Using Virtual Reference Services to Embed the Library in the Academic Workflow

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"The convenience is still better online than in person, you don't have to make trips to the library."

(UTI-24, MALE 15-18 YEARS OLD)

- **_Then_**: The user built workflow around the library

- **_Now_**: The library must build its services around user workflow

- **_Then_**: Resources scarce, attention abundant

- **_Now_**: Attention scarce, resources abundant

(Dempsey, 2008)

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Getting information off the Internet is like taking a drink from a fire hydrant.
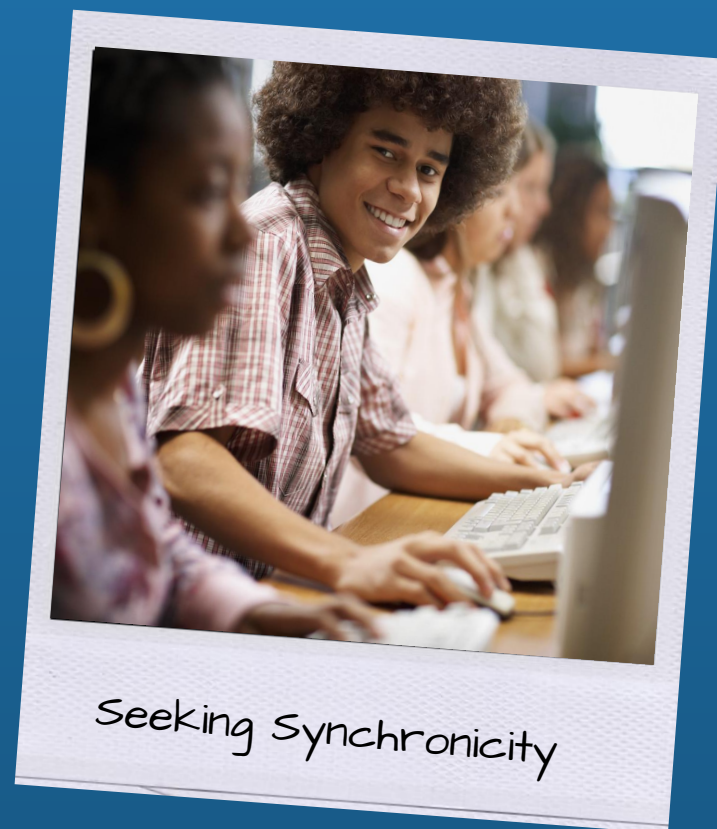
Mitchell Kapor

- **Global reach**

- **Anytime/anywhere access**

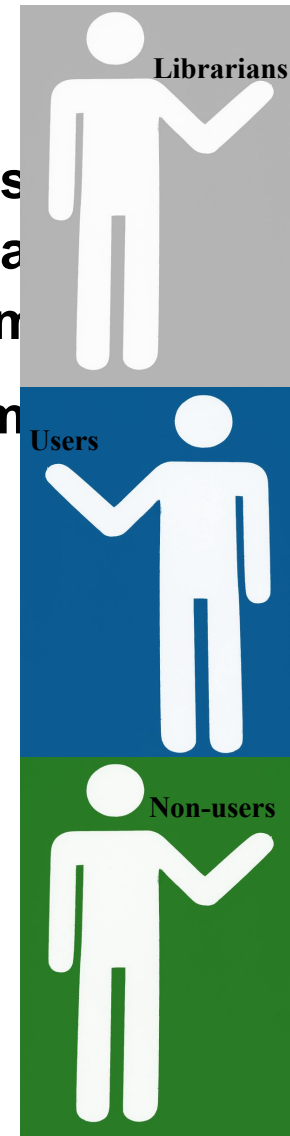- **Cooperative services may reduce costs**

Seeking Synchronicity
The Study

Seeking Synchronicity

- **Studied habits & needs of virtual reference s_____S) librarians, users, & non-users to identify cha_____s for informing library system & service developm_____**

- **Generalizable through large sample sizes, m_____hods of data collection, & triangulation of results**
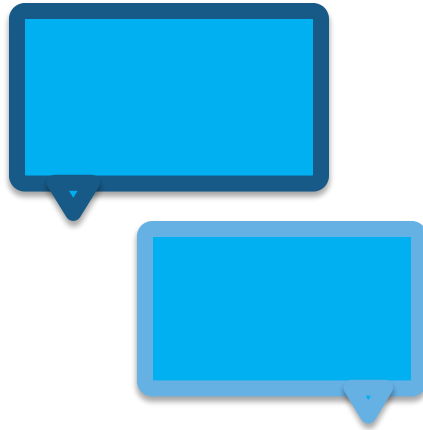
(Connaway & Radford, 2011)

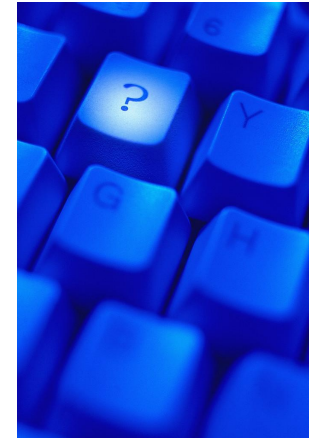# Seeking Synchronicity Phases

Phase I:
Focus Group Interviews

Phase II:
Transcript Analysis

- 850 QuestionPoint live chat transcripts

Phase III:
Telephone Interviews

- 100 VRS Librarians
- 76 VRS Users
- 107 VRS Non-users

Phase IV:
Online Surveys

- 173 VRS Librarians
- 137 VRS Users
- 134 VRS Non-users

- **Flanagan (1954)**
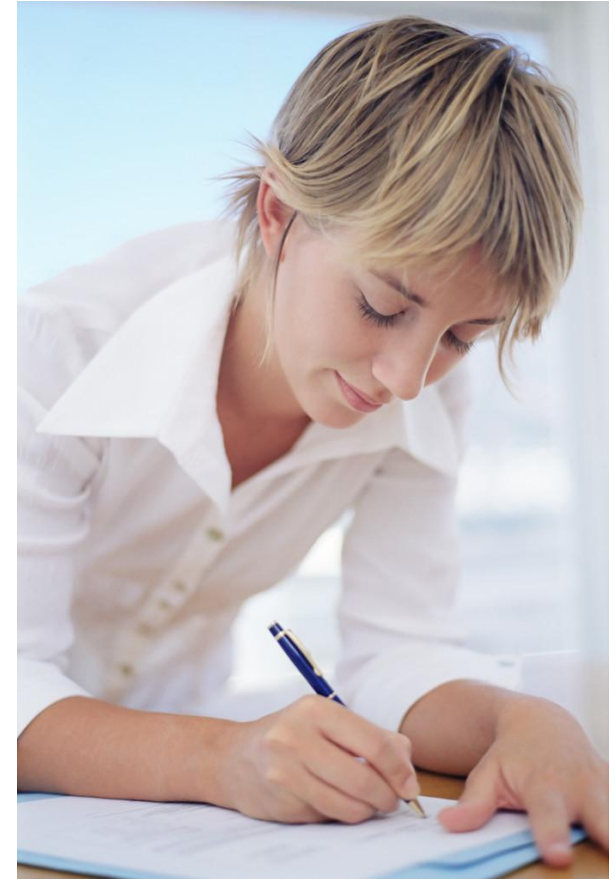
- **Qualitative technique**

- **Focuses on most memorable event/experience**

- **Allows categories or themes to emerge rather than be imposed**

(Flanagan, 1954)

- **Remember 1 specific *successful* VRS interaction**

- **Remember 1 specific *unsuccessful* VRS interaction**

- **Describe each interaction**

- **Identify factors that made interactions successful or unsuccessful**

Seeking Synchronicity

Types of Questions

Types of questions
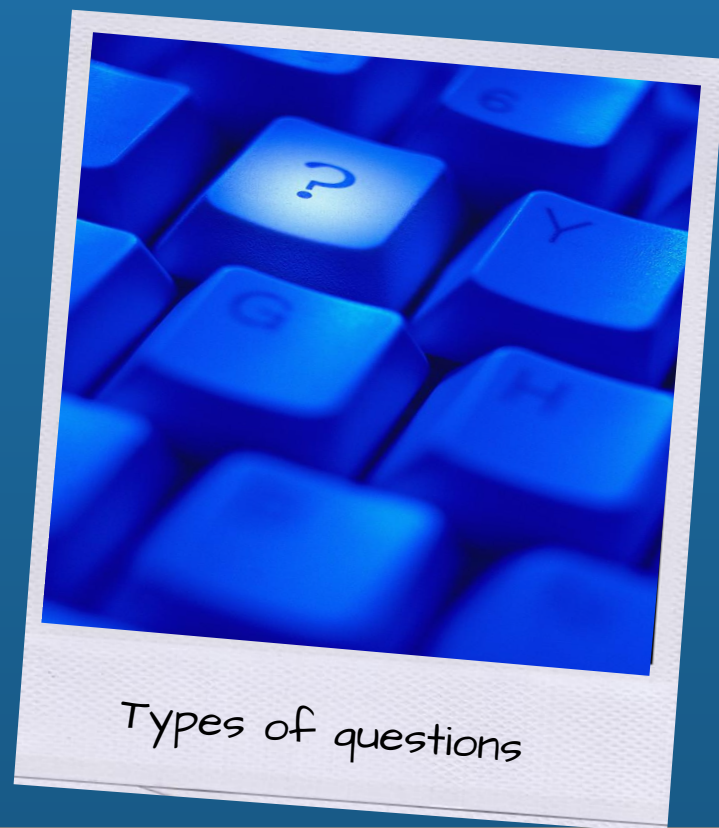
What politician supports gay rights and or is an activist for them
QP2-282

how many books can i check out at one time?
QP2-276

...he Mindful Child: How ...o Help Your Kid Manage ...tress and Become ...appier, Kinder, and More ...Available?

How do I get a job and what are the requirements?
QP2-274

I need some help with finding articles
QP2-273

how do you spell I miss you in spanish

I need a good website about the history of DESIGN of telephones with a timeline and good pictures with it.
QP2-269

Cannot log in, telling me authentication failed. Was able to log in yesterday.
QP2-269

Types of VR Questions

- **Subject Search**

- **Ready Reference**

- **Procedural**

- **No Question**

- **Holdings**

- **Research**

- **Inappropriate**

- **Directional**

- **Reader's Advisory**

(Arnold & Kaske, 2002,2005)

Subject Search or Specific Search

"Almost always takes the form of giving the user a document, for example, a list of citations, a book, or a report" (Arnold & Kaske, 2005).

How was the labeling theory important in deinstitutionalization? (QW–023)

can you help me find poems by Maya Angelou and criticism on them? (QP1–230)

Where can i find information about ADHD? (QP2–005)

"These are the typical ready-reference or data queries that require only a single, usually uncomplicated, straightforward answer...Who? What? When? Why? Where?" (Arnold & Kaske, 2005).

who won the world cup game between south africa and france?

(QW–024)

Who was Bentonville, NC named after?

(QP1–147)

How do i cite a political talk show in MLA format?

(QP2–013)

"Questions pertaining to the policies or procedures within the library system" (Arnold & Kaske, 2005).

Can I get summer long term renewals online? How? (QP1–004)

what is the max for checkout on blu ray dvids? (QW–033)

need access logon info to lexis from scool library website (QP2–027)

"Questions about specific holdings of a library in print or digital form" (Arnold & Kaske, 2005).

I was wondering if you have textbooks to rent for an hour or 2?
(QP2–172)

Do you have any books on Paris Hilton? (doing a project on her)
(QP 1–195)

hi there; i was wondering if you guys have Moby Dick in stock?
(QW–014)

"Research questions… involve trial-and-error searching or browsing… [and] are usually identified as coming from an adult specialist who is seeking detailed information to assist in specific work" (Arnold & Kaske, 2005).

Looking for information on national traffic survey and incident reports. (QP2–169)

Hi, I am trying to find out information on how the Learn Direct initiative was started, the criteria that was set and if local government had to be involved in the first stage. (QP 1–155)

Hi I'm looking for studies similar to one I've already found. How do I go about this? (QW–013)

"Questions which are not appropriate for a reference service including personal questions" (Radford, 2005).

How do I have sex? (QP1–159)

WAT DOES it mean when a guy said he like me more as a friend doesnt it mean like a gf? (QP2–153)

Are You Typing War and Peace (QW–020)

Directional

"The general information or directional question is of the information booth variety…" (Arnold & Kaske, 2005).

what is the URL for the summer reading program for teens?
(QP2–032)

I heard that you have adapted book kits for ESL speakers. Where can I find these online?
(QW–008)

Where is the 67th street library? Is it on the west or east side?
(QP1–387)

Query Type: 2004-2006

Bar chart showing query types for '04 – '06 (n = 915):
- Subject Search: 32%, n=293
- Ready Reference: 27%, n=243
- Procedural: 18%, n=162
- No Question: 11%, n=104
- Holdings: 8%, n=77
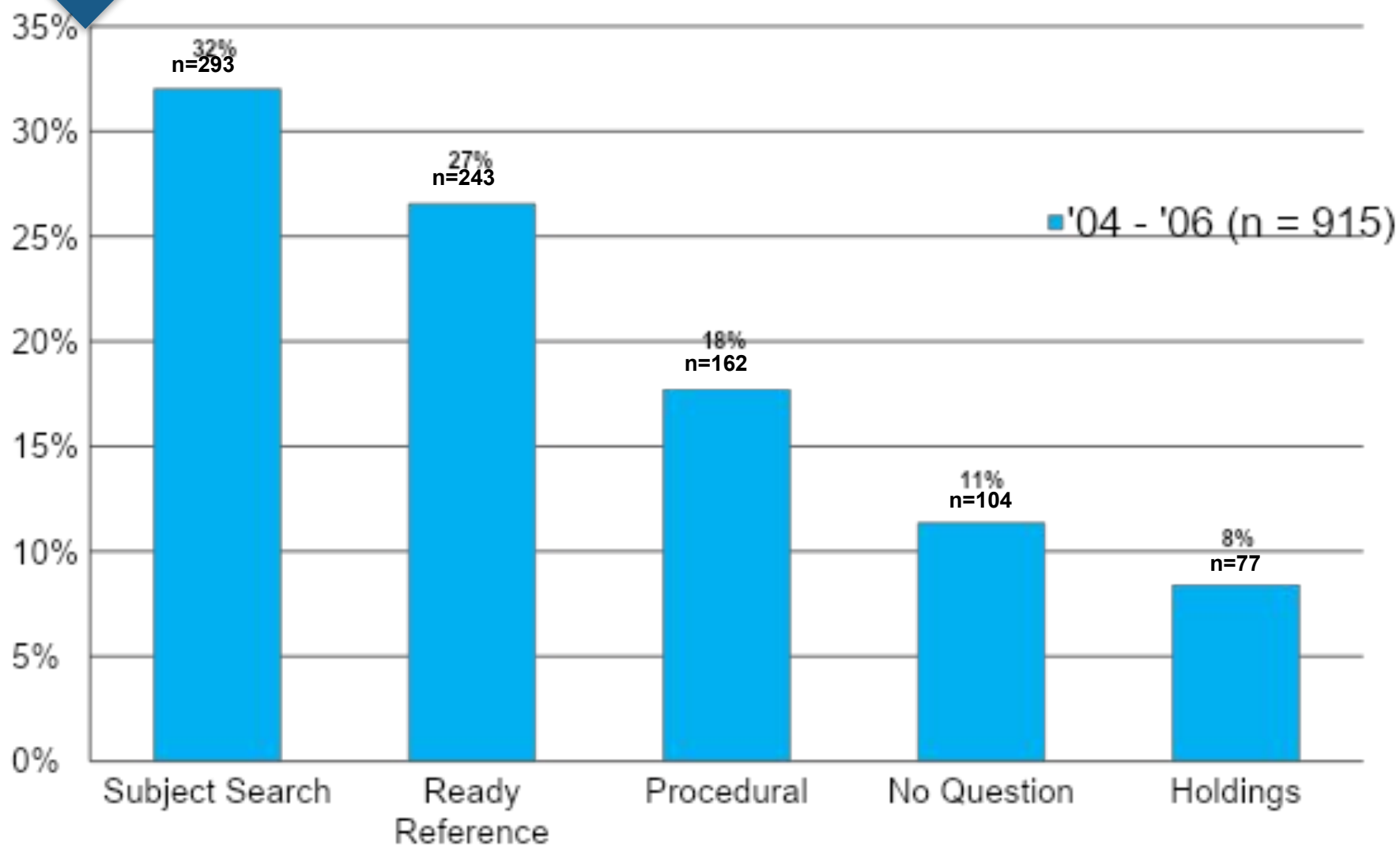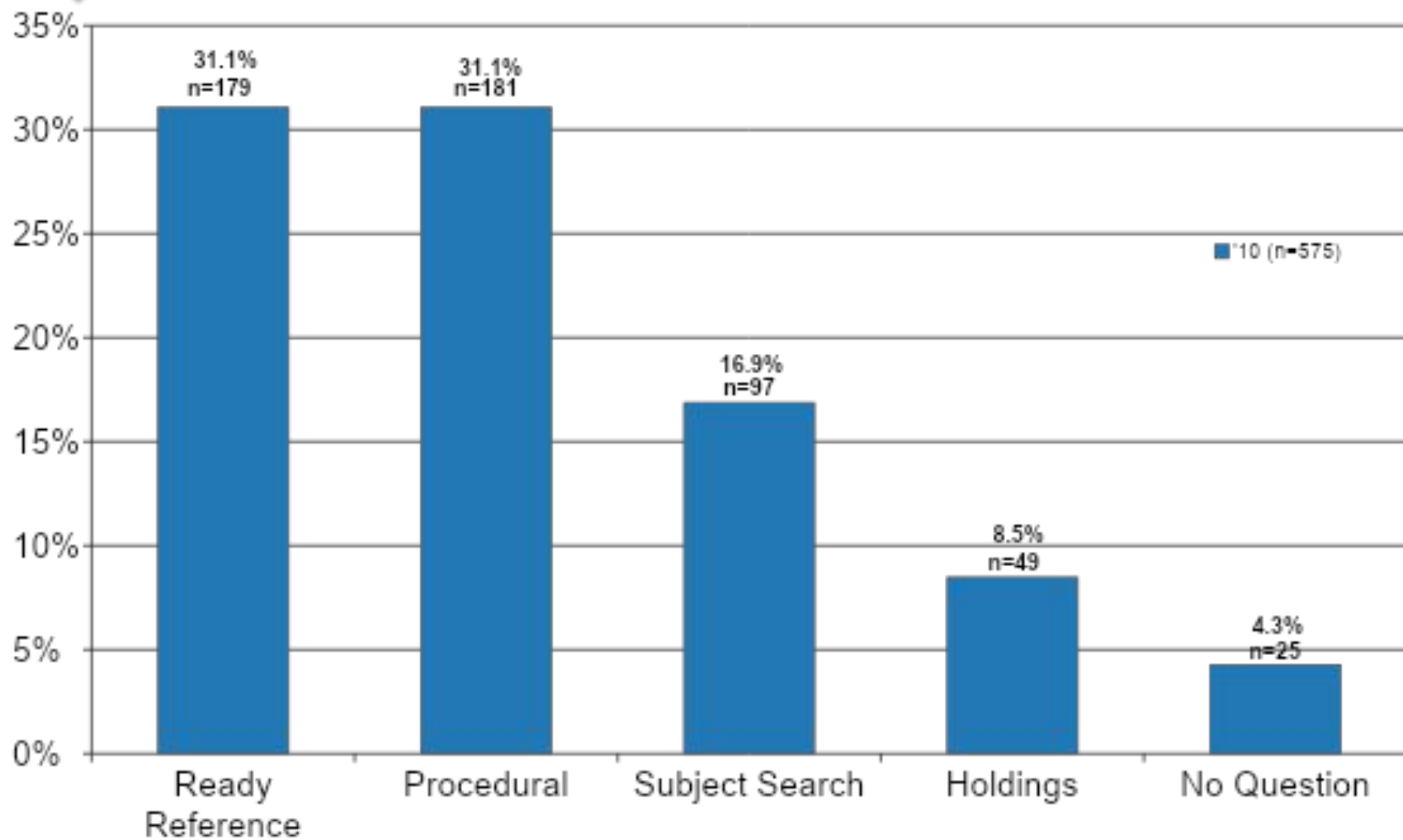
Query Type 2010: Live Chat (QP2) vs. Qwidget (QW)

Legend:
- QP2 (n=366)
- QW (n=209)
- Total (n=575)

Query Type	QP2	QW	Total
Ready Reference	22% n=127	9% n=52	31% n=179
Procedural	17% n=99	14% n=82	31% n=181
Subject Search	13% n=74	4% n=23	17% n=97
Holdings	4% n=25	4% n=24	8% n=49
No Question	2% n=11	2% n=14	4% n=25

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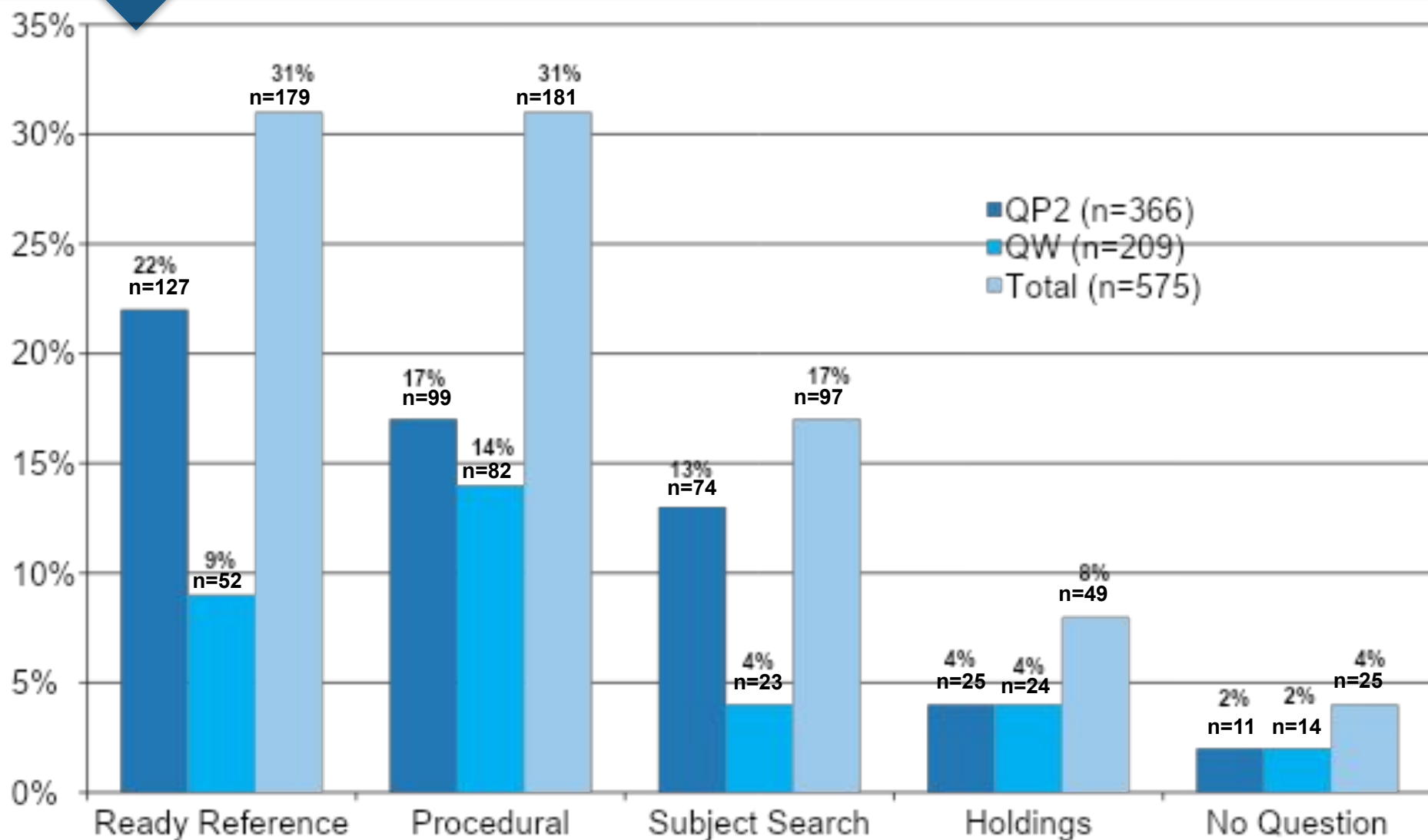
Ready Reference Questions (2004-2006 vs. 2010) Received by Type of Chat Service

Legend:
- '04-'06 (n=162)
- '10 (n=168)

Type of Chat Service	'04-'06	'10
Consortium	28% (n=45)	40% (n=68)
Academic & Law	21% (n=34)	39% (n=65)
Public	36% (n=59)	20% (n=33)
National	12% (n=20)	<1% (n=1)
Other	2% (n=4)	<1% (n=1)

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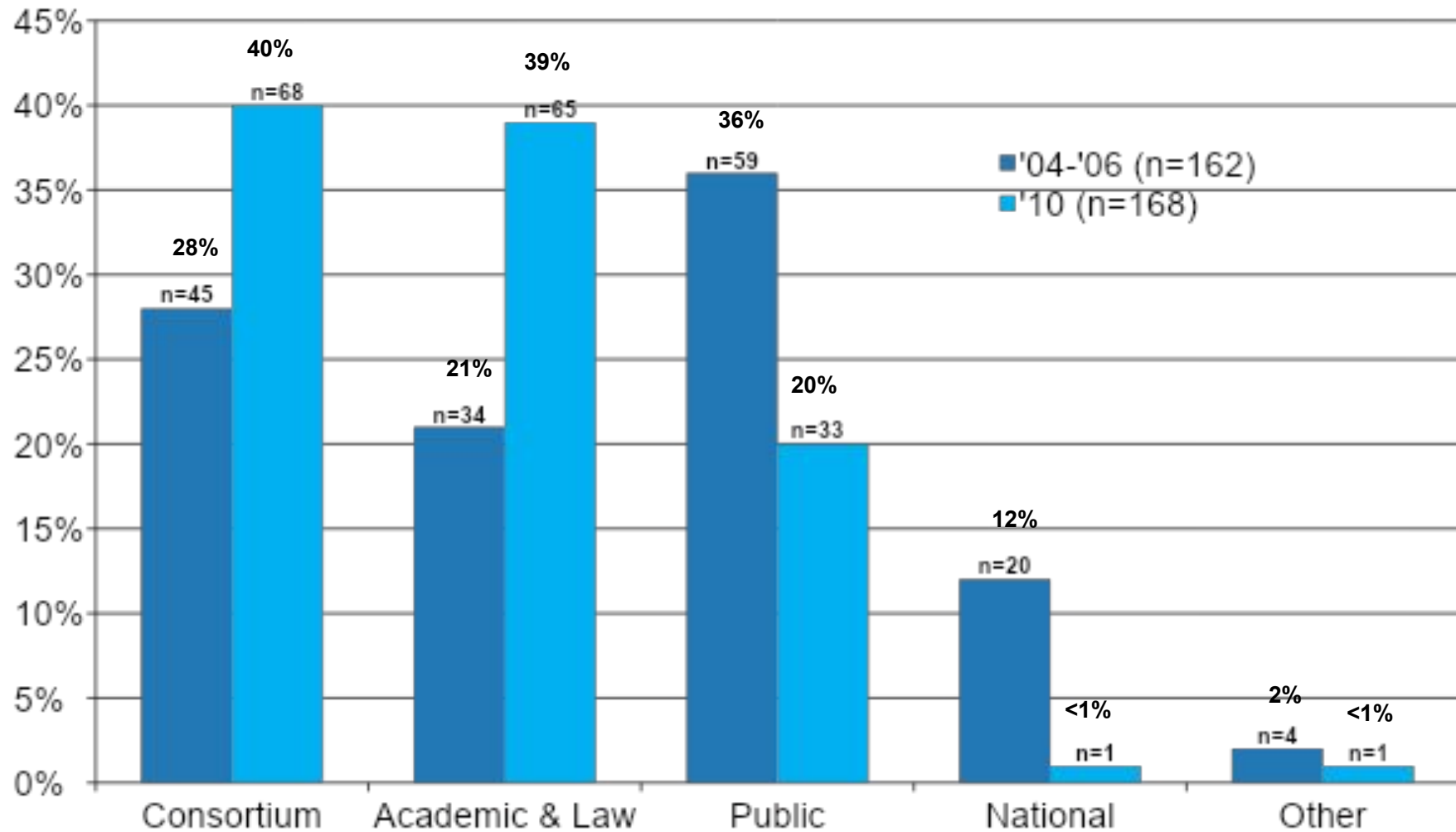
Ready Reference Questions (QP2 vs. QW) Received by Type of Chat Service
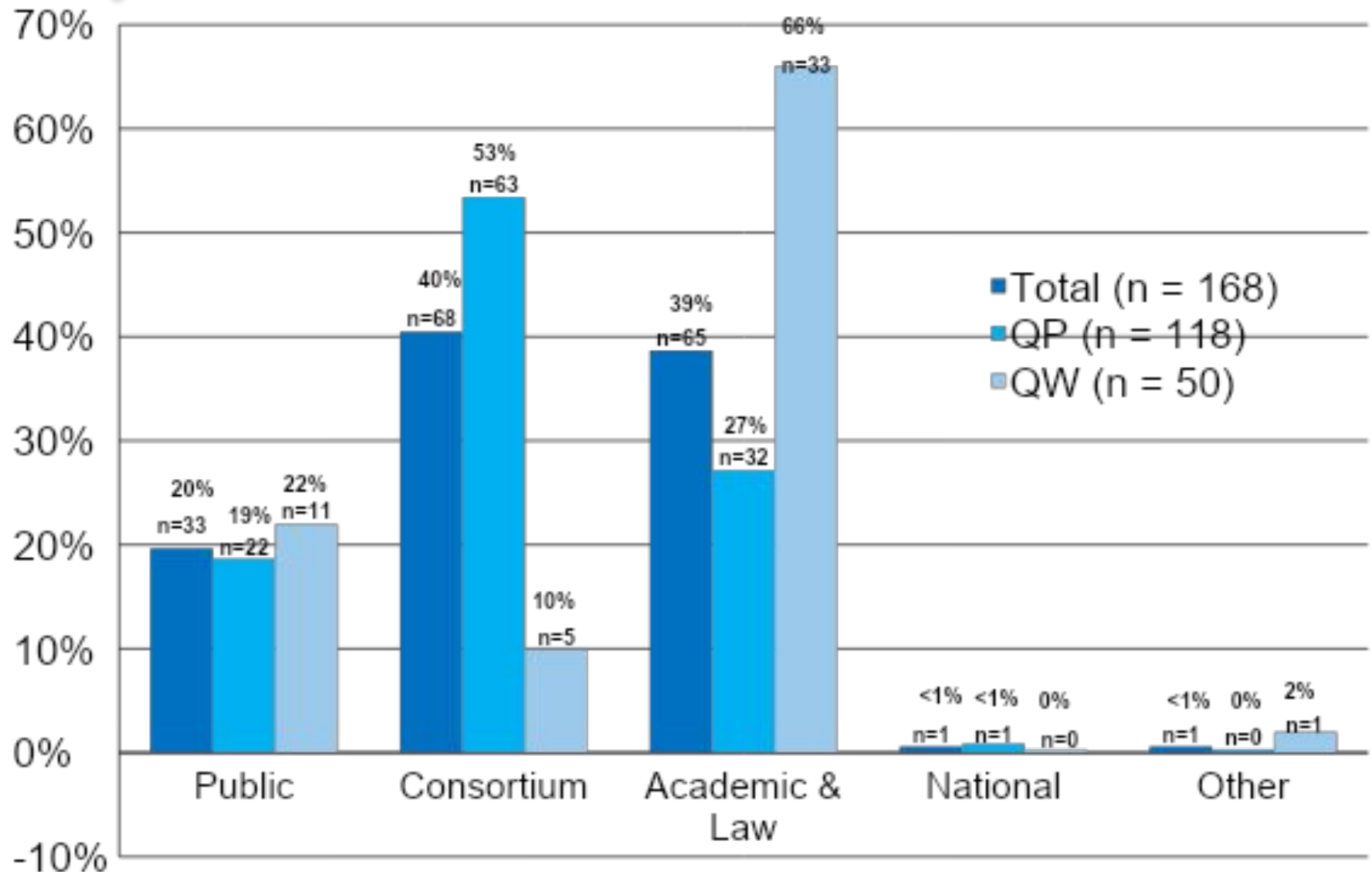
Accuracy in VR Ready Reference
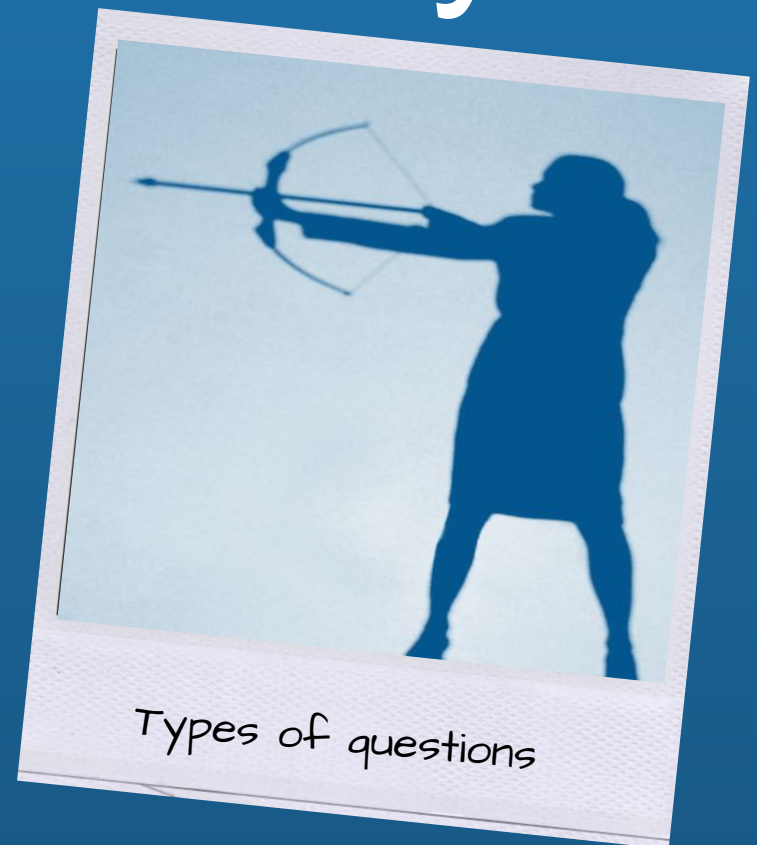
- **How accurate are VR librarians/staff in answering ready reference questions?**

- **Do we see the 55% rule in effect?**

(Hernon & McClure, 1987)

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Ready Reference Accuracy: 2004-2006 vs. 2010

Bar chart legend:
- '04 - '06 (n=180)
- '10 (n = 168)

Correct: 78% n=141 ('04-'06), 90% n=151 ('10)
Incorrect: 20% n=36 ('04-'06), 4% n=7 ('10)
Other: 2% n=3 ('04-'06), 6% n=10 ('10)
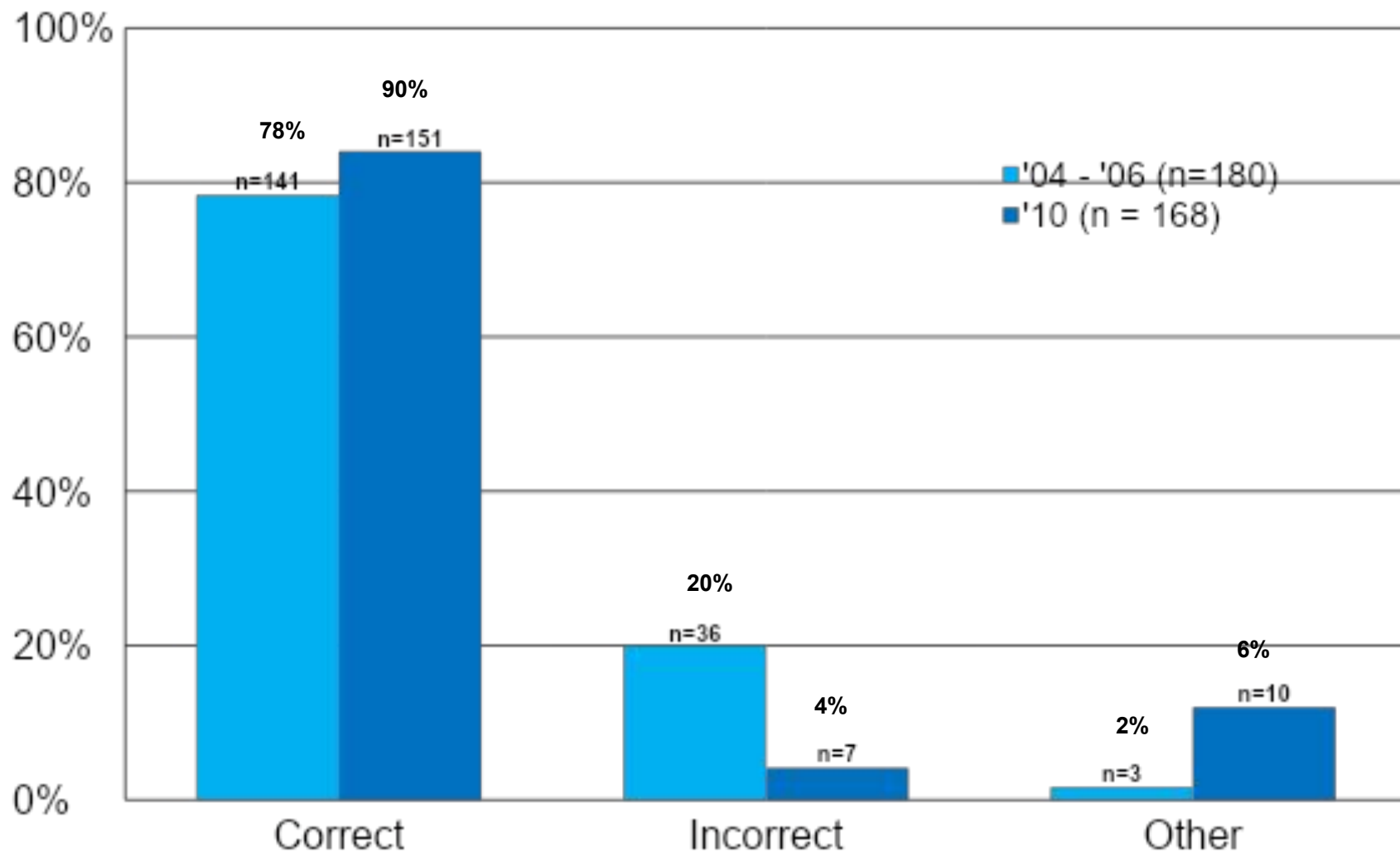
- For 2004 –2006, accuracy would rise from **78% to 90%** if VR librarians only…

  - Answered **specific question** asked!

- Seeking Synchronicity urged VRS librarians

  - **Before pushing** a general info page **make sure** it has **specific** & **exact** answer to user's question!

- 2010 sample included far fewer with this error: accuracy **90%** (perhaps b/c of recommendation?)

VRS Librarians

- **Critically evaluate sources**
- **Create metrics for evaluating new scholarly forms of authoring, publishing, & researching**
- **Assist new content creators**
- **Develop customized widgets**
- **Provide services in different formats**
  - **Be available to the users**
    - **Face-to-face**
    - **Online**
      - **Email**
      - **Text Messaging**
      - **IM**
    - **Mobile**
    - **Telephone**
    - **Social Media Services**

Seeking Synchronicity

What We Learned

VRS Lessons
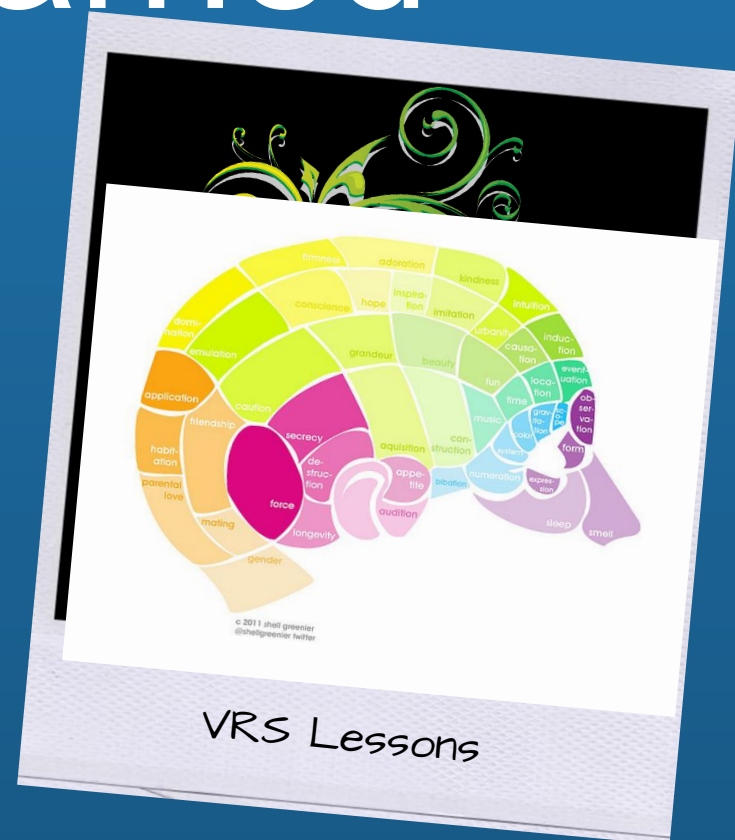
- **What we learned from non-users:**

  - **Preference for FtF service**

  - **Do not know service exists**

  - **Unknown or unfamiliar format**

- **Convenience dictates choices**

    - **Is it readily accessible online?**

    - **Does it contain the needed information & is it easy to use?**

    - **How much time will it take to access and use the source?**

    - **Is it a familiar interface and easily navigable interface?**

        - **Google and Wikipedia**

(Connaway, Dickey, & Radford, 2011)

Barriers to Convenience

- **Difficulty of library systems**

- **Print articles**

- **Limited hours, distance to library**

VR Users

Convenience Factors in Choosing VRS
Online Survey

Legend: All VRS Users (orange), Frequent Users (magenta)

Factor	All VRS Users	Frequent Users
Discouraged by Slow Connection	69%	64%
"Desperate Need" for Answers	72%	78%
Couldn't Get to the Library	73%	78%
Needed Help After Hours	74%	78%
The Library is Convenient	76%	81%
Desire Faster Software	77%	75%
Value "Immediate Answers"	89%	92%
Believe VRS is Convenient	95%	100%
Value VRS "Convenience"	97%	98%

VR Non-users

Possible Reasons Non-users Might Try VRS Online Survey

107 NON-USERS

■ Percent in Free Responses

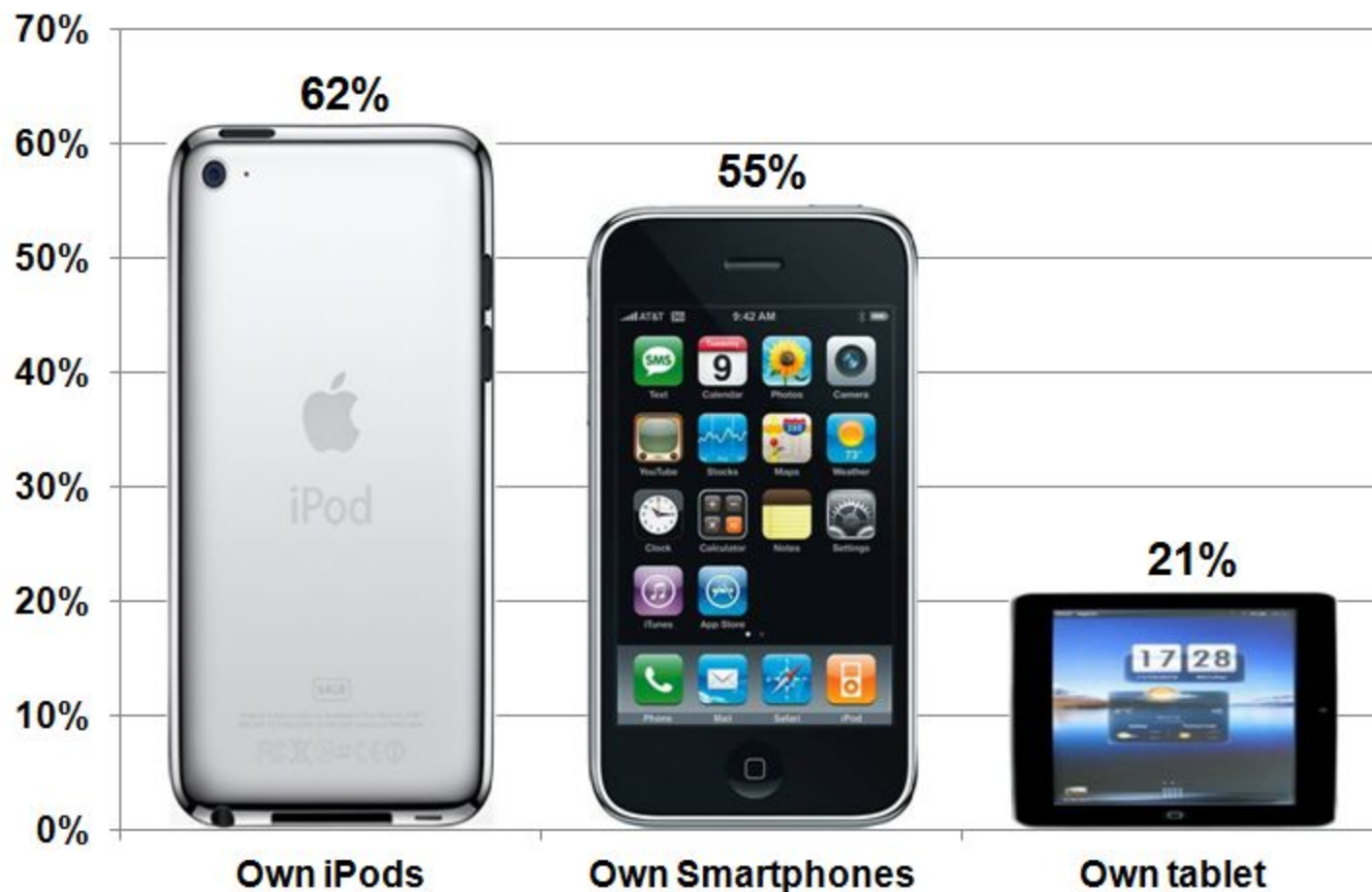| Reason	Percent
Experiencing Bad Weather	2%
VRS Faster than E-mail	4%
Using the Service from Home	4%
Using the Service After Hours	7%
Unable to Get to the Library	7%
Needing Immediate Answers	26%
Convenience	61%
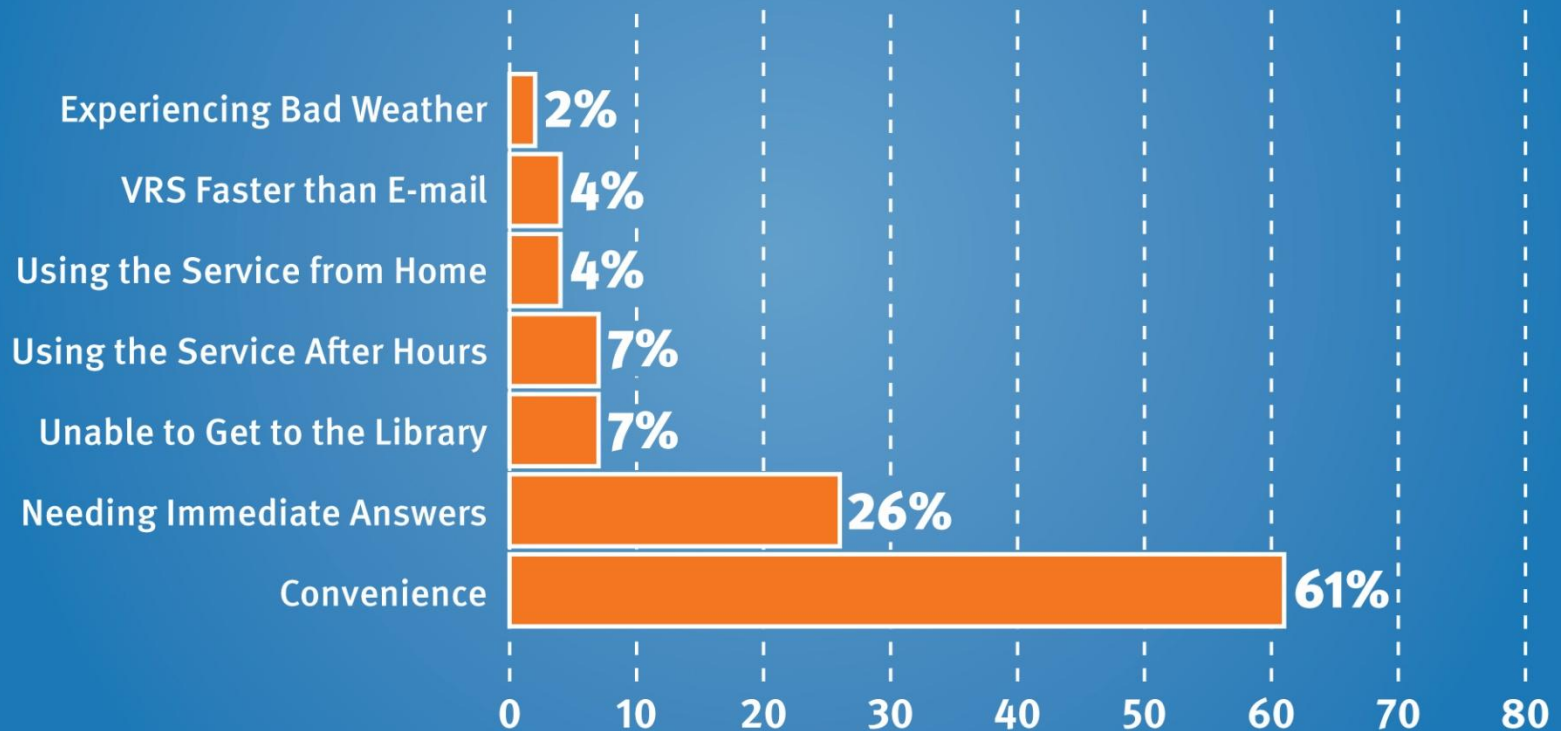
Recommendations to Boost Convenience

- **Deliver resources 24/7**

- **Integrate library tools in popular sites**

- **Provide links & reminders**

- **Make interfaces more like web browsers**

- **Accommodate different & personalized discovery & access preferences**

- **Offer multiple service modes**

- **Provide opportunities for collaboration**

- **Offer help at time of need**
  - **Chat/IM on library**
    - **Web site**
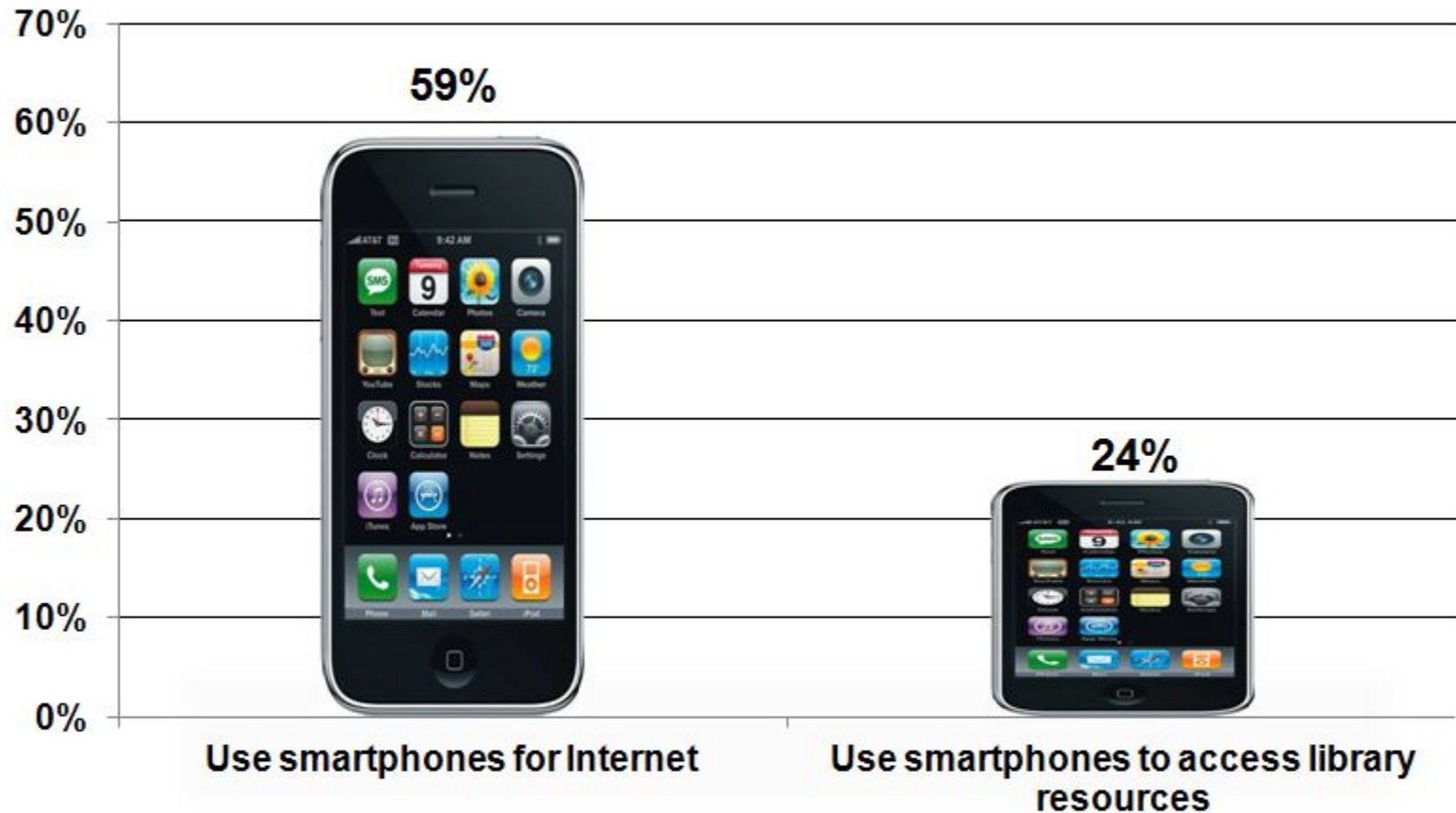   - **Online catalog**

What Mobile Technology Undergraduate Students Own

(Dahlstrom, de Boor, Grunwald, & Vockley, 2011)

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How Undergraduate Students Use Their Smartphones

70%

60%

59%

50%

40%

30%

20%

24%

10%

0%

Use smartphones for Internet

Use smartphones to access library resources

Connaway for OCLC Research, 2012

(Dahlstrom, de Boor, Grunwald, & Vockley, 2011)

What We Can Do

VRS Superpowers

"I've never used this type of service and never knew it was available—that's probably why I never tried it."

MILLENNIAL

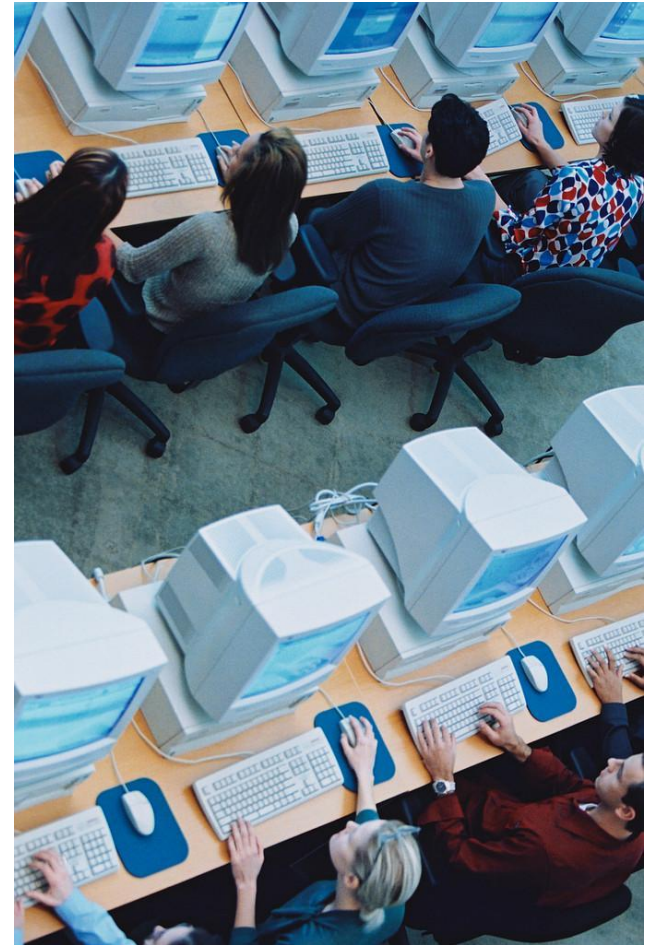# Market VRS

- **Market & publicize services**

  - **Don't know what is available**

    - **Text**

    - **Email**

    - **Chat**

    - **Phone**

    - **Face-to-face**

    - **Facebook**

    - **Skype**

(Radford & Connaway, 2010)

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- **Introduce & demonstrate online alternatives during in-person reference sessions, library use instruction classes & library programs**

Two Views of What's Effective in VR Experiences

Users:

- Convenience

- Comfort with service

- Accuracy

- Positive attitude

- Good communication skills

- Relationships with librarians

Librarians:

- Ability to leverage complex & specialized knowledge

- Positive attitudes, responses, & feedback

- VR tools & hybrid communication modes

- Relationships with users

Two Views of What's Not Effective in VR Experiences

Users:

- Abrupt, dismissive answers
- Grumpy, ill-informed or uninterested librarians
- Poor wrap-up
- Limiting time of session
- Being sent to Google
- Failing or refusing to provide info

Librarians:

- Convoluted & confusing questions
- Rude, impatient &/or disappearing users
- Unrealistic expectations
- Unreceptive to suggestions

- **Ask open questions**

- **Portray positive attitude**

- **Provide specific & accurate answers**

- **Clarify questions**

- **Take your time**

- **Pay attention to "close"**

- **Always be pleasant & polite**

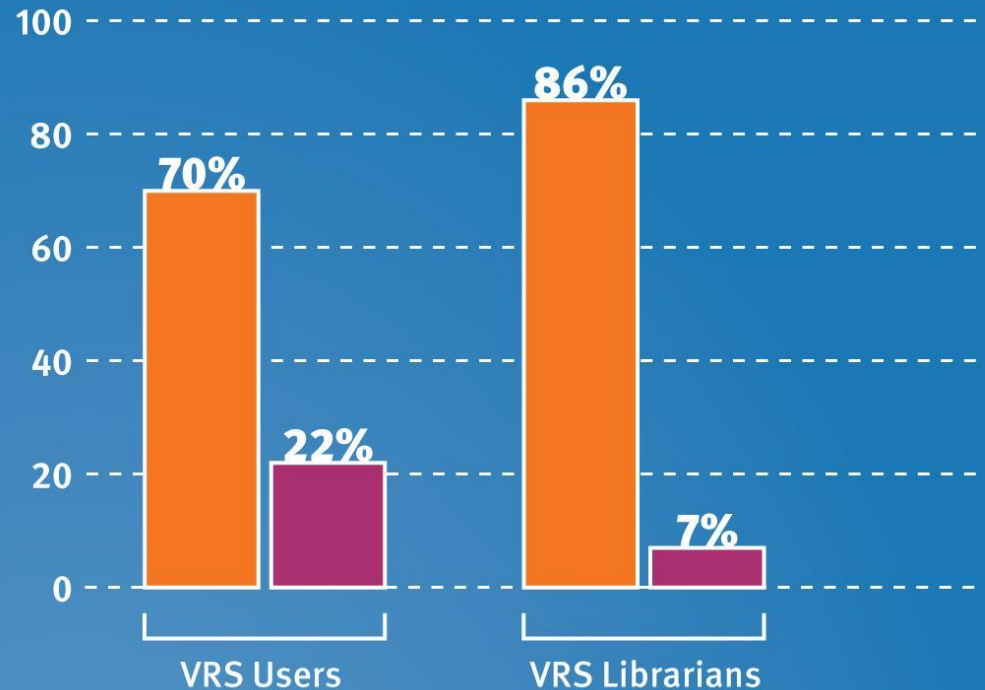# Mode for Developing Best Relationship:
VR Users & Librarians

"I Can Develop the Best Relationship with a Librarian/User In"
Online Survey
137 VRS USERS
175 VRS LIBRARIANS

- FtF
- Chat
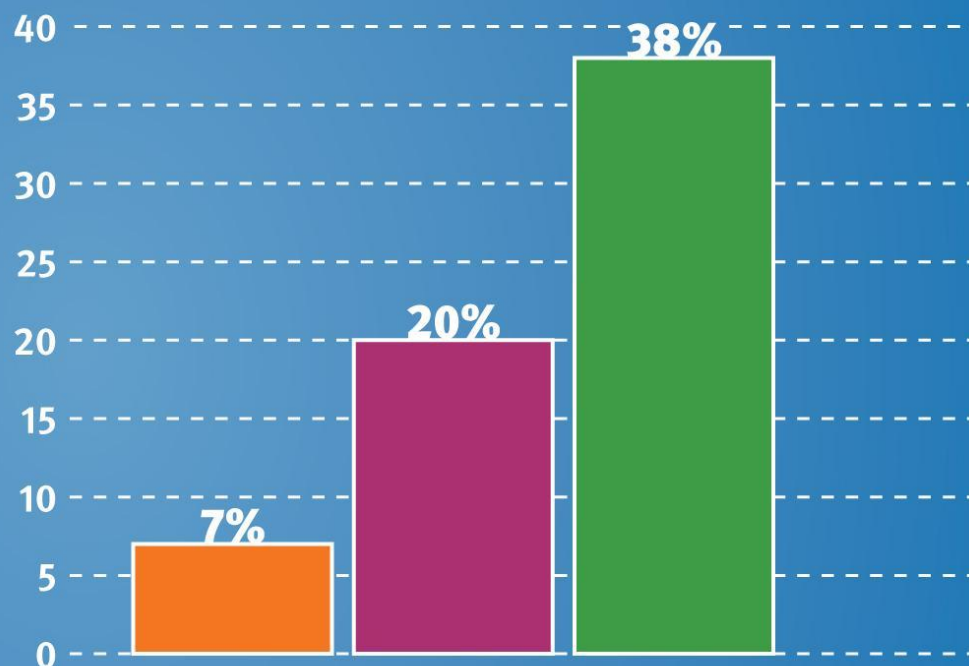
Making Personal Connections:
VR Librarians

Opportunity to Make Personal
Connections with Users in Live Chat
Online Survey

175 VRS LIBRARIANS

- Excellent 13 = 7%
- Very Good 35 = 20%
- Good 67 = 38%
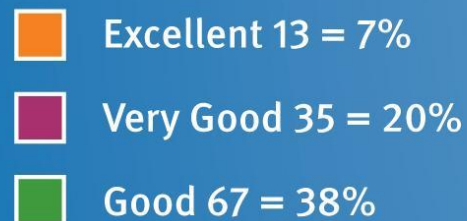
- **Found to boost accuracy**

- **Use variety of clarifying questions**

- **Expect clarifying questions from users**

- **Use follow-up questions to verify needs are met**

- **It's all about the relationships**

- **Death of ready reference exaggerated**

- **To boost accuracy**

  - **Clarify question**

  - **Answer specific question**

- **Convenience is the hook**

- **Marketing matters**

Connaway for OCLC Research, 2012

Cyber Synergy: Seeking Sustainability through Collaboration between Virtual Reference and Social Q&A Sites

- **New grant - amount of $250,000 for '11-'13**

- **Funded by IMLS, OCLC, & Rutgers University**

- **Co-PIs Marie Radford (RU), Lynn Silipigni Connaway (OCLC), & Chirag Shah (RU)**

http://www.oclc.org/research/activities/synergy.html

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Questions & Discussion

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