

Making it Work:

Using Data for Program Improvement

5th National Child Welfare Data Conference, National Resource Center

For Information Technology in Child Welfare

Designing and Implementing Computer-Assisted Interviews

April 12, 2002

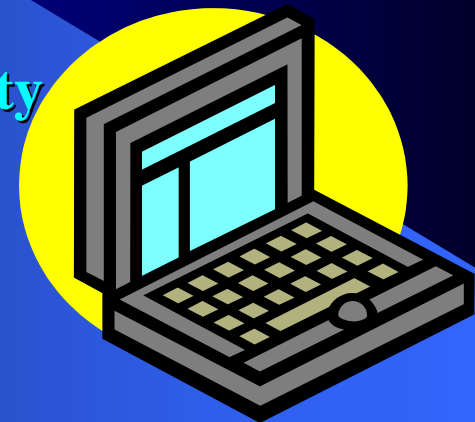
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Objectives

- **Discuss Advantages and Limitations of Computer-Assisted Interviews (CAI)**
- **Describe Use of Computer-Assisted Interviews with Two Child Welfare Programs**
- **Describe Process of Developing Computer-Assisted Interviews**
- **Describe Implementation of Computer-Assisted Interviews**

Definition of CAI

- Computer-Assisted Interview (CAI) –
 - Method of data collection
 - Alternative to paper and pencil interview (PAPI)
 - Survey questions displayed on computer screen
 - Questions answered using computer keyboard, mouse, touch screen, etc.
 - Interviewer administered or self-administered

CAI Terminology

- **CASI** = Computer-Assisted Self Interviewing

- **ACASI** = Audio-CASI



- **CAPI** = Computer-Assisted Personal Interviewing



- **CATI** = Computer-Assisted Telephone Interviewing



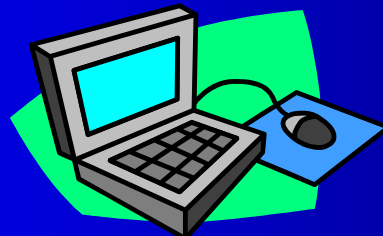
Background

- **CAI technology originates from:**
 - **academic research**
 - **government survey research**
 - **marketing research**

(Ramos, Sedivi, & Sweet, 1998)

- **Feasibility of CAI increased by computer technological development**

(Couper & Nicholls, 1998)

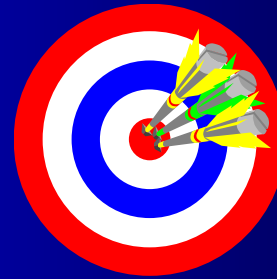


Use of CAI in Child Welfare

- **Applications in screening, assessment, and education, and outcomes evaluation**
 - **CAI with children regarding maltreatment** (Black & Ponirakis, 2000; DeVoe & Faller, 1999)
 - Sensitive questions presented to children aurally or visually
 - **CAI with adolescents regarding high risk behavior** (Paperny, Aono, Lehman, Hammas, & Risser, 1990)
 - 89% preferred computer
 - **CAI with parents of children referred to psychiatric services** (Sawyer, Sarris, Quigley, Baghurst, and Kalucy, 1990)
 - Significant # of parents preferred clinician/computer assessment or computer assessment over written assessment

Advantages of CAI

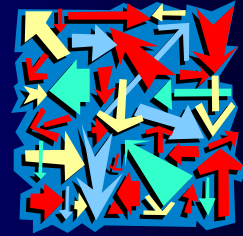
- **Increases accuracy of data collection**
 - **Built-in edit checks**
 - **Consistency**
 - **Completeness**



(Baker, Bradburn, & Johnson, 1994; Couper & Nicholls, 1998; Ramos, Sedivi, & Sweet, 1998)

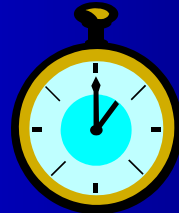
Advantages of CAI

- **Increases ease of handling complex questionnaires**



- Automated skip patterns, calculations, fill-ins decrease errors
- Decreases interviewer and respondent burden

- **Increases Timeliness**



- Combines data collection and entry phases of interviewing

(Baker, Bradburn, & Johnson, 1994; Couper & Nicholls, 1998)

Advantages of CAI

- **Increases Privacy → Decreases Response Bias**

- **Reporting sensitive behavior** (Ramos, Sedivi, & Sweet, 1998)

- **Drug use**

- **Adolescents reported significantly higher levels of alcohol and drug use in CAI than on PAPI** (Wright, Aquilino, & Supple, 1998)

- **84% of adolescents interviewed reported it would be “easier to talk more honestly with a computer than a person”** (Paperny, Aono, Lehman, Hammar, & Risser, 1990)

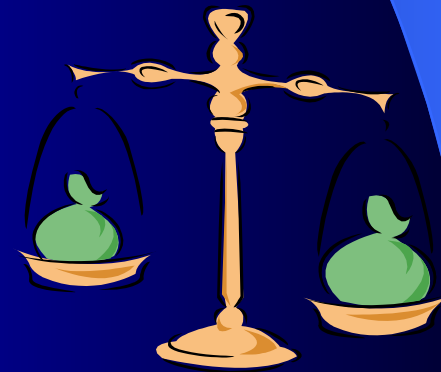
- **Sexual behavior**

- **Adolescent females identified reasons for preferring computer over PAPI— “easy, confidential, fun and interesting”** (Millstein & Irwin, 1986)

Advantages of CAI

- **Decreases Cost**


- Depends on program resources and type of survey
- **Higher front-end costs (computers, interviewer training)**
- **Lower back-end costs (data processing—entry and cleaning)**
- **Group interviewing**



Advantages of CAI

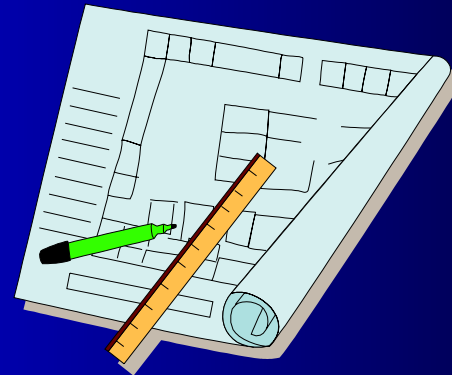
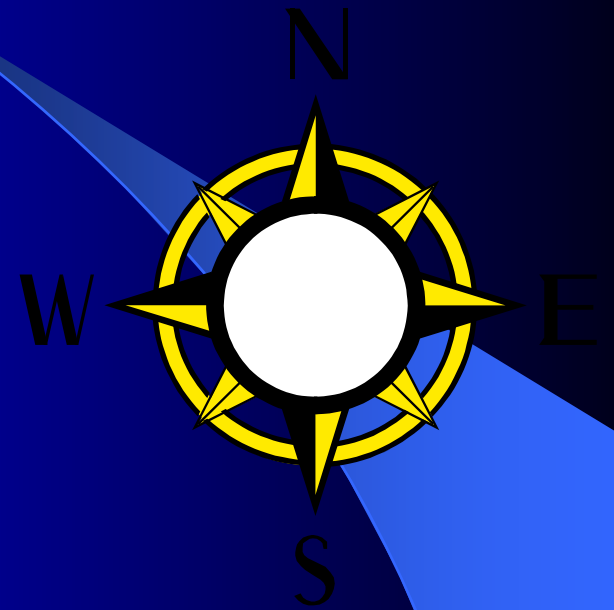
- **Appeal of CAI to Respondent**
 - **Novelty of computer**
 - **Computers perceived as nonjudgmental, objective**
 - **Interview facilitator perceived as more professional**
 - **Can be programmed to provide immediate personalized feedback/referrals based on responses** (Paperny, Aono, Lehman, Hammar, & Risser, 1990)

Limitations/Challenges of CAI

- **Computer phobic interviewees**
 - **Potential for technical problems during interview**
 - **Limitations (pertaining to CASI)**
 - Literacy issues
 - Vision problems
- overcome with 

**ACASI OR
CAPI**

CAI Development



CAI Development

1. Stating Your Question clearly

**“WHAT are you interested
in finding out?”**

CAI Development

1. Stating Your Question clearly

“WHOM do you want to interview?”

CAI Development

- Example: Outcomes of Independent Living

WHAT?

Outcomes



e.g., Educational achievement,
Avoidance of dependency,
High risk behaviors

CAI Development

WHOM?

**Those who left regular/ relative foster care
between 10/01/99 and 9/30/00 and
who were between ages of 18 and 21**

CAI Development

- Other example:
 - Project: Center for Substance Abuse & Prevention
 - Comparing outcomes before and after intervention
 - Will a family strengthening program be successful in helping families at risk for neglect achieve positive outcomes, prevent neglect and prevent familial substance abuse?

CAI Development

2. Formulating Interview Questions

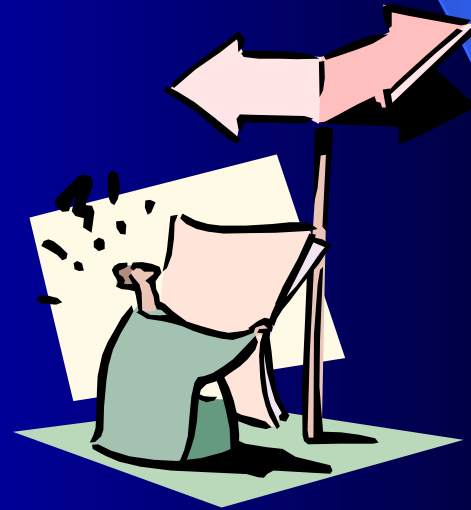
- **Guided by WHAT you want to know**
 - **Literature review**
 - Using standardized measures
 - Developing your own questions

CAI Development

Using standardized measures

Consider selecting measures that are:

- Relevant to your topic
- Not burdensome
(language, length)
- Reliable and Valid



CAI Development

Developing your own questions:

Consider (Aday, 1996):

- Utilizing group interviews, focus groups
- Utilizing in-depth individual interviews

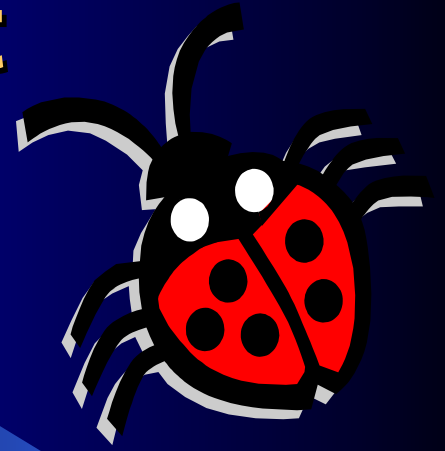
CAI Development

3. Programming Interview

(Ramos, Sedivi, & Sweet, 1998)

- **Using specific programming language**
- **Using Questionnaire Design Software (e.g., Ci3)**
- **Using Forms Design Software (e.g., JetForm)**

CAI Development



4. Debugging

– **Checking any programming errors**

e.g.,

– **Skip patterns working properly?**

– **Response categories working properly?**

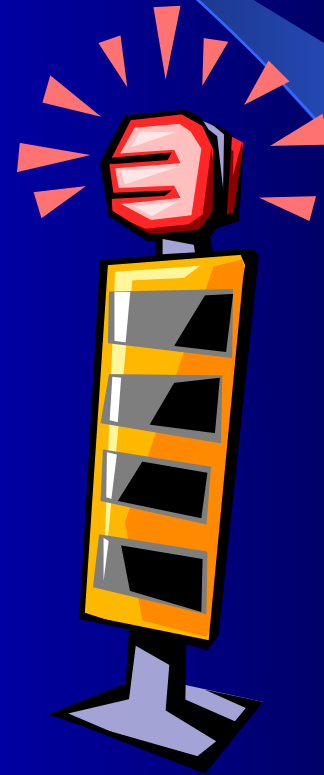
CAI Development

5. Pilot Testing

- **A trial run of the interview and data collection to evaluate (Aday, 1996):**
 - **Individual questions**
 - **The interview as a whole**

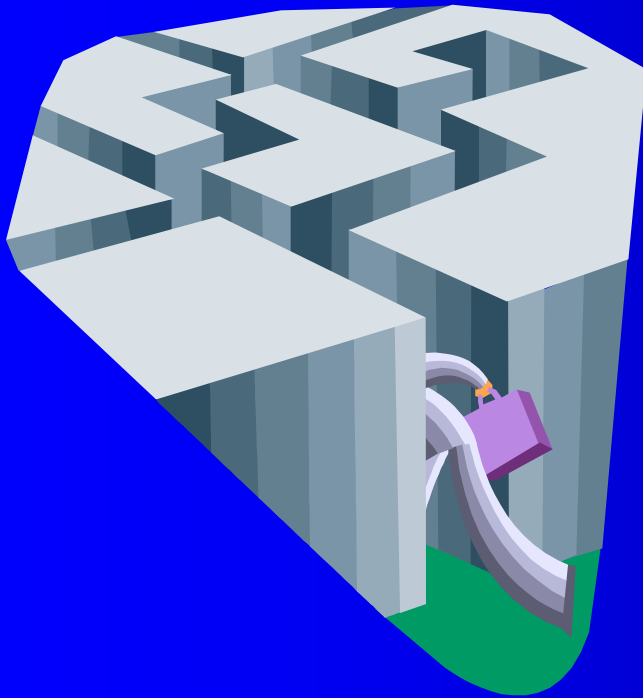
Organization of Content

- **Introduction**
- **Demographics**
- **Scales**
- **Conclusion**



Interview Structure

How to Begin :



- ❖ **Introduction**
- ❖ **Practice Questions**
- ❖ **Instructions**
- ❖ **Help Options**
- ❖ **Transitions**
- ❖ **Conclusion**

Example: Introduction Screen

WinQue

INTRO1

Hello! Thank you for agreeing to participate in the Baltimore City DSS Outcomes of Independent Living Project. What we learn from you will help us to understand how to best prepare young people in foster care to move from adolescence to adulthood. We value your thoughts and opinions.

Chances are, this is your first time to be interviewed using a computer. Almost like when you first learned to ride a bike or take a bus, at first it may seem hard, but after awhile it should be easier and you'll wonder what all the fuss was about. So, just sit back and relax...

At any time during this interview, you can always ask the project staff any questions you might have.

Hit any key to begin.

Previous Next Help

Example: Practice Question

WinQue

PRACTIC3

Other questions ask you to type in the information in an open box.

FOR EXAMPLE:

What is your favorite color?

(Please type your answer in the box)

PINK

Previous

Next

Help

Example: Instructions

WinQue

SSBINTRO

People help each other out in a lot of different ways. Suppose you had some kind of problem (were upset about something, needed help with a practical problem, were broke, or needed advice or guidance), how likely would (a) members of your family, and (b) your friends be to help you out in each of the specific ways listed in the following questions.

We realize you may rarely need this kind of help, but if you did would family and friends help in the ways indicated.

Try to base your answers on your past experience with these people.

Previous: SPACE/ENTER

Previous

Next

Help

Example: Instructions

WinQue

AAPI DIS

Choose DISAGREE if you feel you cannot support the statement or that the statement is not true some of the time.

Strongly Agree Agree Uncertain **Disagree** Strongly Disagree

Point to your answer using the <- and -> arrow keys, then press ENTER

Previous Answer Shown

Previous Next Help

Example: Help Option

WinQue

RHOUSE7

About how long have you been living here?

36

(Please indicate in MONTHS)

Help					
Yrs	Mths	Yrs	Mths	Yrs	Mths
1	12	21	252	41	492
2	24	22	264	42	504
3	36	23	276	43	516
4	48	24	288	44	528
5	60	25	300	45	540
6	72	26	312	46	552

OK

If less than two weeks, enter 0

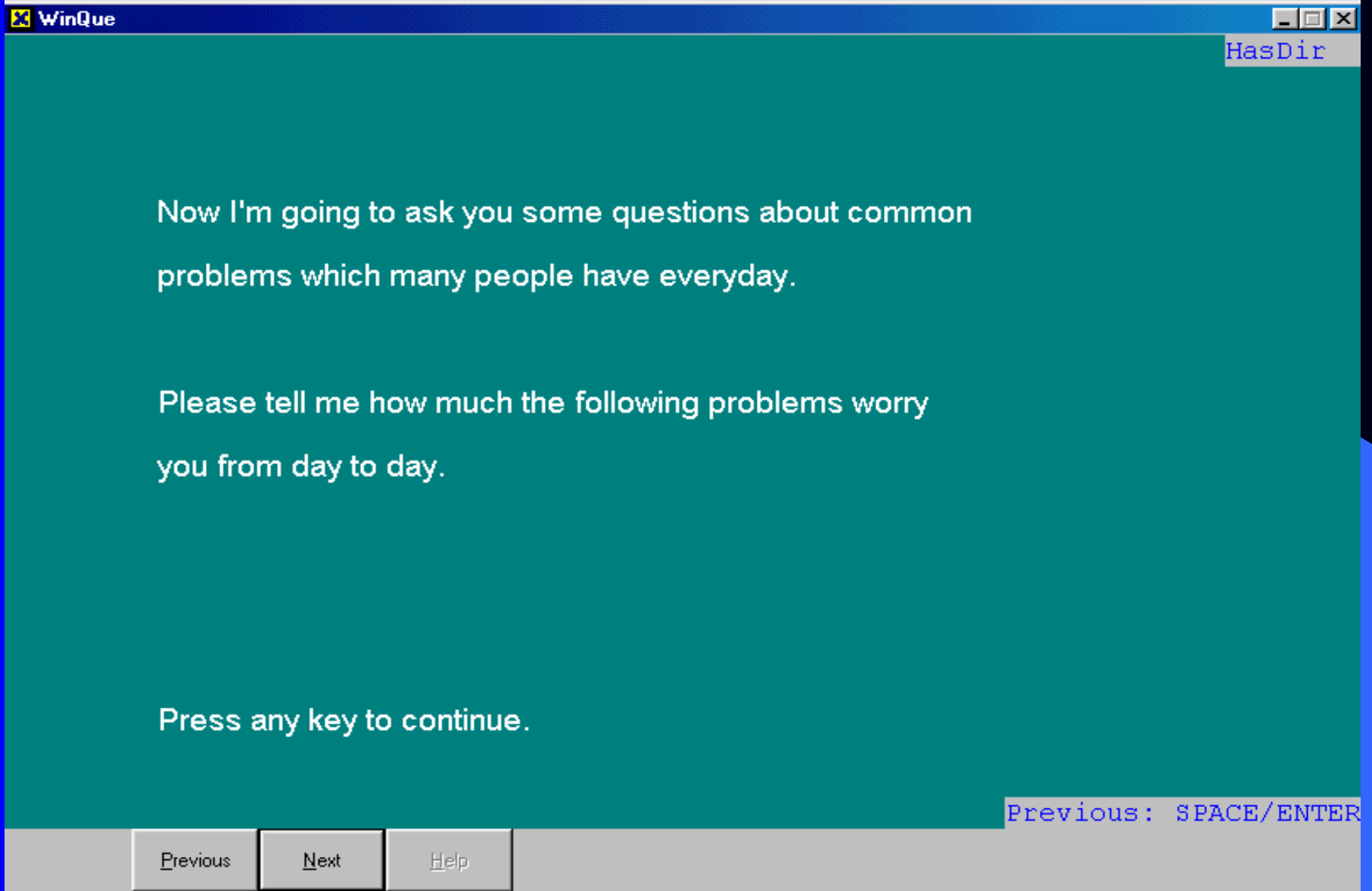
Press the Help Button at the bottom of the screen to convert years to months.

Previous

Next

Help

Example: Transition Screen



Example: Conclusion Screen

WinQue

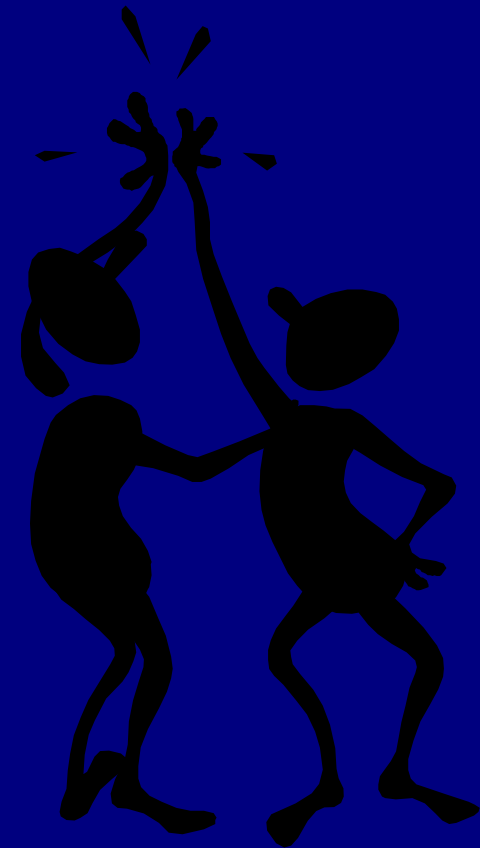
END

CONGRATULATIONS!

You have reached the conclusion of the interview!

Thank you very much for your cooperation.

Please feel free to ask the interviewer any questions or concerns you might have.

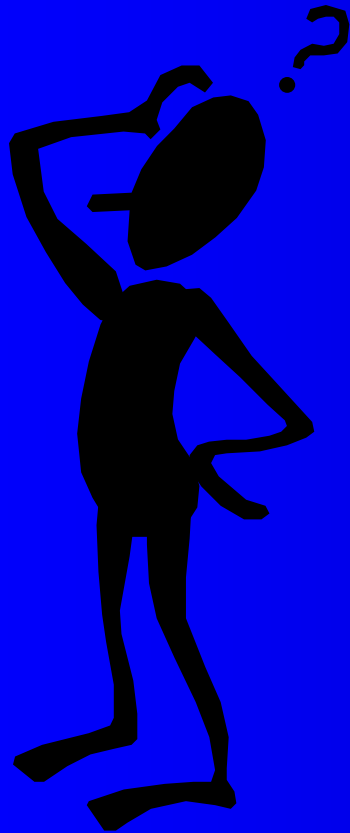


Previous

Next

Help

Types of Questions



- **Opened Ended**
- **Choose 1 Answer from a list**
- **Analog Selection – Bar format**
- **Selection: Check All that Apply**
- **Other Option**

Example: Open Ended

WinQue

RSSN

Please enter your social security number.

456-98-1593

Press ENTER (located on the right in the middle of the key board) or click on the NEXT key to go to the next question.

If you ever need to go back to the previous question to correct your answers, click on the PREVIOUS key.

NOTE: If you need to correct your answers, use the Backspace key in the upper right hand corner of the key pad.

If the Social Security Number is unknown, enter 888-88-8888

Previous

Next

Help

Example: Choose 1 Answer

WinQue

CESD11

How often did you feel or behave this way in the LAST WEEK?

My sleep was restless.

- | | |
|---|-------------------|
| 0 = Rarely or none of the time | (less than 1 day) |
| 1 = Some or a little of the time | (1 to 2 days) |
| 2 = Occasionally or a moderate amount of time | (3 to 4 days) |
| 3 = Most or all of the time | (5 to 7 days) |

(Press the appropriate number)



Previous

Next

Help

Example: Analog Selection

WinQue STEFPC9

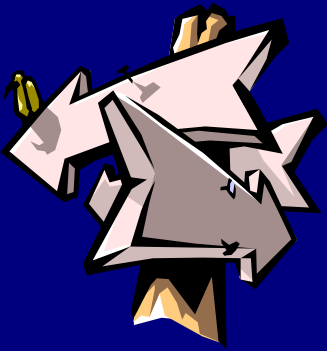
HOW OFTEN DO YOU DO THE FOLLOWING THINGS?

Ignore children when misbehaving?

Always Usually Sometimes Rarely Never

Point to your answer using the <- and -> arrow keys,
then press ENTER.

Previous Next Help



Example: Selection Type

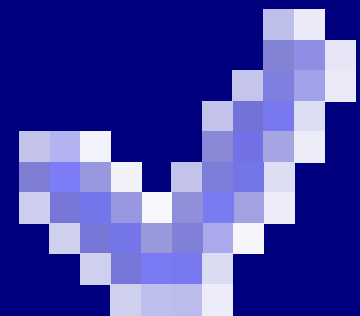
WinQue

15

Which ones have you used more than FIVE TIMES?

(Please check all that apply by using the arrow keys, then pressing the <spacebar>. When you are finished, press ENTER or Next.)

- MARIJUANA
- STIMULANTS
- SEDATIVES
- COCAINE
- CRACK
- HEROIN
- OPIATES
- METHADONE
- PCP
- PSYCHEDELICS



Previous

Next

Help

Example: Other Option

WinQue Rethnic

What is your ethnic or cultural background?

- 1 = African American
- 2 = Hispanic American
- 3 = Non-Hispanic White
- 4 = Asian American, including Pacific Islander
- 5 = Mixed ethnicity
- 6 = Other

OTHER SPECIFY

Native American

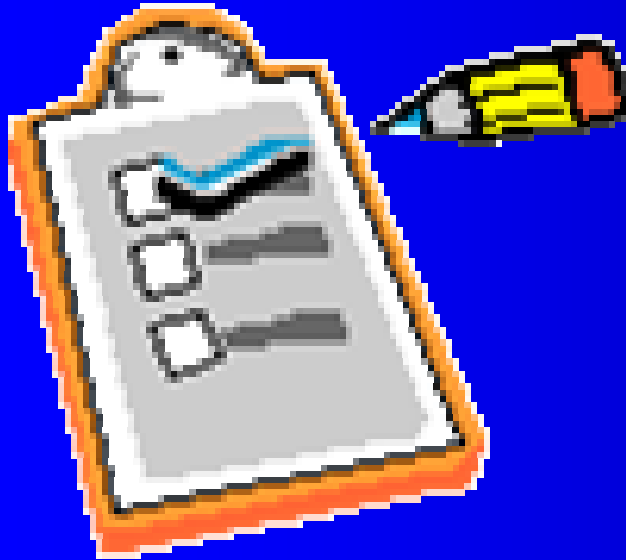
OK

(Please press a number)

Previous Answer: 6

Previous Next Help

Implementing CASI



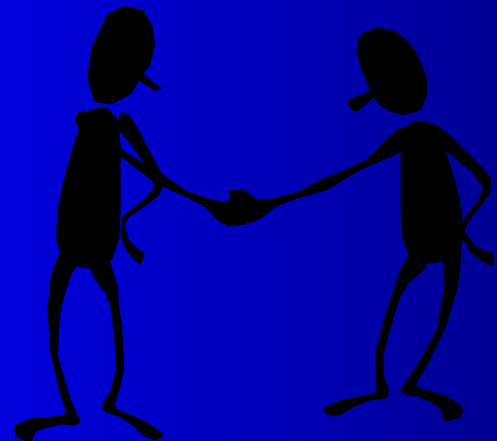
- **Establishing initial contact**
- **Developing a interviewer's manual**
- **Create specific interviewer training**
- **Assessing Computer Literacy and Comfort Level**
- **Interview Facilitation**
- **Continued Interviewer Evaluation**

Initial Contact

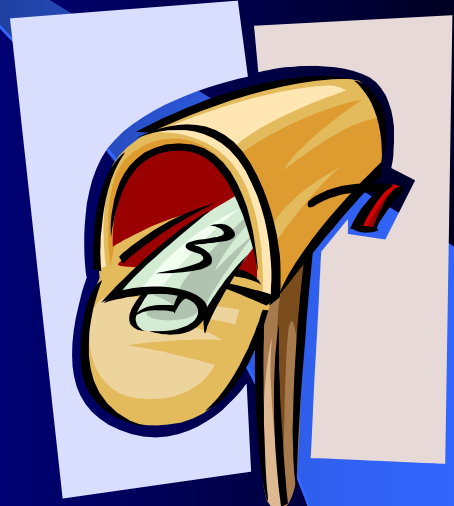
Phone Call



Personal Invitation



Letter



Interviewer's Manual

The University of Maryland
Center for Families Program

Interview Coordinator's Manual
Outcomes of Independent Living
Baltimore City Department of Social Services

Prepared by:

Dr. Diane DePanfilis, Ph.D., M.S.W., Principle Investigator

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School of Social Work

525 W. Redwood Street

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Program funded by: 02-5-23048



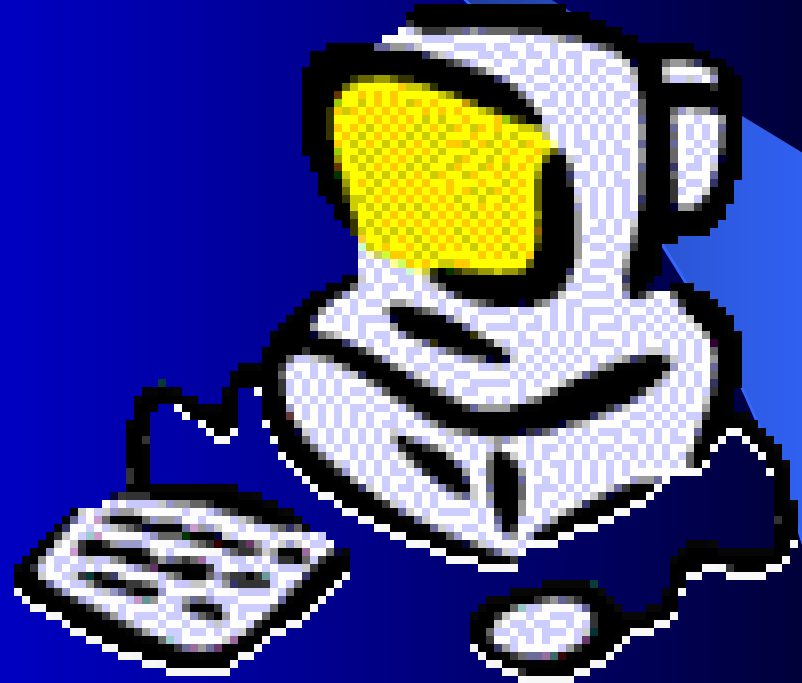
Training Interviewers

- **Understanding Project Specifics**
- **Understanding Procedures and Protocols**
- **Knowledge of:**
 - Purpose
 - Population
- **Comfort with:**
 - Computers
 - Scales
 - Population
- **Modeling**



Assessing Literacy and Computer Comfort

- Ask
- Observe
- Facilitate



Interview Facilitation

- **Assess the Situation**
- **Build Rapport**
- **Familiarize Respondent to Interview Process**
- **Provide Guidance and Assistance**



Continued Interviewer Evaluation



- **Validity and Reliability**
- **Continued Assessment**
- **Continued Development**

Application

Think About Your Organization



Who is your population?

What do you want to know?



References

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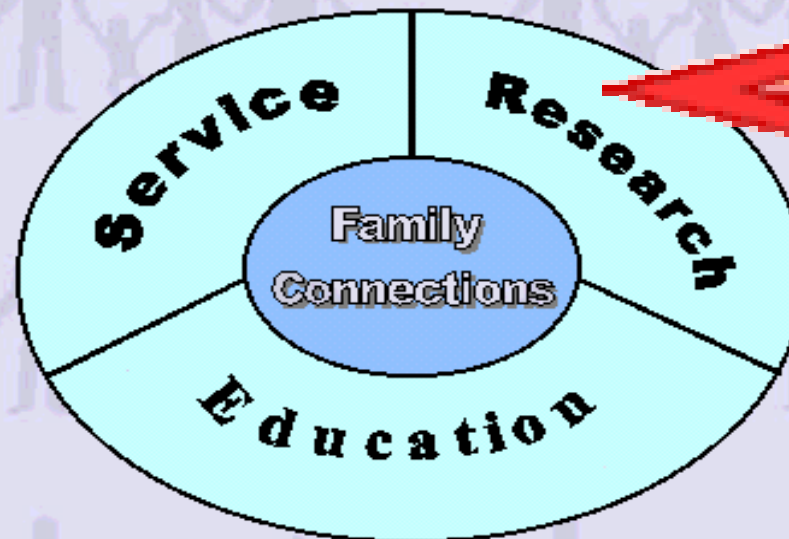
Family Connections Home Page - Microsoft Internet Explorer

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Family Connections
Families & Communities Working Together
Combining Service, Education, and Research to
promote safety and well being for children, families, and
communities.



School of Social Work



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