

Ag Extension: Leading Change in Onsite Wastewater

WHAT'S UP DOC? THE UNIVERSITY OF ARIZONA'S ONSITE WASTEWATER EDUCATION PROGRAM

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ROAD MAP

- A little about me (I didn't always want to be an Ag Engineer)
- Evolution not Revolution
- Arizona Dreamin' (or Where do we go from here?)
- Audience Response Tools



ABOUT ME

- Raised in Ohio
- Education
 - B.S. - Ag Engineering, University of Nebraska-Lincoln
 - M.S. - Ag Engineering, Purdue University
 - Ph.D. - Civil (Environmental) Engineering, Purdue University



ABOUT ME

- Academic Experience
 - Purdue University
 - Utah State University
 - University of Arizona-Yuma
 - University of Arizona-Tucson



ABOUT ME

- Work Experience
 - UN-L work after B.S. → Research
 - Ran soils laboratory between M.S. & Ph.D.
 - Performed consulting during Ph.D.
 - Extension Specialist activities
 - Utah State University
 - University of Arizona
- 2011 Extension Specialist of the Year Award



July

2013

ONSITE

installer

PROMOTING WASTEWATER TREATMENT QUALITY AND PROFESSIONAL EXCELLENCE www.onsiteinstaller.com

Is a vac truck
in your garage?
Page 8

Poor soils, steep slopes
a challenge in Colorado
Page 20

Percolation tests
serve a purpose
Page 24



TEACHING *Excellence*

Kathryn "Kitt" Farrell-Poe has developed educational programs that boost onsite knowledge and professionalism in her home state of Arizona and beyond **Page 12**

COVER GIRL

And Other Highlights

PUBLISHING INC.
COLE
PAID
U.S. POSTAGE

EVOLUTION NOT REVOLUTION

- UA Onsite Wastewater Education Program
 - 2002 – started NAWT Inspection classes
 - 2002 – started homeowner and RV park presentations
 - 2004 – started Soil & Site Evaluation classes
 - 2004 – piloted CIDWT O&M class
 - 2007 – started Intro to Design
 - 2009 – started CEU classes

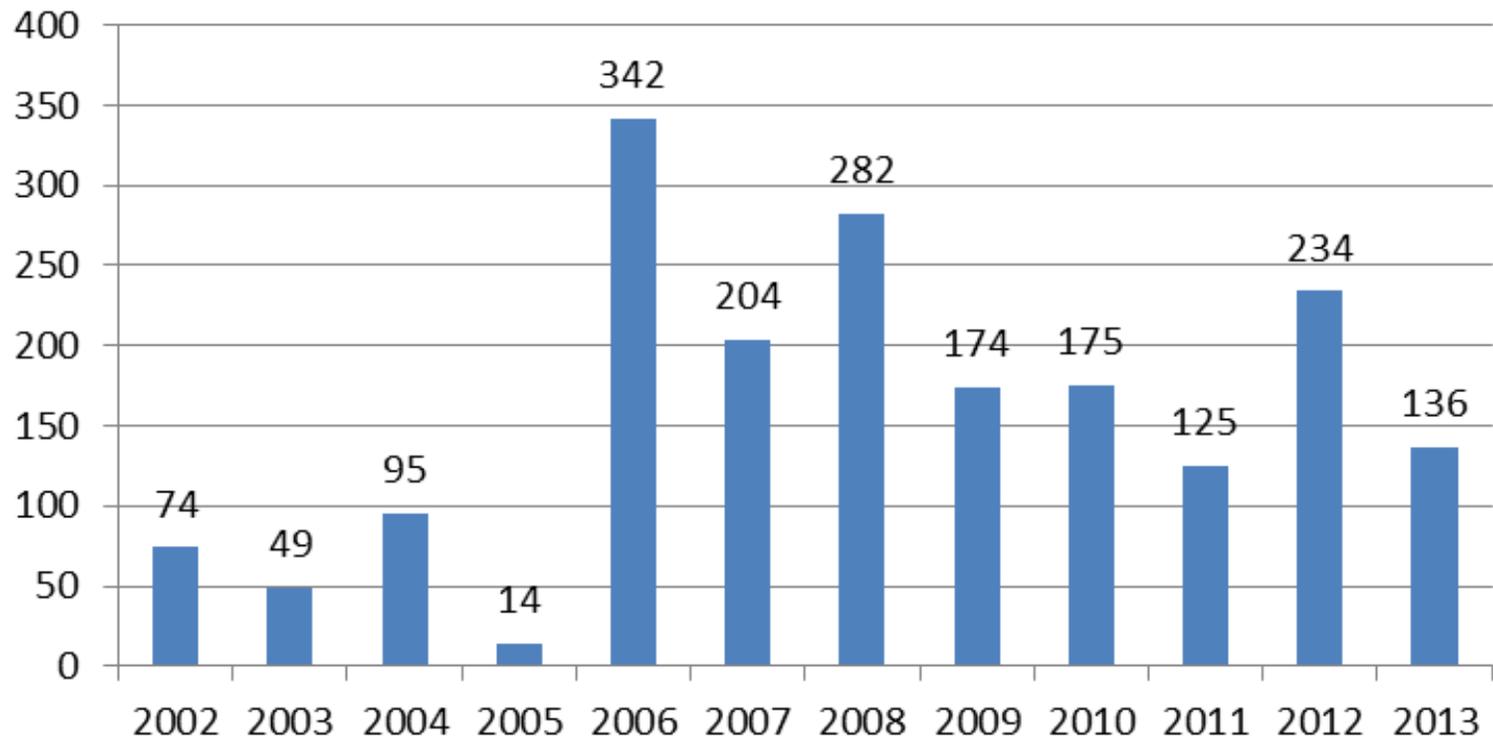
ONE SMALL STEP FOR KITT, ONE GIANT LEAP FOR ARIZONA ...

- Attended a NAWT training class
- Brought to Arizona as voluntary class
- Progressed to an optional class in order to qualify for State eligibility
- Now an Arizona state-approved course & fulfills a requirement
- Used as a pre-requisite for other classes



AZ INSPECTOR PROGRAM EDUCATION

NAWT Inspection Registrations

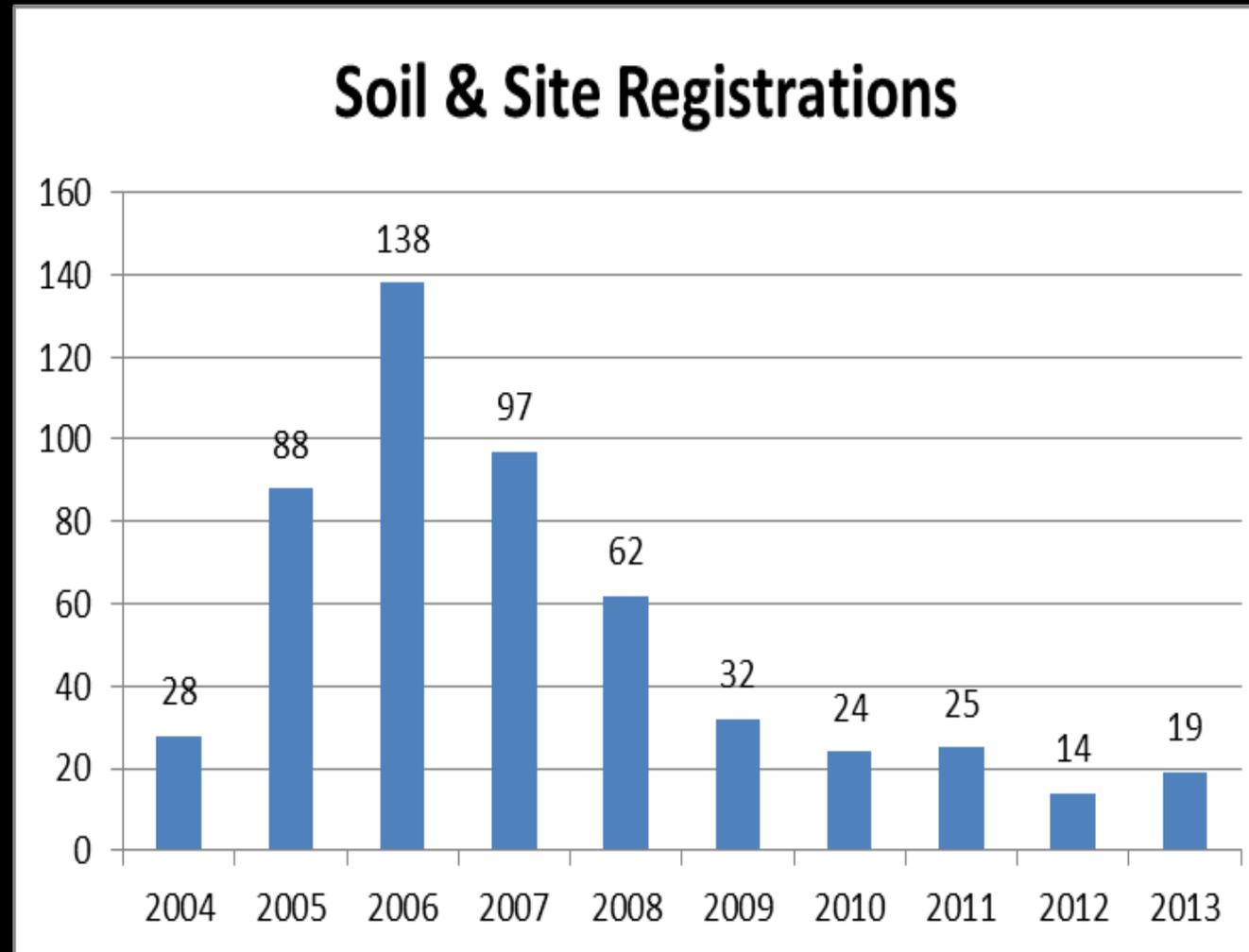


- Started in 2002 as voluntary effort by University of Arizona professor (me)
- 2014 piloting an Arizona exam addendum to NAWT exam



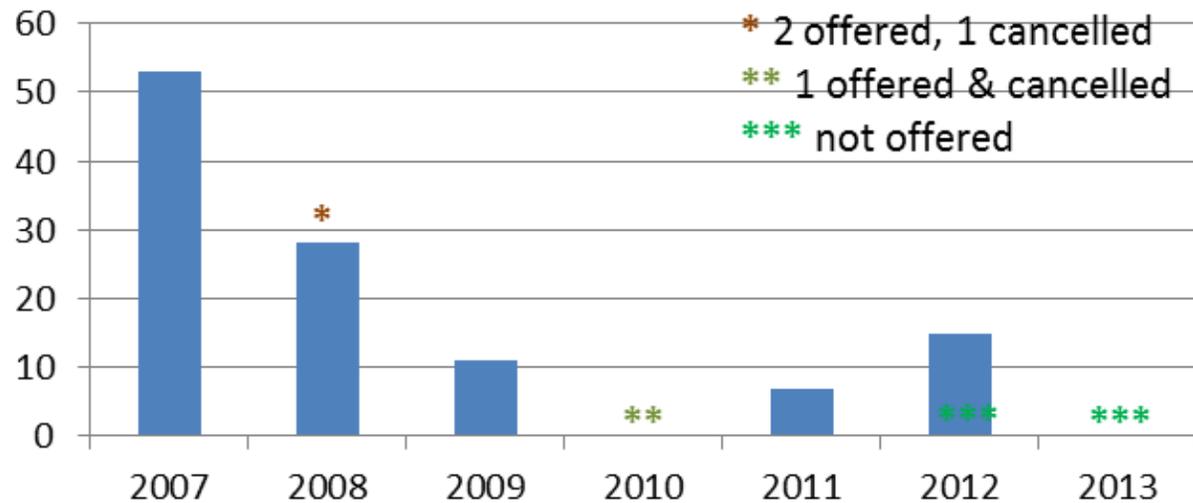
SOIL & SITE EVALUATION

- Used advisory committee to help design and critique class
- Developed Soil & Site Evaluation Manual that was edited by statewide committee
- Initiated “completion” exam in 2006
- No regulatory requirements for CEUs



INTRODUCTION TO DESIGN

Intro to Design Registrations



- No regulatory requirement for design classes
- Originally offered every year, now will be offering every other year

LESSONS LEARNED

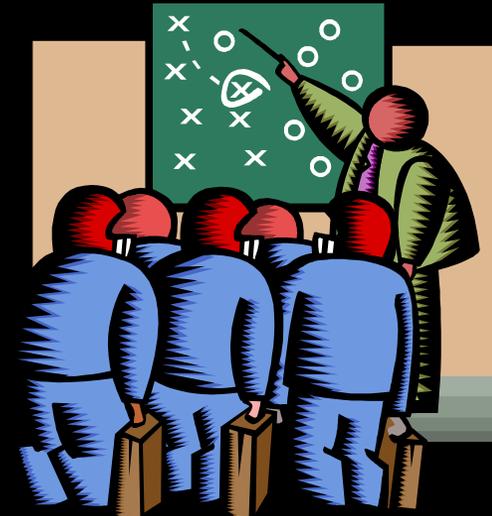
- If you build it, they will come (at least once)
 - Early adopters will attend new classes
- Without regulatory mandate, continuing education not sustainable
- Without State standards, education not consistent
- There is always a critic
- You get what you pay for (Education/Training not cheap (not a money maker])

EXTENDING THE UNIVERSITY

- Cooperative Extension = 1 part of 3-part System
 - Morrill Act of 1862 established Land Grant Universities
 - Hatch Act of 1887 established Agricultural Experiment Stations
 - Smith-Lever Act of 1914 created USDA-Cooperative Extension
- Mission: to Extend the knowledge and research gained through work at LGU
- Presence in every county in the nation!
- We strive to develop quality in educational programming
- Celebrating 100-year Anniversary in Cooperative Extension

ARIZONA DREAMIN' WHERE DO WE GO FROM HERE?

- Develop Need-to-Know Statements for each onsite wastewater profession
- Develop Learning objectives for each class
- Open the rule to update antiquated/poorly written rules
- Provide resources for enforcement
- Get rid of, once and for all, use of cesspools
- A world where all professionals want to **AND do** protect human health & the environment



AUDIENCE RESPONSE SYSTEMS

CLICKERS!

- Used for
 - Gathering demographics
 - Assessing knowledge, gauging attitudes
 - Seguing into new material
 - Pre-test/Post-test assessments
 - Longitudinal information

My Clicker Style: *NXT*

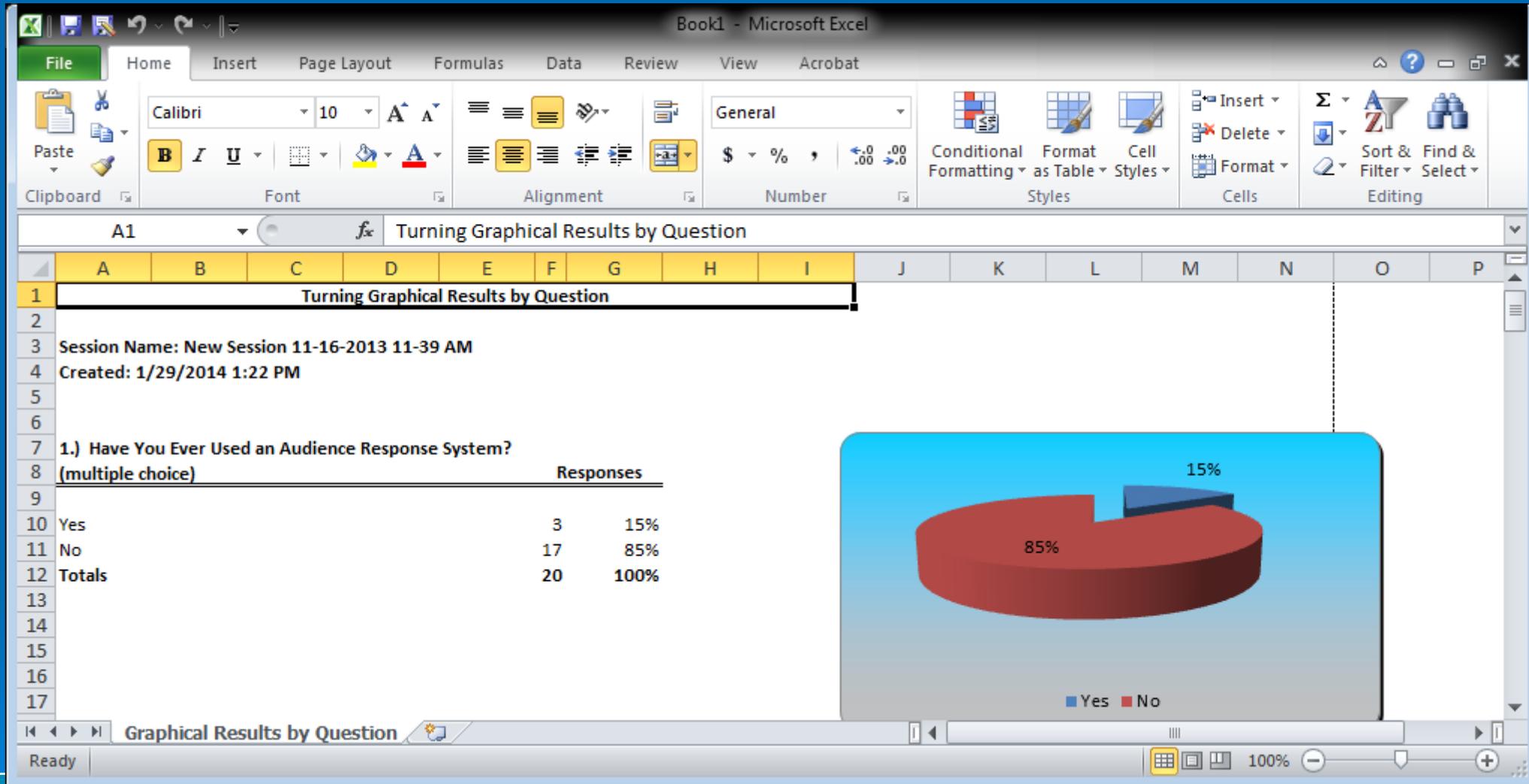
Let's Practice

- To get your clicker to “wake up,” press the middle button
- When a question appears on the overhead screen, and with the keypad in your hand, press the number/letter which best fits your answer
- Watch for your response



Have You Ever Used an Audience Response

- 1.
- 2.



Response Counter

Yes

No

How Would You Classify Yourself?

1. Homeowner
2. Renter
3. Regulator
4. Realtor
5. Educator
6. Practitioner
7. Other

0%

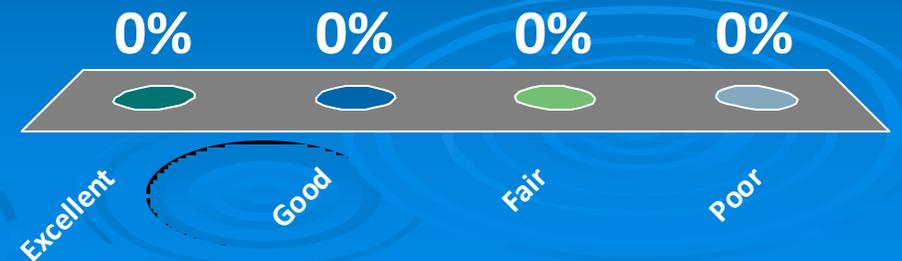
Response
Counter

Homeowner Renter Regulator Realtor Educator Practitioner Other

How would you rate your current level of understanding of septic systems?

1. Excellent
2. Good
3. Fair
4. Poor

Response
Counter



Have you attended any previous UA septic system workshops?

1. Yes
2. No

Response
Counter



Garbage disposal usage:

1. Yes, I have one, and use it with pride!
2. Yes, I have one, and don't use it often.
3. No, I don't have one.
4. I don't own a septic system.



Response
Counter

Garbage Disposals

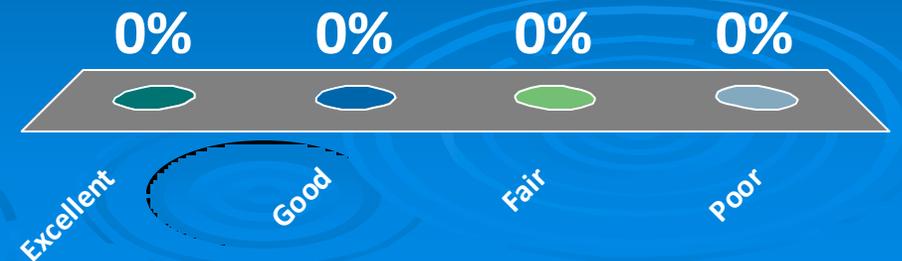
- Higher risk of solids carryover to drainfield
- Recommend composting kitchen scraps
- If used, then increase septic tank size (2X)
- Expect to pump solids more often (2X)
- Use an effluent screen



After the presentation, now would you rate your current level of understanding of septic systems?

1. Excellent
2. Good
3. Fair
4. Poor

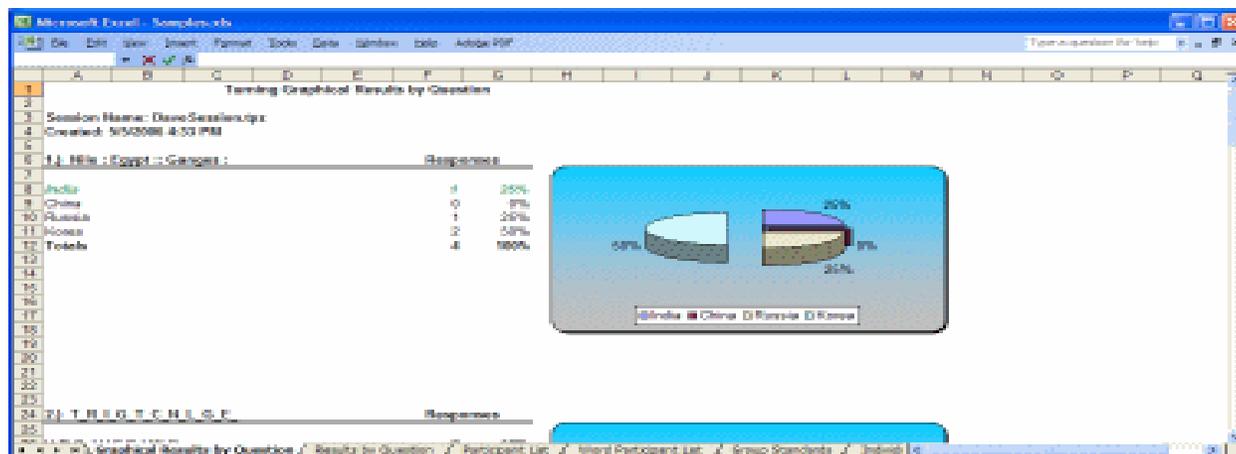
Response
Counter



Please select the report(s) to generate

Reports by Category

- Results by Question Reports
 - Graphical Results by Question
 - Results by Question
- Demographic Reports
- Participant Results Reports*
- Results by Participant Reports*
- Standards Reports
- Comparative Scoring Reports
- Percentile Reports*
- Other Reports



Description and Report Sample
Report Description

Aggregate report displaying results with charts on a per question basis

Categories in italics have options

Change numeric responses to alphabetic responses (1 = A, 2 = B, etc)

Exit

Generate Report

The background features a dark, almost black, field with dynamic, flowing, ribbon-like shapes. On the left side, there are vibrant green waves that curve upwards and then downwards. On the right side, there are bright orange and yellow waves that curve downwards and then upwards. The overall effect is one of movement and energy.

QUESTIONS?