

THE RESEARCH PROCESS

Presentation on the Process and Tools Used for Fruitful Discipleship Practices in MENA

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Presentation Overview

.My name is Gordon Bonham. For the last nine years I have had the wonderful opportunity to do mission research which built upon my almost 40 years' prior experience in general social research. I have found the research process is much the same. It does not matter if it is a large or small project. I divide the research process into four steps. I will discuss each of these steps and the tools:

- Plan research using a Logic Model;
- Collect data using LimeSurvey;
- Analyze data using PSPP and QDA Miner;
- Convey information using PowerPoint.



Fruitful Discipleship Practices

- Purpose:** *What are the most fruitful practices occurring among discipleship ministries that are leading to the successful planting of house churches across the region?*
- Initiation:** *Ministry leader contacted the Global Research Team for assistance in surveying people using discipleship materials and developing house churches.*
- Time Frame:** *March 2017 through February 2018*

I use examples from a recently completed project as I talk about the four steps. The OC Global Research Team provided research assistance to a ministry that develops discipleship training materials. They are for majority background believers (MBBs) in the Middle East and North Africa. The project called *Fruitful Discipleship Practices*, began in March 2017 when the ministry leader contacted the Global Research Team. It ended a year later when the ministry leader sent the report to the 17 practice directors that participated. The research may continue with further projects involving a larger

number of discipleship practices. The 17 practices were in 11 countries and disciplined believers from 9 ethnic groups using materials in Arabic, English, and French.

Plan Research

The best way to start any research project is to ask, “What is the primary question in this research? What do we want to know?” In *Fruitful Discipleship Practices* it was:

What are the most fruitful practices that occur among discipleship ministries that lead to successful planting of house churches across the region?

In addition to the central question, it is useful to answer six basic questions of who, what, when, where, why and how.

Who?

Who are the best sources of information?

Three groups could best provide the information for our project. They were:

- Practice directors;
- Group leaders;
- Disciples.

What?

The project wanted to learn about training practices for MBBs, preferably led by MBB group leaders. This required data on discipleship groups, their curriculums, and the results.

When?

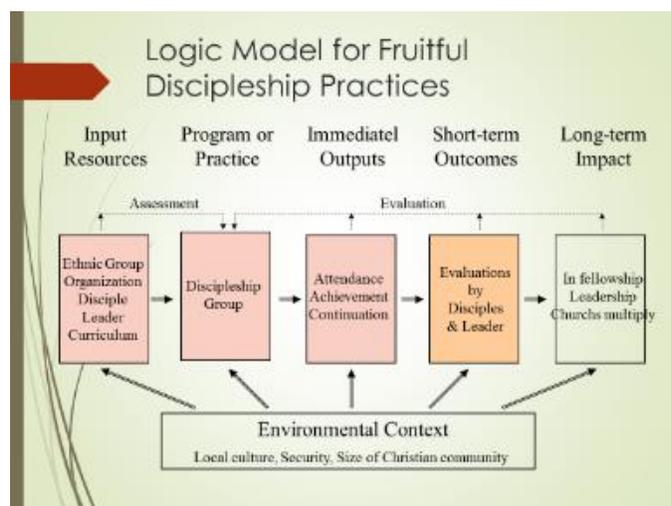
Data can refer to a single point in time, to a time interval, or both. Characteristics of a person, or their thoughts, generally relate to a single point in time—the date of interview. Actions generally are measured over an interval of time. That interval needs to be clear and easy to define. The ministry leader visited practices throughout the fall to collect data. The time interval for a practice was the 12 months before his visit, and we included every discipleship group that met at any time during the 12 months. Some of these discipleship groups had ended and some were still going. Adjustments had to be made during analysis for the two groups. This slide shows that 32% of disciples whose training was complete were leading church fellowships, but only 13% of those still in training. Much, if not all, of the difference is due to the time frame.



Where?

The discipleship practices of interest were in a specific geographical area-- the Middle East, North Africa, and the Sahel. However, one practice was included outside these regions since it disciplined people recently from the regions. The ministry leader and his associates were from and visited, these regions and could collect the data.

Why?



The purpose of our project was to identify the characteristics of discipleship practices that have eventual impact on God's kingdom. Most research projects cannot wait years to measure long-term impact, but a Logic Model can keep that goal in mind while showing measurable steps toward that goal. We often view figures moving from left to right. However, a Logic Model is developed from the right to left. The right side of the logic model identifies the long-term impact expected, perhaps 3-5 years after the program. In our project, we expected discipleship training to have the long-term impact of

disciples being in fellowship with other believers, providing church leadership, and multiplying churches. The second box from the left shows short-term outcomes, things that can be measured 6-12 months after the program. We considered growth in disciples' faith a short-term outcome expected to result in the long-term impact on fellowship, leadership, and new churches. The center box in the model identifies immediate outputs, such as meeting attendance, achievements within the group, and fellowship with believers outside the group. The next box to the left list the key elements of the program. For discipleship training, this is the discipleship group. The far right of the Logic Model identifies the resources that makes the program possible. Our project focused on the four shaded boxes, but recognized that all the parts could be influenced by the environmental context underneath all the other components of the Logic Model.

The Logic Model identifies the data that are needed. In our project:

- Input Resources were:
 - Characteristics of the target ethnic group—size, language, country, Christian presence;
 - Characteristics of the organization—size, staff, experience, number of groups;
 - Characteristics of disciples—age, sex, language, family, religious background;
 - Characteristics of leaders—age, sex, language, Christian experience, training;
 - Characteristics of curriculum—number of sessions, content, desired outcomes.
- Program or Practice included:
 - Discipleship group composition and activities—size, frequency, time and place.
- Initial Outputs indicated by:
 - Disciple attendance--proportion of time attended and involvement;

- Achievement—course completion and recognition;
- Continuation—fellowship with believers outside and after the discipleship group.
- For Short-term Outcomes measured by:
 - Leader Evaluations—The degree the group leader thought each disciple grew as a follower of Jesus because of the training;
 - Disciple Evaluations—Self-reports of disciples on their growth as followers of Jesus and the contributions of the group experience to that growth.

How?

How is the project to be carried out? This project had an interactive process between the ministry team and the research team.

The ministry team:

1. Defined the purpose and basic questions;
2. Translated documents into Arabic and French;
3. Engaged the discipleship practices;
4. Collected the data in the field;
5. Entered the data into the web;
6. Developed the action plan based on the report.

The research team:

1. Refined project plan and survey questions;
2. Prepared surveys and procedures in English;
3. Cut and pasted translations into the survey forms;
4. Monitored and edited data in web format;
5. Downloaded and analyzed data; and
6. Wrote the report for ministry review.



Collect Data

Fruitful Practices Surveys

Surveys should be as efficient as possible in collecting data, and this means the words and terms must be clearly defined. The definition of a “discipleship practice” was central. Was it defined by an organization, by its target ethnic group, or by its curriculum? Since we did not want to collect the same data on more than one survey, we developed three surveys to be completed with the practice director that together would define a discipleship



practice:

1. *Ethnic Group Survey* - characteristics of the target group;
2. *Training Program Survey* - characteristics of the organization conducting the training;
3. *Curriculum Survey* – Number of sessions, topic, and desired.

We also developed four additional surveys to define the discipleship groups and their outcomes:

4. *Discipleship Group Survey* - characteristics of each discipleship group, completed by the group leaders;
5. *Leader Survey* – personal characteristics, self-completed by group leaders;
6. *Disciple Survey* – characteristics, participation and growth of each disciple, completed by group leaders;
7. *Disciple Evaluation Survey* – Disciple’s evaluation of the discipleship experience and personal growth, collected during personal interviews by practice staff not part of the discipleship group.

Two additional items were prepared to help during the data collection process:

8. *Guide for Training Program Leaders* that described each survey, defined key words, and provided the URL if the directors and leaders wished to enter the information themselves;
9. *Control Worksheet* for the ministry leader to track contacts and assign program and ethnic group identification numbers.

Languages, Translations, and Definitions

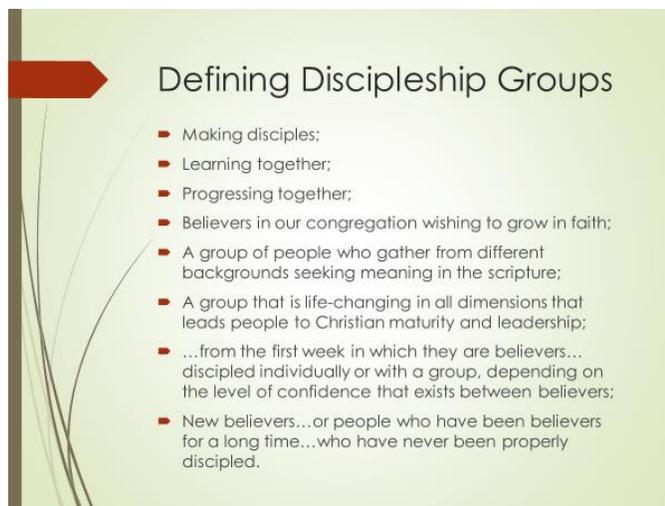
Translators had several challenges over which words to use when translating from English into Arabic, less so from English into French. We also learned that discipleship practices had many definitions for discipleship groups. Some included those not yet believers, some focused on new believers, others on any believers wanting to grow, and some on training church leaders.

Sample

Identifying the members of the target population to survey is a major challenge. It is easy if a list exists of all the members of the population. In such a situation, the only two questions are:

1. How many should be sampled so that the findings are reliable?
2. How to maximize the participation of those selected?

Rarely does such a list exist, and the research project must use a non-probability sample. These are variously called quota samples, snowball samples, or convenience samples. Our project started with a convenience sample. The ministry leader knew a few practices he thought would



participate. As he contacting them, he found others that were interested, a snowball effect. Soon he set an informal quota for having several practices from each part of the region. This sample provided a diversity of practices, even though we can't be sure of how representative they are.

Interviews

The ministry leader believed face to face interviews by ministry team members would be most effective in collecting data from practice directors. The practices themselves conducted interviews with disciples. The other surveys were generally completed by group leaders about themselves, their groups, and their disciples. Many of the people conducting interviews or completing surveys were not fluent in English, so the surveys needed to be available in Arabic and French as well as English.

Entering data

The ministry leader and associates enter the data collected on paper surveys into the web. They could enter all the fixed-responses in the language in which they were collected. The answers to open response questions recorded in Arabic or French needed to be translated before analysis by the research team. The ministry leader translated as he entered data and translated later data entered by his associate.

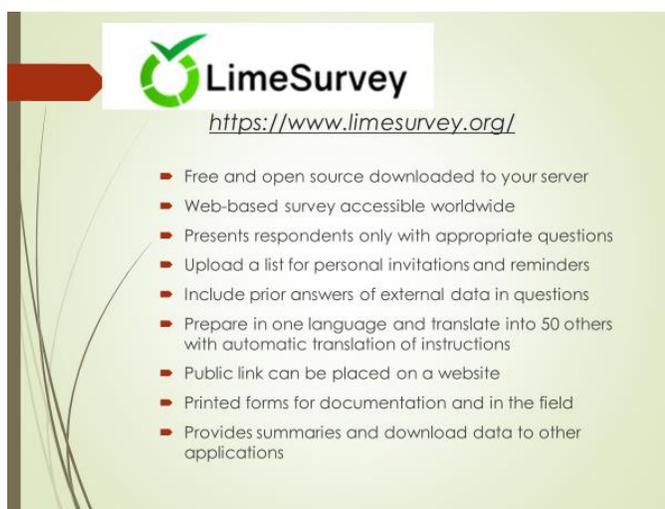
Lime Survey

LimeSurvey met all the needs of our project. It is a free and open source on-line web survey. It enables users to develop and make available on-line surveys, collect responses, create statistics, and export the data to other applications. It can be downloaded to your web server from (<https://www.limesurvey.org/>). You can also use this or other web surveys free for small and one-time surveys (<https://www.surveymonkey.com/> and <https://esurv.org/>), but your survey and its data remain on that company's server.

This might present a security issue, which is the reason we use LimeSurvey on our own web server.

LimeSurvey has many features:

1. It is web-based and data can be entered from anywhere that has reliable Internet connection;
2. It presents respondents only with questions appropriate to them;
3. You can upload a list of names and email addresses to send a personalized invitation with a direct link to the survey, reminder non-responders, yet can promise anonymity;
4. You can upload other information to include as part of questions, or include prior open responses as part of questions;
5. Surveys can be written in 50 of the most common languages with parallel translations into the others--standard instructions automatic translate, but the author must translate the actual questions and fixed-response categories (or paste them in);

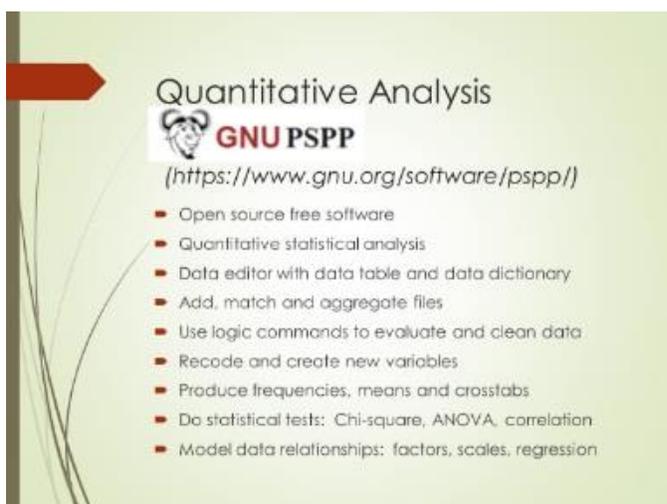


6. A public link to the survey can be placed on a website or other electronic communication;
7. Surveys can be printed for documentation, or for use in the field with later data entry;
8. Provides basic summaries and data can be download to other applications.

Analyze Data

Surveys can collect a great amount of data. But pieces of raw data seldom answer the research questions. That is where analysis comes in, often involving comparisons. Did one group have higher numbers than another? How does the answers to one question related to the answer to another question? Are there patterns in the answers to open-response questions? That is the value of using analysis software. I download data from LimeSurvey as a CSV or Excel file. I then input it into PSPP for analysis of fixed responses and numbers. I input it into QDA Miner to find patterns when respondents answer questions in their own words. One can do some basic analysis within LimeSurvey or Excel, but it is limited.

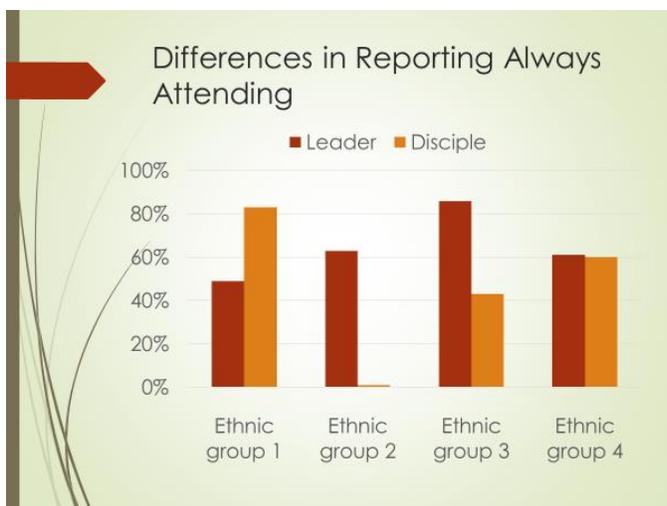
Quantitative Data Analysis: PSPP



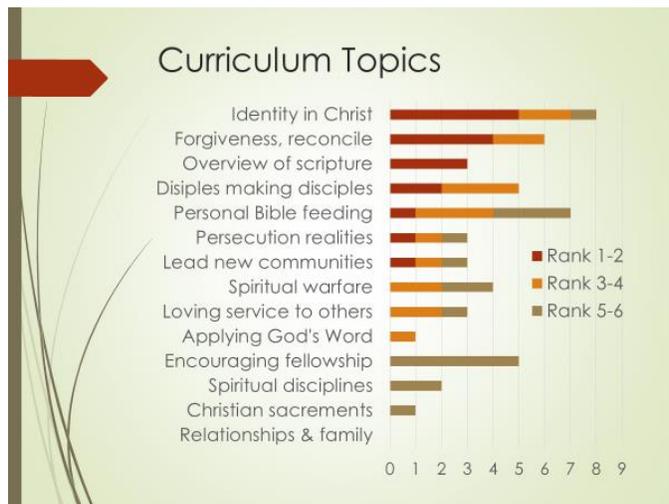
PSPP is open source software for quantitative analysis (<https://www.gnu.org/software/pspp/>). It is a free alternative to SPSS that is now owned by IBM and expensive. It has ability to calculate sophisticated statistics when the data justify them. But one does not need a statistical background to use most of its features.

PSPP has a data table that looks like a spreadsheet, but it is linked to a dictionary that identifies data with short variable names, long variable labels, and labels for numeric data. This enables you to have a numeric value of 1 with a label “strongly disagree,” and a numeric value of 4 to be labeled “strongly agree.” This is useful in comparing the average agreement to a set of statements or for creating new variables. It does take a little time to set up a dictionary with clear labels that define each data element, but then it is easy to run any type of analysis and have meaningful labels on the output.

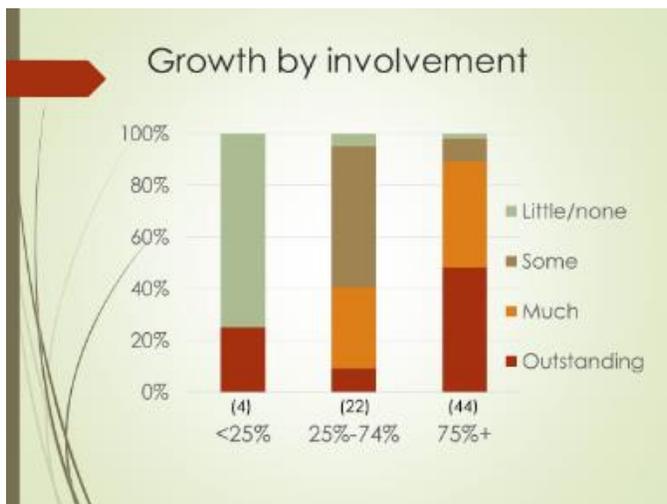
PSPP is very handy for manipulating and linking data files. Our project asked group leaders on the *Disciple Survey* how frequently each of the disciples attended the group. The disciples themselves were later asked the same question on the *Disciple Evaluation Survey*. PSPP allowed me to link what the group leader said with what the disciple said. They were the



same for only one of four ethnic groups with sufficient data for comparison. Ethnic group 1 disciples reported greater attendance than their leaders reported while ethnic group disciples 2 and 3 reported less frequent attendance than the leaders did. Linking files is also a good way to identify gaps in data. A close look at the numbers in an earlier slide showed eight *Ethnic Group Surveys* and ten *Training Program Surveys* were in the database. Linking them let us know if two of the training programs served the same ethnic group as others did, or whether two Ethnic Group Surveys had not been completed or entered into the database.



I use PSPP to calculate the frequency of responses to every question in the survey. This will be about half of my analysis in a report. As an example, the *Curriculum Survey* asked which of 14 topics the discipleship practices had in their curriculums. It then asked the directors to rank them by order of importance. Most directors ranked at least six. Identity in Christ as a new believer was always among the six and generally ranked first or second. Most practices also had a topic on personal feeding from the Bible, but only one director ranked it first or second.



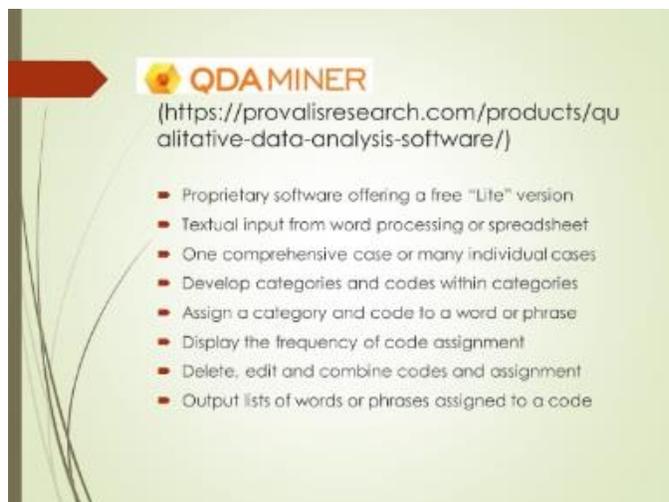
Most of the rest of my analysis for a report involves comparing the answers to two questions using cross-tabulations. I first analyzed how frequently leaders reported that disciples attended the meetings and how much they had grown in Christ. A cross-tabulation of the two showed a clear relationship. Three-fourths of the disciples who attended less than one-fourth of the time had little or no growth. Only one of the 44 who attended at least three-fourths of the time showed little or no growth.

PSPP can calculate statistical significance using Chi-squares, ANOVA, Factors, Scale

Reliability, bi-variate correlations, and multiple regressions when the data support these tests. I did not use these in this project since it had a small number of responses and came from a convenience sample.

Qualitative data analysis: QDA Miner

QDA Miner is a tool for qualitative analysis of textual data like respondents' answers to open-end questions (<https://provalisresearch.com/products/qualitative-data-analysis-software/>). It is proprietary software, but has a free "lite" version. In our project, interviewers wrote down disciples' responses to the question, "How did the Discipleship Group help you the most?" They were to record as many of the disciple's own words as possible. Were there common themes in their answers? We used QDA Miner to develop categories, and codes within categories. We



found such themes as understanding one's faith, finding a spiritual family, and learning to lead. Reviewing the frequency of the initial codes suggests modifying some and combining others. The final codes for individual disciples were exported and matched to the PSPP file using their identification numbers.

Tabulating the codes developed in QDA Miner showed:

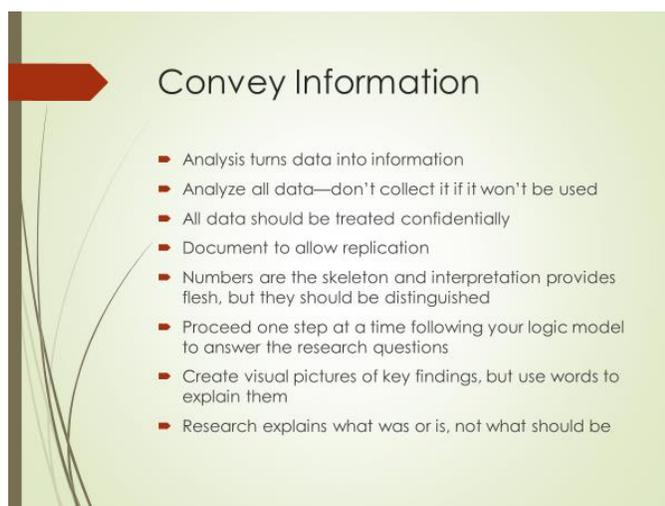
1. Over half of disciples in a Sahel country mentioned understanding and having confidence in their faith, with some expressing they were now able to defend it; one-fourth said that it gave them greater understanding of God, Jesus and the Bible; and some said that it led to a greater spiritual maturity or gave them a spiritual family.
2. Christian background disciples in a Middle East country focused on spiritual and faith growth, including two who found salvation during the training. Others said it helped them in Bible study and to prepare for service.
3. Sunni background disciples in a Middle East country all emphasized practical applications of living with Jesus and God's children, reading, and confessing their faith.
4. Disciples in a North African country – gave a wide range of responses that included encouragement in their faith, being a man of God or a better human being, and how to lead.

Convey Information

Turning Data into Information

Data has little meaning by itself. It is the understanding of the data through analysis that transforms it into useful information. I have several principles to guide in this transformation:

1. Analyze all data –We should be good stewards of the data that respondents have entrusted to us.
2. All data should be treated confidentially –The identity of individuals who provide data should never be revealed unless they explicitly give their consent. Name should never be written on



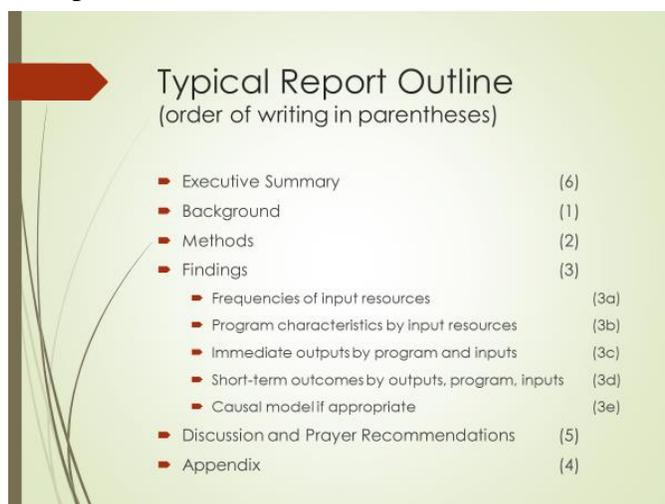
the form that contains data. Only tabulate data for groups of five or more, whether individuals or organizations.

3. All projects should be documented enough to be repeated, either by you or someone else. Details can be recalled with good documentation.
4. Numbers are important, but like a skeleton they come alive as we flesh them out in our interpretation. However, report readers should be able to distinguish between factual numbers and our interpretation.
5. Analysis of information should proceed one step at a time following the Logic Model from left to right.
6. Graphics help key data stand out and convey a lot of information. PowerPoint both helps me understand the data and helps communicate findings to others. However, words need to tell how to read the graphic.
7. Research helps us understand what was or is, but cannot tell what will or should be. The researcher's familiarity with the data can make suggestions. I like to do so as prayer recommendations.

Report Outline

I use the following outline in writing a research report:

- Executive Summary - Appears first, written last. It is about two pages with a paragraph for each section or subsection of the report, containing one or two key graphics and the prayer recommendations.
- Background –Contains the purpose and development of the project,
- Methods – Provides an overview of the methods used to collect data. Details can be given in an Appendix.
- Findings – The largest part of the report about what the research



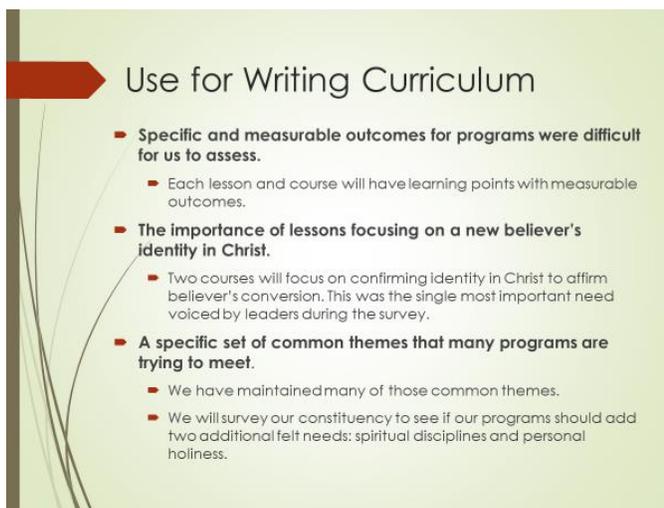
found. It is important to understand and document the frequency of responses one question at a time, starting with the resources box at the left of the Logic Model and progress to the right-most box for which data is collected. Cross-tabulations are valuable when the frequency can be further understood buy a previously analyzed response. This leads to the following order of findings:

- Frequencies of the numbers and characteristics of various input resources;
- Frequencies of the program characteristics, followed by cross-tabulations with key input resources;
- Frequencies of immediate outputs, followed by cross-tabulations with program characteristics and possibly some input resources;
- Frequencies of short-term outcomes, followed by cross-tabulations with immediate outputs, program characteristics and input resources;

- Causal models when the data permit that can test the Logic Model with multi-variate statistics. My favorite results in a PowerPoint path analysis based on multiple regression, but this is always the last 5-10% of the analysis
- Discussion and Prayer Recommendations – This is the section where the researcher can pull all the data together to provide a more complete understanding of the data as information. The researcher can evaluate the findings and make prayer suggestions, but must be careful not to stray too far from the data and suggest something not supported by the data.
- Appendix –Can provide detailed responses to open-end questions, details about the methods, and copies of the surveys.

Use of Information

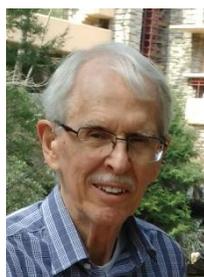
A researcher like myself does not always get to see how information is used. The close partnership between the ministry team and the research team gave me the satisfaction of seeing how the information in the research report will be used. The ministry team developed insights through collecting and entering the data. They requested analysis to confirm or put in context some of these insights. They then highlighted some findings and noted how they would be used when they forwarded the final report to all the directors of participating practices. This slide shows the first few highlights and planned use.



Use for Writing Curriculum

- **Specific and measurable outcomes for programs were difficult for us to assess.**
 - Each lesson and course will have learning points with measurable outcomes.
- **The importance of lessons focusing on a new believer's identity in Christ.**
 - Two courses will focus on confirming identity in Christ to affirm believer's conversion. This was the single most important need voiced by leaders during the survey.
- **A specific set of common themes that many programs are trying to meet.**
 - We have maintained many of those common themes.
 - We will survey our constituency to see if our programs should add two additional felt needs: spiritual disciplines and personal holiness.

In *Fruitful Discipleship Practices*, the ministry director not only envisioned the project but had concrete ideas how he would use it. It was his research project. The OC Global Ministry Team partnered with him on the research process. I have discussed that research process and the tools we used, with examples from the project. I now invite comments or questions you may have.



Gordon Bonham received his Ph.D. in sociology from the University of Michigan, USA. He has worked in applied social research for almost fifty years. He was a survey statistician with the U.S. Center for Health Statistics for 11 years, director of the survey unit at the University of Louisville Urban Studies Center for 8 years, director of the Towson University Center for Suburban and Regional Studies for 8 years, and as president of Bonham Research since. He has focused on mission research for the past 9 years as a Research Associate of the Global Research Team of OC International.