PROGRAM EVALUATION MODEL
9-STEP PROCESS
by

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What Is Evaluation?

An evaluation is a purposeful, systematic, and careful collection and analysis of information used for the purpose of documenting the effectiveness and impact of programs, establishing accountability and identifying areas needing change and improvement.

Summative Evaluation

There are many types of evaluation, depending on the purpose, timing, and procedures used. A summative evaluation, sometimes called outcome evaluation, is conducted for the purpose of documenting the results of a program. Specific goals of a program are identified and the degree of accomplishment of those goals is documented. The results of a summative evaluation might point to changes that should be made in a program in order to improve it in subsequent implementations. The results of summative evaluations can specify program status and conditions for accountability purposes. The results can also be used as a needs assessment for the subsequent planning of changes in a program or of the introduction of new programs and interventions. The following table presents some questions that might be addressed by a **summative evaluation**.

When Conducted	Examples of Summative Evaluation Questions
After a program has been implemented and completed	What did the program accomplish?
	Did the program reach its goals and objectives?
	What impact did the program have on its recipients?
	What were the outcomes?
	Who benefited from the program?
	How much was the benefit?
	Was the benefit greater with this program as compared with another program?
	Did all types of students or clients benefit from the program?
	What were the positive outcomes?
	What were the negative outcomes?
	What should be improved/changed in the program?
	Does the benefit of the program warrant the cost?

Formative Evaluation
A formative evaluation, also known as process or implementation evaluation, is performed to examine various aspects of an ongoing program in order to make changes/improvements as the program is being implemented. This type of evaluation attempts to document exactly what is transpiring in a program. Data are collected and analyzed at a time when program changes can be made to ensure that the quality of the program implementation is maintained throughout. For example, if a career development program has been introduced in a school district, it is important to know to what extent the program has actually been implemented as designed. The following table suggests some questions that might be addressed in a **formative evaluation**.

When Conducted	Examples of Formative Evaluation Questions
While the program is ongoing – perhaps several times	Is the program being implemented as it was designed? Do the students or clients understand the program's concepts? What are the misconceptions about the program? Are all program implementers implementing the program in the same way? Is the program being implemented on schedule? Is there sufficient time to implement all aspects of the program? What aspects of the program do not seem to be working as well as you intended? Do program implementers need additional training on the program? Are there any negative outcomes surfacing?

Who Should Conduct or Lead the Evaluation Process?
In some instances an evaluation is designed to answer multiple questions at multiple locations with multiple types of individuals using sophisticated statistical techniques. In such cases it is best to bring in a professionally trained individual or company to assist with the evaluation. However, evaluation does not need to be complex, highly statistical and in need of specialized experts to be useful and worthwhile. The best evaluations are conducted by those who know and care about the program and its effects on students and clients -- that means you. In an age of increasing accountability, you need to show the worth of what you are doing and the impact that programs are having on your students and clients.

Evaluation Process—Overview
Effective program evaluation is a carefully planned and systematic approach to documenting the nature and results of program implementation. The evaluation process described below is designed to give you good information on your program and what it is doing for students, clients, the community and society. The process will help you think through the evaluation in a thorough manner before you begin to implement a program. It will help you document the impact of your program and use the results for program improvement. The suggested evaluation process contains nine steps:
1. Define the Purpose and Scope of the Evaluation
2. Specify the Evaluation Questions – What Do You Want to Know?
3. Specify the Evaluation Design
4. Create the Data Collection Action Plan
5. Collect Data

6. Analyze data
7. Document Findings
8. Disseminate Findings
9. Feedback to Program Improvement

The discussion below provides a brief description of each step. For more detailed information and an interactive tutorial click on http://www.acrnetwork.org/evaluation.htm at the ACRN website.

Evaluation Process—Step 1
Define the Purpose and Scope of the Evaluation

In general, the purpose of your evaluation should be to establish the outcomes or value of the program you are providing and to find ways to improve the program. Both a formative and a summative evaluation should be designed. Defining the purpose of your evaluation will help you focus and delineate the other steps in the evaluation process.

The scope of your evaluation must also be determined. It may be narrow or broad; it may focus on all students or targeted groups. A narrow, focused evaluation might seek answers to questions such as:

- Do all of our 10th grade students create a skills-based resume?
- Can our eighth grade students identify their career interests?
- How successful was our career day?
- Can ninth grade students describe the career pathways available to them at the high school?

The scope of your evaluation can also be very broad and reflect the goal statement of your school or the mission statement of an agency. For example:

Are all graduates of ABC High School prepared to enter the workforce or continue with further education and training?

Does the career development program promote academic success?

Does the career development program help reduce incidence of school violence?

The scope of an evaluation is often determined by the amount of resources available to you. The larger and more involved the evaluation, the costlier it will be in terms of energy and dollars. If minimal resources are available, consider a more focused and less involved evaluation process.

Evaluation Process—Step 2
Specify the Evaluation Questions—What Do You Want to Know?

It is important to craft your evaluation questions clearly and completely. Evaluation questions take many forms. Perhaps the easiest is to think of the evaluation questions on a small scale, like learner objectives. One of your goals might be to have every 9th grade student or every client learn their career interests using an interest inventory. An evaluation question might be: "How many of our students/clients have identified their career interests?" Evaluation questions are often broader and are focused on the larger picture or goals of the program rather than a small component of it. A larger evaluation question might be "How well has the career program prepared graduates to be successful in the world of work?" or "How well has our career development program helped middle school students transition to high school?"

Your evaluation questions can be inspired by several sources including:
- Program objectives
- Program goals
- Strategic plans
- Needs assessments that have been conducted
- Inquiries and priorities from an advisory council
- The mission statement of your school or agency
- National efforts such as the No Child Left Behind legislation or the National Career Development Guidelines
- Comparisons with national information such as achievement results of the National Assessment of Educational Progress (NAEP) or other national studies related to career development

Share your questions with colleagues and ask them to provide comments. This should help you clarify your questions and better assure that they are clear, understandable and worthwhile.

Sample Questions

Evaluation questions are specific to your program and goals. The following list offers some ideas you might adapt for your own evaluation. Remember, specify your questions clearly and in writing.
- As a result of participating in the middle school career development program, do students improve their school attendance and attitude toward school?
- To what extent do 9th grade students consider non-traditional occupations as part of their career exploration?
- How many students in 10th grade produce a career plan that is signed by them, their parents and their counselor or teacher?
- To what extent does our career guidance program contribute to a drug-free environment?
- To what extent do teachers integrate career information into the science curriculum?
- To what extent have the counselors in XYZ School District implemented the National Career Development Guidelines?
- Do students in schools with fully developed career guidance programs have higher academic achievement than students in schools with less fully developed programs?
- As a result of the career guidance program, to what extent do students demonstrate the motivation to achieve individual potential; apply critical thinking skills; apply the study skills necessary for academic success; seek information and support from faculty, staff, family and peers; organize and apply academic information from a variety of sources; use knowledge of learning styles to positively influence school performance; and become self-directed and independent learners?
- What percent of ABC High School students are employed, or in educational/training programs three years after graduation?
- Do local employers think our students are prepared for the world of work?
- How many of our 10th graders have identified their interests through an interest inventory?
- Do our students contribute positively to society after graduation?
- Can our 6th grade students identify appropriate and inappropriate social behaviors?

- Has our new career-mentoring program helped to reduce drug-related incidents in our high school juniors and seniors?

After you have written the evaluation questions, define the criteria for the evidence you need to answer the questions. Consider the following examples.

Question	Possible Evidence
Do local employers think our students are prepared for the world of work?	90 percent of the employers participating in the internship program indicate that our interning students have adequate or better skills in mathematics and communication 95 percent of the employers participating in the internship program indicate that our interning students show up on time to work - employers who have hired our students in the last 3 years report that our graduates have a good work ethic exhibited by showing up to work on time, getting along with their co-workers and taking on added tasks when asked to do so
To what extent do teachers incorporate career development activities as part of their classroom instruction?	90 percent of 9th grade science, math, social studies, English, art and physical education teachers state that they have incorporated career information at least 6 times per semester - at least 10 percent of the readings assigned in English class represent people working in an occupation - students in 10th and 11th grade report that their math, science, social studies, English, art and physical education teachers discuss careers on a frequent basis
Do our students contribute to society in a positive way after graduation?	99 percent of our students are employed, in education or training programs, in the military, are supporting a family by working at home and/or are volunteering for charitable/civic causes 3 years after high school graduation 85 percent of our students vote in local and national elections 5 years after graduation
Does the career class help students improve their career maturity?	80 percent of students claim that they have a better idea of their career interests 90 percent of students have selected at least 5 occupations which seem interesting to them 99 percent of students have explored at least 2 occupations in greater detail through our online career information program 90 percent of students show substantial positive change on the Career Maturity Scale published by TESTS Inc.
How successful is our career guidance program in preparing students to use positive social skills with their friends, family and	- incidences of bulling behavior have dropped by at least 15 percent at each grade level 99 percent of students can identify appropriate and inappropriate behaviors when presented with example situations - employers who hire our students report that 99 percent of our

co-workers?	students have positive relationships with their supervisor and co-workers
	• incidence of inappropriate behavior has been reduced by 25 percent across the entire school district
	• incidence of racial and ethnic discrimination has been reduced by 50 percent each year

Evaluation Process—Step 3
Specify the Evaluation Design

Data Collection. Your evaluation questions determine the nature of your evaluation design and when to collect data. You can collect data immediately after an intervention, after it is completed, during its implementation, several times throughout the program's implementation, or several years after a program has been completed. If you are interested in detecting program impact or change on certain attributes, you may want to collect data both before the intervention and after the intervention.

Evaluation Design. There are several ways to design your evaluation. Some evaluation designs can become very complex requiring various randomized control groups and complex statistical analyses. Other designs can be implemented easily by school personnel with analysis requiring only basic math.

Status Designs help to determine what is happening in the here and now (e.g., determine how many students have completed a career plan by the end of 10th grade or how many students have identified their interests by means of a commercial interest inventory). This simply requires an observation at the current time. An observation can be a survey, an examination of records, a formal assessment, or an interview.

Change Designs try to determine the impact a particular action or intervention has had on a group of individuals (e.g., determining whether participation in the middle school careers program helped students improve their peer relations, school attendance, self-concept and school attitudes). There are at least two ways to do this. You might create a survey or conduct an interview that asks students to what extent the middle school career program helped them improve their peer relations, school attendance, self concept and attitude toward school. You would include several fairly detailed questions about each area. A second, and better way, is to create a pre-post evaluation. This would involve constructing or finding an instrument that would take a measurement or reading before you implement a program and then compare the results on the same or similar instrument after the program is completed.

Comparison Designs are used to determine how programs have affected one group versus another group or one program versus another (e.g., determine if the career guidance program has a similar positive effect on male and female students, or if the employer mentoring program has more positive effect on student self-esteem than the computerized self-esteem lesson).

The best way to determine differential effects on groups or of programs is to use a comparison group design. This is where you have two different programs and measure the end result.

Incorporate the pre-post data collection concept and you can not only compare the two groups or programs, but you can detect the amount of change that your program has had or your group has made from before to after the program or intervention.

Longitudinal Designs are used when you want to know the effects over time. A typical evaluation question might involve a study of what high school graduates are doing after leaving high school 3 years after high school graduation. You would survey the group one or more times after the program's completion, depending on your question.

The chart below gives ideas about selecting a design for and the timing of data collection.

What You Want to Know	When to Collect	Type of Design
Immediate effects	Immediately after program or intervention	Status
Impact of a program—changes in a person or group	Pre and post intervention	Change
	Post only if asking a person if they have changed due to the program	Status
Comparison of one program with another	Pre and post	Comparison
	Post only if asking a person if they have changed due to the program	Status
Differential effects of a program on groups (e.g., male/female; 6th grade student vs. 9th grade students)	Pre and post intervention	Change
	Post only if asking a group of individuals to indicate if changes can be attributed to the program	Status
Effects across time	Some amount of time, perhaps several times after a program or intervention	Longitudinal
	During the implementation of a program	Longitudinal

Your evaluation might use one or more of these designs, depending on your evaluation questions. The evaluation you design and conduct should adhere to the precepts found in the *Joint Committee on Standards for Educational Evaluation* (1994). A summary of these standards are presented in Attachment C.

Evaluation Process—Step 4
Create the Data Collection and Action Plan

Data Sources

Your evaluation questions determine your data sources. Once your questions are specified, your next step is to determine who or what can best provide information that lead to answering the questions. Some potential data sources include:

Students

Parents and other family members

School board members and school administrators
Teachers, counselors, school psychologists, social workers and school support staff
Employers
Club sponsors
Mentors
Police, healthcare workers and community agency staff
Faith-based organizations
Others

Data sources might also include records about your program such as number of career development plans completed and signed or time spent on a computerized career development program. Data sources can also include the review of records that have been kept by others such as truancy records, police records, violence reports, truancy records, bullying incidents and school attendance logs.

Data Collection Methods
Your data collection plan describes not only the source of your data, but also the methods and techniques you will use to gather the data. Some data are already available and you just need to find it and analyze it; some data you may need to specifically collect. The chart below suggests several data collection methods and how each can be used.

Typical Data Collection Methods

Collection Method	Examples	Comments
Activity Logs and Document Review	attendance records; truancy reports; violence reports; discipline referrals; library book checkout records; time spent on a computerized career information delivery system; record of visits to the school counselor; records of number of students accepted for higher education; skill checklists; essays; review of performance ratings; program logs; report cards; passing scores; career portfolios	This information may already be compiled by other people and agencies.
Focus Groups (small group meetings)	small group meeting to determine reasons for school violence; small group meetings for identifying pressures of external factors on educational achievement; small group meetings to identify factors that promote positive self-esteem; small group meeting to determine the effects of high stakes testing	Use when you want to explore factors in depth, such as how and why. This technique can be effective at gathering information if run well. Focus groups usually involve small numbers of people and can take a long time to conduct. Questions should be written and carefully structured. Note: Facilitators could bias results through tone of voice, gestures, etc.

Interviews (one-on-one conversation)	interview students about their career aspirations, about obstacles to making career decisions, or about how they interact with persons of color or persons with disabilities; interviews with parents to assess the health habits of their child; interviews with college entrance professionals to make judgments about the level of preparation of ABC high school students	Use this technique to probe more deeply about certain attitudes, behaviors, feelings, or why actions are taken. Note: Facilitators could bias results through tone of voice, gestures, etc. It is difficult to reach a large audience with this technique if you have limited time and resources.
Observations (systematic watching of what people do)	observations and documentation of the number of students using computerized career development programs; observations and documentation of behaviors in the cafeteria; observations of student interactions with others	Use this technique to get answers to questions that deal with "what and how many." Observers need to be trained to be consistent.
Prepared Surveys and Published Instruments	work values inventories; school climate surveys; interest inventories; personality inventories; decision-making barrier surveys; emotional intelligence assessments	They can save you time and effort, but may not be directly or entirely related to your evaluation questions.
Questionnaires and Surveys (developed locally)	checklist on how students feel about bullying; survey on what students think is important to having a successful career; essays on self-concept; interest inventories; work values exercises; conflict resolution surveys; survey of number of occupations considered by a student; survey on how many students are interested in non-traditional careers	These techniques can use used to answer "what, how and why" questions. Essay or open-ended questions may be better for the "why" types of questions. Questionnaires may be best for collecting objective information from many individuals.

Completing Your Data Collection Action Plan

After you determine what technique will be used to collect the information, gather the evidence to answer your evaluation questions. To do this, specify from whom you gather the data, who will gather the data and how you intend to analyze the data. The table below is a sample Data Collection Action Plan and provides a good format to organize your thoughts and plans for gathering the data. For more information about data collection sources and methods, check out the resources listed in Attachment A of this paper. A blank Data Collection Action Plan Form is provided in Attachment B of this paper.

Data Collection Action Plan – Example

Evaluation Question 1 To what extent do 9th grade students consider non-traditional occupations as part of their career exploration?	What is Collected Listing of 5 top occupations of interest Gender	How Collected/What Technique Counselor-developed survey of students
From Whom/Data Sources 9th grade students	When Collected and By Whom Counselor assistant during the week of May 4, 2008 at 11 am	How Data are to be Analyzed Frequency count of non-traditional occupations by male and female

Evaluation Question 2 Does the career class help students improve their career maturity?	What is Collected Career maturity information from 11th grade students and 12th grade students participating in the career class	How Collected/What Technique Pre-intervention – September and Post-intervention – December Using Career Maturity Index published by TESTS Inc.
From Whom/Data Sources Random sample of 11th and 12th grade students	When Collected and By Whom September 12 and December 15 by the District Test Coordinator	How Data are to be Analyzed Comparison of means of pre-test and post-test

Evaluation Question 3 To what extent are ABC High School graduates employed, in education/training programs, or in the military 3 years after high school graduation? How helpful was the career program at ABC High School in helping students prepare for the future?	What is Collected Employment status and activities of high school graduates 3 years after graduation Survey on graduates' perception of how courses and services in high school helped them to prepare for life	How Collected/What Technique Alumni survey form; web and paper-based Form asks about educational and employment status; participation in training programs since graduation Rating scale on opinions of courses and career guidance services by graduates Follow up phone interviews from a random sample of respondents
From Whom/Data Sources All ABC High School graduates, class of in June 2005	When Collected and By Whom Collected from ABC High School graduates	How Data are to be Analyzed Determine occupation, education, and training status of members of the group.

	class of 2005 Collect in July of 2008 by school district institutional research department	Frequency count of graduates working full time, part time, working at home, in education and training programs, in military. Graph of trends of above information Summary of ratings scale questions and development of trends over time

Evaluation Question 4 Does our career exploration program for 7th grade students (based on the National Career Development Guidelines) that focuses on respect for diversity a) promote acceptable classroom behavior, b) reduce the incidence of violence?	**What is Collected** Information on a) classroom behavior b) school violence	**How Collected/What Technique** a) counselor-developed observational checklist on classroom behavior b) school records of incidence of violence
From Whom/Data Sources a) all 7th grade students in Abraham Lincoln Middle School b) random sample of 7th grade students in Abraham Lincoln Middle School c) review of all school incidence of violence records	**When Collected and By Whom** a) end of semester (December 10) by counselor assistant in science class and in physical education class b) district evaluation coordinator at beginning of program (September 10) and at the end of the program (December 15) c) by counselor at the beginning of 7th grade, end of 7th grade and middle of 8th grade	**How Data are to be Analyzed** a) frequency count of positive behaviors and negative behaviors; 90% positive behaviors is acceptable b) comparison of mean scores at the beginning of program and end of program c) calculation of incidence of violence in September and May of 7th grade and in December of the following year (8th grade)

Privacy and Ethics Issues

Any evaluation you conduct should respect the dignity and privacy of the people involved. People participating in your evaluation should know the purpose and use of the data and the limits of their privacy. They should not be forced to provide any information that makes them

feel uncomfortable or that violates any personal or cultural values and standards. Privacy applies to records, as well.

The Joint Committee on Standards for Educational Evaluation's Program Evaluation Standards suggests that "all evaluations will be conducted legally, ethically, and with due regard for the welfare of those involved in the evaluation, as well as those affected by the results." (1994)

Evaluation Process—Step 5
Collect Data

How Much Data Do You Need?
Your Data Collection Action Plan specifies what data and from whom you collect information. The issues of collecting from the entire population under study or a sample of that population must be addressed. As a general principle, collecting information from the entire population of interest is better than a sample. A carefully selected sample is better than a haphazard one. The amount of resources available for the program evaluation will be a key determiner of how much data you collect.

Response Rate is the percentage of the population studied that responds to your request for data. There is no hard and fast rule to the proper response rate except to say that 100 percent of the target audience is better than 70 percent, and 70 percent is better than 40 percent. The more information you have the more likely the information you get back is representative of the entire population. Aim for a high number because a low response rate may introduce bias into your results.

If you don't get 100 percent response or close to it, be sure to couch your findings with the caveat that the results may not be representative of the entire population.

Some ways of increasing your response rate include:
- Emphasize the importance of the questionnaire or survey.
- Use a postage-paid return envelope.
- Send out the survey a second and third time, if necessary.
- Keep the survey short and to the point.
- Make it attractive.
- Offer an incentive such as money, prize, opportunity to receive the results, etc.
- Keep the responses anonymous.
- Consider using a web-based survey.

A **sample** is a subset of the total universe of people you are trying to find out about. You gather data from this subset to draw conclusions about the entire group. The major goal in selecting the sample is to be sure that the group selected is representative of the entire population. Said another way, you need to be sure that the sample is not biased. There are several types of sampling that are commonly used in education as described below.

Sampling Methods

Method	Definition	Typical Action
Random Sampling	Every person in the population has an equal chance of being selected.	Put all names in a hat and draw your sample from the names or give every person a number and then use a random number table or generator to select the sample.
Systematic Sampling	Every k^{th} member of the population is sampled.	From a list of numbered names, starting at a random point, pick every 15th (or any number you choose) person.
Stratified Sampling	The population is divided into two or more strata (groups) and each stratum is sampled.	Divide the group according to the group of interest, say girls and boys, or students in 10th grade, 11th grade, and 12th grade. Randomly select a sample within each group.
Convenience Sampling	Sampling is done, as it is convenient.	Selecting people who walk by, volunteer, or who are just generally available. This method has a high probability of being biased, but it may be better than not having any data at all.

As soon as you collect the data, make copies of the information and store it in a safe place. Be sure you have documented any problems in data collection that could affect the analysis or interpretation of the data. Keep **all** forms in a place where only the evaluators can access them.

Evaluation Process—Step 6
Analyze Data

Types of Simple Data Analyses
Simple Frequency Counts. Many of your evaluation questions can be answered by simple tallies or frequency counts as shown in the chart.

Area	Frequency
9th grade career plans completed	29
Number of students exploring non-traditional occupations	6
Number of 10th grade teachers that incorporate career information into the curriculum	8
Number of truancy reports second semester, 2005	125

You can also provide some of this information by relevant category if that is appropriate. For example:

Area	Frequency
9th grade career plans completed	Males – 15 Females – 14
Number of students exploring non-traditional occupations	Males – 1 Females – 6
Number of truancy reports second semester, 2007	Blacks –12 Whites – 14 Hispanics – 14 Other – 4

Percentages

Frequencies are useful, but they have limited interpretability. For example, it is reasonable to ask if 29 completed career plans represents everyone, a small proportion, or some number in between. Percentages add some information that can help interpret the results. It puts frequencies in some perspective.

Area	Percent
Percent of male and female 9th grade students with completed career plans	Males – 73% Females – 67%
Percent of students exploring non-traditional occupations	21%
Percent of truancy reports second semester, 2007 by racial/ethnic group	Blacks – 23% Whites – 41% Hispanics – 24% Other – 12%
Percent change in bullying incidents as compared to school year (SY) 2001-2002	SY2002-2003 = 0% SY2003-2004 = -15% SY2004-2005 = -40%

Change or Difference. Many evaluation questions deal with change. Did something or some intervention make a difference? After implementing the *Respect* program, is there a difference in the number of bullying incidents? After the career class, do students use the computerized career information delivery system more? These types of questions are prime candidates for statistical analysis.

Number of 10th grade students using "Choosing Careers" Computerized System	Before Career Class	After Career Class
	90	123

Percent change in bullying incidence as compared to school year 2001-2002	School Year 2002-2003	School Year 2003-2004	School Year 2004-2005
	0%	-15%	-40%

Statistical Tests or Not?
Many researchers would suggest that more sophisticated statistical tests be conducted in order to answer the questions in the above examples. In the end, however, the question to be answered remains the same: "Is the difference great enough that you think the change or difference is practically significant?" In the bullying incidence example above, the difference is pretty clear. If the numbers were closer together, say -35 % and -39%, the difference would not be so clear; measurement error could easily explain the difference. So, 35% and 39% may be equivalent from a statistical perspective. Statistical techniques could tease out the degree of difference, if any. Even if the difference is statistically significant, you still need to answer the question as to whether or not there is a practical difference.

Reaching an Objective or Goal Comparison. Many evaluation studies will prompt the examination of how well or to what degree a particular objective was reached (or not). If one of the goals of your program was to have all your 11th grade students know their measured interest areas based on the administration of the XYZ Interest Inventory, then you can determine how many actually reached that goal. If your program has a goal of having 90% of the math, science, social studies and art teachers in your school district incorporate occupational information into their curriculum, then you would compare your starting point with your ending point. If the outcome is satisfactory and defensible -- great. If the results are similar to those below, then maybe some changes need to be made.

Percent of Students Identifying Their Interests by May 2007	Goal	Actual
	100	64

Percent of Teachers Incorporating Information About Occupations into Their Curriculum	Goal	Actual
	90	50

Examining Trends. Some of your evaluation questions may deal with longer-term trends. What is the employment status of our graduates 2 years, 4 years, and 6 years after graduation?
You could examine employment status of the cohort of your graduates with a survey at each of those times and develop a chart much like that below.

Percent of American HS Graduates in Full Employment	2 years after graduation	4 years after graduation	6 years after graduation
	15%	25%	75%

Averages. Some evaluation questions require the calculation of averages, such as average score on a career maturity assessment or average score on the SAT for students in the Advanced Placement English course. Averages can be used to compare various subgroups, various interventions and various time periods.

Correlations. Sometimes it is important to find the degree of relationship of two items such as grade point average and SAT scores or self-esteem and negative behavioral incidents or hours spent studying and number of hours spent watching TV. To find the relationship between two items, you would calculate a correlation. Although a correlation can be calculated by hand, using a simple program like Excel can perform this more rapidly and easily.

It is important not to over interpret. A correlation does not necessarily causation. One variable does not necessarily cause another. For example, if we find a high correlation between gender and college entrance scores, it does not mean that being male or female causes high scores or that high score cause gender. Similarly if we find a negative correlation between hours spent studying and hours of watching TV, it does not mean that one causes the other.

Unintended Consequences. Unintended consequences are results or outcomes of a program that were not anticipated or planned. As you review the data, are there any surprises or results that you did not expect? These unintended consequences can be positive, such as increased participation of teachers in the school-mentoring program, or negative, such as an increase in students' stress due to a focus on their future choices. Sometimes these unintended consequences are uncovered through formal data gathering techniques. More often, they are discovered from observations or focus group sessions and interviews where you have a chance to probe more deeply a comment made by an individual. Be on the look out for unintended consequences.

Evaluation Process—Step 7
Document Findings

The major task of this step is to develop conclusions based on your data. Examine the results carefully and objectively. What do these results tell you about your program? What do the results say about your evaluation questions? You must document your findings in writing. The evaluation is not complete until you do so.

It is easy to look at the results through the proverbial "rose colored glasses." It is tempting to explain away or make excuses for less than optimal findings if the program is dear to your heart. It is, however, your professional responsibility to document objectively and fairly the results, findings and conclusions of the evaluation study.
The program evaluation report should address the following:
- Clear and precise description of what you are evaluating
- The goals and purpose of the evaluation
- The evaluation questions
- Procedures used to collect data for each question
- Description of data collection instruments for each question
- Description of the data providers (who provided information for each question)
- Response rate
- Methods of analysis
- Conclusions (listed by evaluation question)
- General conclusions/findings about the program

- Action items and recommendations for program improvement and change

It is important that you not hesitate to disseminate findings that are less than wonderful and even negative. With problematic results you have the opportunity to suggest fixes and changes that will help to attract more resources and improve the program.

Evaluation Process—Step 8
Disseminate Findings

The scope of your evaluation and the evaluation questions will help you determine the audience that should receive the evaluation report. Your target audience will certainly be you and your staff if the evaluation questions are specific, narrow and very focused. If your evaluation questions are broad, your school and school district leaders and possibly your school board should know the results. In some instances students, parents, employers and community leaders will want to know the results. You may choose to provide a comprehensive and detailed report to some audiences. In other cases a short executive summary will be sufficient. Tailor the information to the needs and wants of the particular audience.

Consider using any and all of the following techniques to disseminate your information:
- Written reports
- School board presentations
- Parent/teacher conferences
- Presentations and discussions at staff/faculty meetings
- TV and newspaper interviews
- Web-link to your report from the school district's web-site
- Brochure disseminated to parents
- School newspaper
- Chat room
- Discussion with your staff
- Presentations to local clubs such as Rotary
- Presentations to professional association conferences such as the American Counseling Association, American School Counselor Association and National Career Development Association
- Presentations to local and state professional associations
- Newsletters
- Journal articles
- Summary to employers
- Summary to community activist and governmental organizations such as the police department and youth support groups
- Notices to career development professionals in other communities
- Podcasts
- Blogs

Evaluation Process—Step 9
Feedback to Program Improvement

Review the results, findings and conclusions. What in this mass of information tells you that you should make changes in the program? What should those changes be? If there are groups of students that are not being served or not benefiting from the program, what can and must be done? If the program is not reaching your objectives, what might be changed? Think also about policy implications. Are there changes that should be made in school, school district or program policy that are pointed out by the evaluation? Are there budget implications? Is the cost of a program worth the benefit?

Even if all the news is good news and you have attained all the goals and objectives, how could you elevate the performance to a higher level or attain the same results at a lower cost? How can we make this the best career guidance program possible? Let the results of your evaluation cycle back into the design and delivery of the program.

Summary
Evaluation is not a one-time event. Evaluation is a continuous activity that should be an integral and integrated part of your program activities. Well designed, thoughtful and carefully executed evaluations can provide important information to document the results of your program and point you toward areas where improvements may be needed. It is a valuable resource for informing yourself and others about your program. A good evaluation is one that is used by you and others to make necessary changes and improvements in the quality of service you provide your students.

References

Joint Committee on Standards for Educational Evaluation (1994). *The program evaluation standards: How to assess evaluations of educational programs*. Thousands Oaks, CA: Sage Publications

Granello, D. H & Wheaton, J. E. (2004). Online data collection: Strategies for Research. *Journal of Counseling and Development*, 82, 387-393.

Wall, J. E. (2004). Harnessing the power of technology: Testing and assessment applications. In J. E. Wall and G. R. Walz (Eds), *Measuring up: Assessment issues for teachers, counselors and administrators*. (pp. 665-684). Austin, TX: Pro-Ed, Inc.

Wall, J. E. (2005). What Do I Like to Do?: 101 Activities to Identify Interests and Plan Careers. Austin, TX: Pro-Ed. Inc.

ATTACHMENT A
EVALUATION RESOURCES (A SAMPLER)

Assessment Resources

Relevance, the Missing Link—A Guide for Promoting Student Success Through Career-Development Education, Training, and Counseling
www.doe.mass.edu/cd/mcrn/cadisa . This site contains instruments that might give you ideas for developing your own assessments. The instruments are found at about page 90 in this downloadable document.

The Buros Institute
http://buros.unl.edu/buros/jsp/search.jsp. This site provides reviews of many commercially available English language tests that meet specific technical standards. The test reviews come in print format, called the *Mental Measurements Yearbook (*the 15th is the most current*)* or from the *Tests Reviews Online*. Individual test reviews can be purchased at $15.00 each. The reviews are generally extremely thorough and written by highly trained testing and measurement specialists.

ETS Test Collection
http://www.ets.org/testcoll/index.html. This site includes an extensive library of 20,000 tests and other measurement devices from the early 1900s to the present. It includes commercial tests and assessments that have been developed for research purposes.

Assessment and Evaluation Standards

Responsibilities of Users of Standardized Tests
http://aace.ncat.edu/Resources/documents/RUST2003%20v11%20Final.pdf. This document provides important concepts for the proper use of standardized testing instruments.

Competencies in Assessment and Evaluation for School Counselors
http://aace.ncat.edu/documents/atsc_cmptncy.html. This document provides competencies by which counselors can self-evaluate their capabilities in assessment and evaluation.

National Center for Research on Evaluation, Standards, and Student Testing
http://www.cresst.org/index3.htm. This site provides reports and information on various testing and evaluation efforts. You might get ideas for your own evaluation designs and reports.

Code of Fair Testing Practices in Education
http://aace.ncat.edu/Resources/documents/Code%20Final%20Edit%209-02.pdf. This document has been endorsed by seven professional associations. It provides guidance to test developers and tests users on proper test selection, use, and interpretation.

Rights and Responsibilities of Test Takers: Guidelines and Expectations
http://aace.ncat.edu/documents/ttrr.html This document acts as a "bill or rights" for test takers and also outlines their responsibilities with regard to assessment.

The Joint Committee on Standards for Educational Evaluation
http://www.wmich.edu/evalctr/jc/ This is a comprehensive website for program, student, and personnel evaluation standards.

Checklists and Observations

Checklists and Tools for Use in School Evaluation
http://evaluation.wmich.edu/resources/schooleval/. This website, created by The Evaluation Center, Western Michigan University, provides some helpful suggestions for creating evaluation surveys and checklists.

Using Observation to Evaluate Skills
http://www.extension.psu.edu/evaluation/pdf/NEWTS61.pdf. The document offers some tips for using observations and observational checklists to gather data.

Ethical Standards

Ethical Standards for School Counselors from the American School Counselor Association.
http://www.schoolcounselor.org/content.asp?contentid=173

2005 Code of Ethics from the American Counseling Association
http://www.counseling.org/CF_content/index.htm

Ethical Standards from the National Career Development Association
http://www.ncda.org/pdf/EthicalStandards.pdf

Surveys

What is a Survey?
http://www.amstat.org/sections/srms/brochures/survwhat.html

Designing a Questionnaire
http://www.amstat.org/sections/srms/brochures/designquest.pdf

Mail Surveys
http://www.amstat.org/sections/srms/brochures/Mail.pdf

Counseling Surveys
http://www.counselingsurveys.org/ This not-for-profit website was created in order to promote quantitative survey research in the counseling profession.

Guide to Administering Surveys
 http://www.nsse.org/surveys_opinion/AdministratorGuide.pdf This document gives some general rules and guidance for construction and administering evaluation surveys.

Guide to Analyzing Survey Findings
http://www.nsse.org/surveys_opinion/AnalyzingGuide.pdf This document provides some simple techniques for analyzing and understanding survey results.

Online Survey Tools
http://npowerny.org/tools/online%2Bsurvey%2Btools.pdf. This site reviews the capabilities of eight web survey tools and provides a listing of many others.

Focus Groups

Guide to Conducting Focus Groups
http://www.air.org/eqed/downloads/FG%20feb7.pdf

Response Rates

U.S. Department of Education/American Institutes for Research, Guide to Response Rates
http://www.air.org/eqed/downloads/FG%20feb7.pdf

Report Writing

Writing the Executive Summary
http://www.columbia.edu/~ftg1/WRITING%20EXECUT.SUMMARY.html

General Evaluation Design Tools

Fund for the Improvement of Postsecondary Education: Notes on Evaluation Design
http://www.ed.gov/about/offices/list/ope/fipse/notes.html

Evaluation Design and Tools
http://www.ncrel.org/tandl/eval2.htm

ATTACHMENT B
DATA COLLECTION ACTION PLAN

Evaluation Question 1	What is Collected	How Collected/What Technique
From Whom/ Data Sources	When Collected and By Whom	How Data are to be Analyzed

Evaluation Question 2	What is Collected	How Collected/What Technique
From Whom/ Data Sources	When Collected and By Whom	How Data are to be Analyzed

Evaluation Question 3	What is Collected	How Collected/What Technique
From Whom/ Data Sources	When Collected and By Whom	How Data are to be Analyzed

THE PROGRAM EVALUATION STANDARDS
Summary of the Standards

These standards were developed by the Joint Committee on Standards for Educational Evaluation. The intent of the standards is to help ensure useful, feasible, ethical, and sound evaluation of education programs, projects, and materials. Sixteen professional organizations sponsored the production of these standards. The following pages present a summary of the standards. Further information and explanation can be obtained from the entire document.

Utility Standards

The utility standards are intended to ensure that an evaluation will serve the information needs of intended users.

U1 Stakeholder Identification Persons involved in or affected by the evaluation should be identified, so that their needs can be addressed.

U2 Evaluator Credibility The persons conducting the evaluation should be both trustworthy and competent to perform the evaluation, so that the evaluation findings achieve maximum credibility and acceptance.

U3 Information Scope and Selection Information collected should be broadly selected to address pertinent questions about the program and be responsive to the needs and interests of clients and other specified stakeholders.

U4 Values Identification The perspectives, procedures, and rationale used to interpret the findings should be carefully described, so that the bases for value judgments are clear.

U5 Report Clarity Evaluation reports should clearly describe the program being evaluated, including its context, and the purposes, procedures, and findings of the evaluation, so that essential information is provided and easily understood.

U6 Report Timeliness and Dissemination Significant interim findings and evaluation reports should be disseminated to intended users, so that they can be used in a timely fashion.

U7 Evaluation Impact Evaluations should be planned, conducted, and reported in ways that encourage follow-through by stakeholders, so that the likelihood that the evaluation will be used is increased.

Feasibility Standards

The feasibility standards are intended to ensure that an evaluation will be realistic, prudent, diplomatic, and frugal.

F1 Practical Procedures The evaluation procedures should be practical, to keep disruption to a minimum while needed information is obtained.

F2 Political Viability The evaluation should be planned and conducted with anticipation of the different positions of various interest groups, so that their cooperation may be obtained, and so

that possible attempts by any of these groups to curtail evaluation operations or to bias or misapply the results can be averted or counteracted.

F3 Cost Effectiveness The evaluation should be efficient and produce information of sufficient value, so that the resources expended can be justified.

Propriety Standards

The propriety standards are intended to ensure that an evaluation will be conducted legally, ethically, and with due regard for the welfare of those involved in the evaluation, as well as those affected by its results.

P1 Service Orientation Evaluations should be designed to assist organizations to address and effectively serve the needs of the full range of targeted participants.

P2 Formal Agreements Obligations of the formal parties to an evaluation (what is to be done, how, by whom, when) should be agreed to in writing, so that these parties are obligated to adhere to all conditions of the agreement or formally to renegotiate it.

P3 Rights of Human Subjects Evaluations should be designed and conducted to respect and protect the rights and welfare of human subjects.

P4 Human Interactions Evaluators should respect human dignity and worth in their interactions with other persons associated with an evaluation, so that participants are not threatened or harmed.

P5 Complete and Fair Assessment The evaluation should be complete and fair in its examination and recording of strengths and weaknesses of the program being evaluated, so that strengths can be built upon and problem areas addressed.

P6 Disclosure of Findings The formal parties to an evaluation should ensure that the full set of evaluation findings along with pertinent limitations are made accessible to the persons affected by the evaluation and any others with expressed legal rights to receive the results.

P7 Conflict of Interest Conflict of interest should be dealt with openly and honestly, so that it does not compromise the evaluation processes and results.

P8 Fiscal Responsibility The evaluator's allocation and expenditure of resources should reflect sound accountability procedures and otherwise be prudent and ethically responsible, so that expenditures are accounted for and appropriate.

Accuracy Standards

The accuracy standards are intended to ensure that an evaluation will reveal and convey technically adequate information about the features that determine worth or merit of the program being evaluated.

A1 Program Documentation The program being evaluated should be described and documented clearly and accurately, so that the program is clearly identified.

A2 Context Analysis The context in which the program exists should be examined in enough detail, so that its likely influences on the program can be identified.

A3 Described Purposes and Procedures The purposes and procedures of the evaluation should be monitored and described in enough detail, so that they can be identified and assessed.

A4 Defensible Information Sources The sources of information used in a program evaluation should be described in enough detail, so that the adequacy of the information can be assessed.

A5 Valid Information The information-gathering procedures should be chosen or developed and then implemented so that they will assure that the interpretation arrived at is valid for the intended use.

A6 Reliable Information The information-gathering procedures should be chosen or developed and then implemented so that they will assure that the information obtained is sufficiently reliable for the intended use.

A7 Systematic Information The information collected, processed, and reported in an evaluation should be systematically reviewed, and any errors found should be corrected.

A8 Analysis of Quantitative Information Quantitative information in an evaluation should be appropriately and systematically analyzed so that evaluation questions are effectively answered.

A9 Analysis of Qualitative Information Qualitative information in an evaluation should be appropriately and systematically analyzed so that evaluation questions are effectively answered.

A10 Justified Conclusions The conclusions reached in an evaluation should be explicitly justified, so that stakeholders can assess them.

A11 Impartial Reporting Reporting procedures should guard against distortion caused by personal feelings and biases of any party to the evaluation, so that evaluation reports fairly reflect the evaluation findings.

A12 Metaevaluation The evaluation itself should be formatively and summatively evaluated against these and other pertinent standards, so that its conduct is appropriately guided and, on completion, stakeholders can closely examine its strengths and weaknesses.

Joint Committee on Standards for Educational Evaluation (1994). *The program evaluation standards: How to assess evaluations of educational programs*. Thousands Oaks, CA: Sage Publications. Reprinted with permission.