, but unless the funder plans to take back the new computers if the goals are unmet, there is no reason (speaking strictly from the funding side) to adjust your project. Of course, the funder would hope you would adjust your use of the computers if indeed you were not meeting the goal, but, at the end of the day, an adjustment is not required by the funder because the purchasing was a one-time deal. 2. You have been asked to coauthor a one-year grant creating a partnership between your school and three others in the district. This grant would provide teacher training on classroom management strategies, fund stipends for two teachers in each building to conduct observations, and provide money for substitute teachers, allowing grade levels to meet at a common time. The funds will be doled out by quarterly invoices from your school to the funder. Along with the invoice, the funder requests progress-monitoring data to ensure the project is on task.

After the first quarter, you (having been put in charge of the data collection after reading this book) realize that your attendance from partner schools is below the quarterly projection by 15 percent and that referrals for discipline are at the same levels as the year prior.

Answer: Yes! You can and must collect interim data with this project. In fact, the funder requires it of you in order to receive your stipends. What modifications, then, can you make to the project? Should you withhold money to partner schools until their attendance is at the level it should be or is there another way? Do you think the teachers have had enough time to incorporate the new techniques into their classrooms yet or is it too early, causing an identical first-quarter referral figure as last year? What would you do?

Here is a final note on making adjustments to your program. You should never make a change that will dramatically alter the project from what was originally proposed, even if you never have to provide follow-up data to the funder. Funders make their decision based on your initial proposal and to dramatically change it would be unethical and potentially damaging when under consideration for future opportunities. When in doubt, check with a program officer before making any changes to ensure they are allowable.

Step 4: Analyze Your Data

At the end of your project, you will most likely be swimming in raw data. Now comes the time to analyze your data and determine if your project has indeed created the impact you articulated in your plan.

Important: This book will not provide a how-to approach on data analysis. Entire volumes are dedicated and available on this topic alone. You are encouraged to explore this topic in detail by taking a course at a local college or reading up on the subject. If you are in need of detailed methods of analysis, consider consulting with a professional in the field who would be able to donate some time and effort to your project. This would also create a great in-kind match for your project!

Remember that many of these items are already available to you as a teacher. Certainly your school has attendance and grade records. You may be collecting data for statewide assessments or interim testing already. Many times, these sources analyze the data for you and provide those results that can be copied over into a report.

If this is a foreign field to you, start simply by calculating items such as mean, median, and mode. Standard deviation and variance could provide a deeper look into your raw data, followed by regression analysis. Once again, if these concepts are unfamiliar to you, consult with a professional or explore the topics through the numerous online tutorials and available literature.

Step 5: Report the Findings

As mentioned at the beginning of the chapter, there are many stakeholders who will have interest in your results. You, your funder, and external users all have unique needs when it comes to reporting your findings.

Your needs. You may want to determine not only what succeeded and failed but also which elements specifically worked well and which items did not. You will most likely be just as curious about the minutia of your project as you are about the big-picture results.

Your funder. Your funder is primarily interested in if you have met the goals and objectives you outlined in your proposal and if you stayed on course with your project. Depending on your project's size, this could be very general, so adding additional evidence could help tell a deeper story. However, it is always best to report to funders exactly what they ask for, and then have additional research and reports ready if they ask for those.

External users. Depending on the audience, external users fall somewhere between your needs and your funder's needs. If an external user is a school administrator, he or she may be more interested in some of the gritty details, whereas a visiting school administrator, district official, or potential future funder may only require the broad strokes.

Let's look at an example and see what information you may want to report for each category:

You have been awarded a \$7,000 grant to implement the national Girls on the Run program in your school. In your proposal, you discussed that the program would recruit fifty female students to participate, that the school attendance rate of participants would increase, and that participants' self-esteem would rise in a statistically significant manner.

At the end of the program, you find that you were only able to recruit twenty participants instead of the fifty you desired. Additionally, the attendance rate of the twenty participants neither increased nor decreased in a significant way. However, participants' self-esteem did positively and significantly increase.

What information would you report to whom? What additional questions would you want answered, looking through the lens of each stakeholder category?

You. Although you already know the overall outcomes, you would be very curious to learn more about the minutia of the program that caused your findings to be what they are. For example, why was it difficult to recruit fifty girls? Is the age range too restrictive? Is the time commitment too much? Are there so many other activities going on that yours simply wasn't attractive enough? Perhaps adding a survey of the entire target population (third-through eighth-grade girls) or asking questions about their knowledge, assumptions, and level of attraction to the program would answer those questions.

Also, why didn't the attendance rate increase? Did your school have an attendance issue before (i.e., was it a realistic goal)? Did the twenty students who did participate consist of the most dedicated students in the school? Was there no incentive to attend school in connection with the program?

You should know the answers to these questions because they relate to your project. You may never put it in a presentation format, but they will certainly be nagging at you and be on the minds of those in your building.

Your funder. First and foremost, funders will be interested in the results in comparison with your stated goals. A funder may or may not be interested in

why you were unable to get more students or why the attendance rate did not increase. However, most funders would be very interested in what happened with their money!

Did you miss that? In your proposal you were awarded \$7,000 to support fifty students. However, during your project, you only worked with twenty. Did you end up spending the appropriate 40 percent (\$2,800) or did you spend the entire amount? What is your justification for that amount? Why were funds not reserved for future use or returned to the organization?

It is vital to get into the shoes of your funders. Of course they will be very happy that twenty young women received services, but they will be curious as to how you spent the rest of the money and that you were unable to spread the most good. When creating your report to funders, take a moment to either ask yourself questions as if you were the funder or ask a friend to play devil's advocate for you.

External users. In addition to the overall findings, an external user might be interested in what it would take to replicate this activity at another location, grow this activity at your school, or sustain it for future use. The external user may want to see how it connects to other school-related activities (academic areas or after-school programs) and what other services are similar to it in the area.

This is also the time to pull out the really positive portions of your findings and incorporate them into public documents. In this example, you may want to post the findings on increased self-esteem in a school newsletter, website, or other publicly accessible venue. Because you have more information available, it is ethical to highlight some of your achievements along with a short description of the program, provided you extend an opportunity to receive more information if a reader were interested.

Here are some other best practices to take into account when reporting your data:

- Have additional reports ready. Having some reports that outline broad strokes
 and having others that get into the details will save you time and frustration
 in the long run. Oftentimes, it is best to complete a detailed report and then
 pull from that one report to create multiple documents able to be sent to
 various audiences.
- Always have more research ready. When it comes to evaluation, it is never a
 good policy to do the bare minimum. If your project specifies completing
 only three or four assessments, be sure to add additional measures along
 the way. Don't forget about the value of qualitative data as a supplement to
 the hard numbers.

- Transparency is welcomed. Remember your ethical guidelines—the ones you bestow on your students daily. Some of your data may not show you the results you wanted. Although you do not have to advertise the shortcomings of a project, you can include those results in a report with an explanation of what went wrong, what adjustments will be made in the future, and other commentary that may be appropriate. It is always best to create a sense of transparency when it comes to the results of projects and the success or failure of an investment.
- Be prepared to take recommendations. Many stakeholders may want to add their two cents about your results, conclusions, and future projects. It is best policy to accept these with open arms, even if you have heard the same piece of advice thirty times before! By accepting feedback from stakeholders, you strengthen your relationship and, additionally, their likelihood of future support.
- Make it visual. Very few people want to stare at a blank document with no visual aids. Use appropriate graphs to dress up your reports and show the story your data are telling you. Additionally, use templates found in word processors to showcase your information. Using call-out quotes, graphs, photos, and text help you and your audience, exhibiting your professionalism and allowing the reader to appreciate the significance of your project.
- Make sure to use the right graphs. Although this advice may seem trite, many
 times teachers will use incorrect graphing techniques when trying to tell the
 story of their data. Take a moment and determine if your choice in graph
 (histogram, line, pie, bar) is the best option to show your data. Also, ensure
 that it tells the accurate picture of your data and does not lead to other
 assumptions.
- Get it edited. This document sums up your entire project. Make sure it is
 picture perfect and something you are proud to show to others. Even if a
 colleague is not proficient in data, you should ask him or her to review your
 report before submission to ensure that it is generally understandable,
 readable, and approachable.

Look in the appendixes for examples of reports provided to multiple users on the completion of grant projects and to put your ideas into practice.

Sixth-Period Review Guide

- When including statistics in your proposal, make sure to do the following:
 - Do your research.
 - Include relevant information.
 - Know your audience.
 - Cite your data correctly.
- Quantitative data are measures of values or counts and are expressed as numbers.
- Qualitative data are measures of types and can be represented by a name, symbol, or number code.
- A high-quality assessment plan combines the use of qualitative and quantitative measures.
- The four items to keep in mind when collecting data are as follows:
 - Stay on schedule.
 - Stick to your plan.
 - Keep it legal.
 - Get permission.
- You should never make a change that will dramatically alter the project from what was originally proposed, even if you never have to provide follow-up data to the funder.

Sixth-Period Exit Ticket

- 1. Which is *not* a part of the five-step assessment process?
 - a. Rework your assessment plan.
 - b. Analyze your data.
 - c. Collect your data.
 - d. Adjust your project accordingly.
 - e. None of the above.
- 2. True or false: A participant's age is not considered qualitative data.