comPADRE

Communities for Physics and Astronomy Digital Resources Education

Presented by

Allison Gregg

Then…

Kibrom Tewolde

What is comPADRE?

- A web-based network of Physics and Astronomy resource collections
- Provides web links for teacher and student resources

comPADRE Collections

- **The Physical Sciences Resource Center (PSRC)**
- **The Nucleus**
- **Quantum Exchange**
- **Physics-to-Go**
- **Astronomy Center (coming soon!)**
- **The Physics Front (coming soon!)**

The Nucleus - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://www.compadre.org/student/

Links comPADRE PSRC Nucleus Quantum Phys To Go Astro Cent Phys Front Hotmail Google

home | manage my account | terms | about the Nucleus | FAQ

the nucleus

resources for physics and astronomy undergraduates

Logout

Discussion Forums

Textbook Reviews

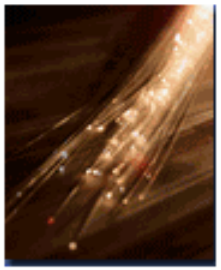
Browse by Subject

Search

Suggest Resource

Summer Research

Filing Cabinet



Access Granted.

User: Alysson [manage account]

Time: 4:34PM EST

Account Status: Active

Featured Resources

NASA's Plantetary Photojournal
This site contains NASA photographs from missions to all of the planets, including the latest photos from the Cassini mission.

Relativity on the World Wide Web
This site has links to relativity descriptions at a conceptual level. There are also links to more mathematical descriptions.

sps chapter of the month

University of Louisville

Editor's Choice

A web site that honors those people who improve the gene pool by removing themselves from it.

So, what do you think of the new site design?

- Best. Site. Ever.
- What happened to Ol' Blue?
- Ow!! My retinas!!
- It makes me want to dance around my room, singing and clapping

Internet

Start | Novell GroupWise ... | [7] 00:43 - CD Pla... | Microsoft PowerP... | The Nucleus - M... | 4:28 PM

Our Projects

Allison Gregg

Overall comPADRE Analysis

Kibrom Tewolde

Nucleus Jobsite Analysis

ComPADRE Analysis

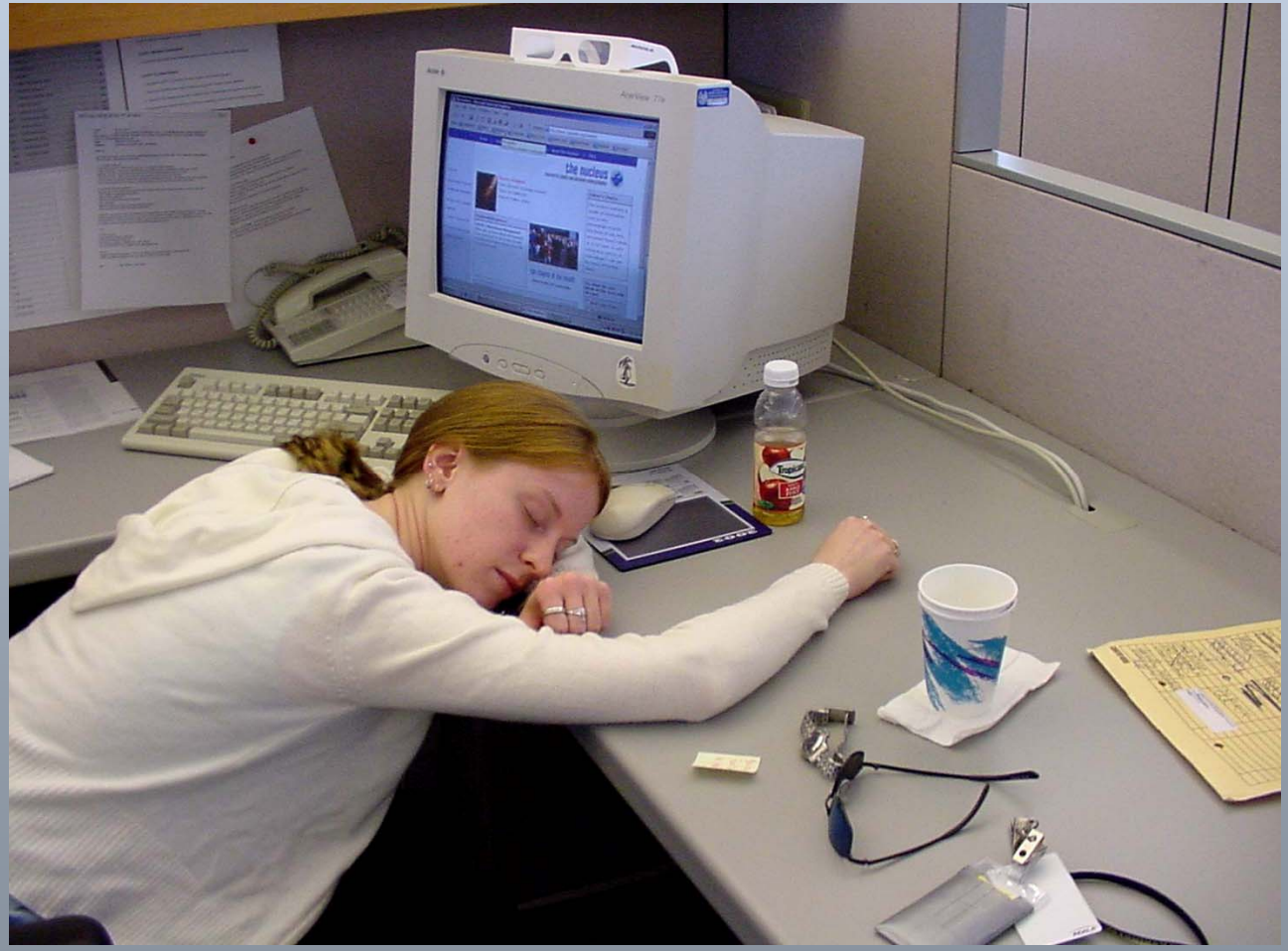
2004 Summer Internship

Presented by: Allison Gregg

Who am I?

- Recent Graduate of the University of Louisville
- Bachelors of Science Degree in Physics with a Concentration in Astronomy/Astrophysics
- Minor in Mathematics
- SPS National Member
- Sigma Pi Sigma Member

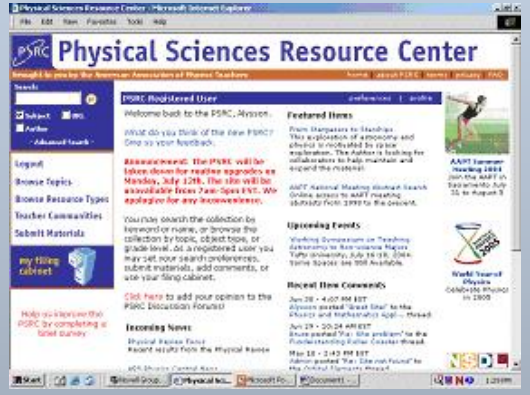
What Have I Been Doing All Summer??

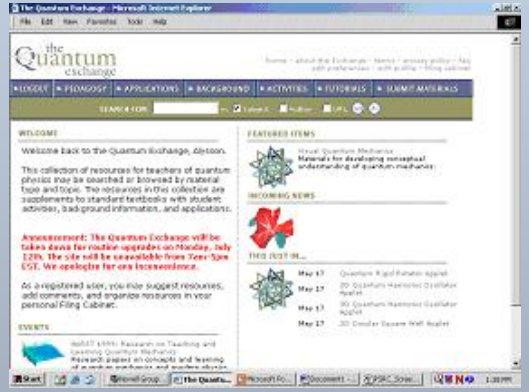


No, Really, What Have I Done All Summer?

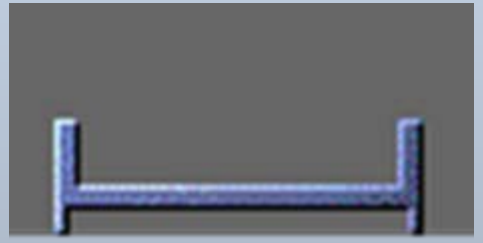
- Analyzed the ComPADRE resources database for excess and shortage
- Compared ComPADRE with other on-line resource catalogs
- Took a look at our own database metadata and checked for consistency
- Annoyed Thad with dumb questions

What is comPADRE?





Sounds Great!
What's the Problem?



- Users of the collections submit new material
- Resources are tagged, approved by the editors, and added to the database

Who knows what resources are actually in the database?!

This is Where I Step In

I looked at ALL the combinations of:

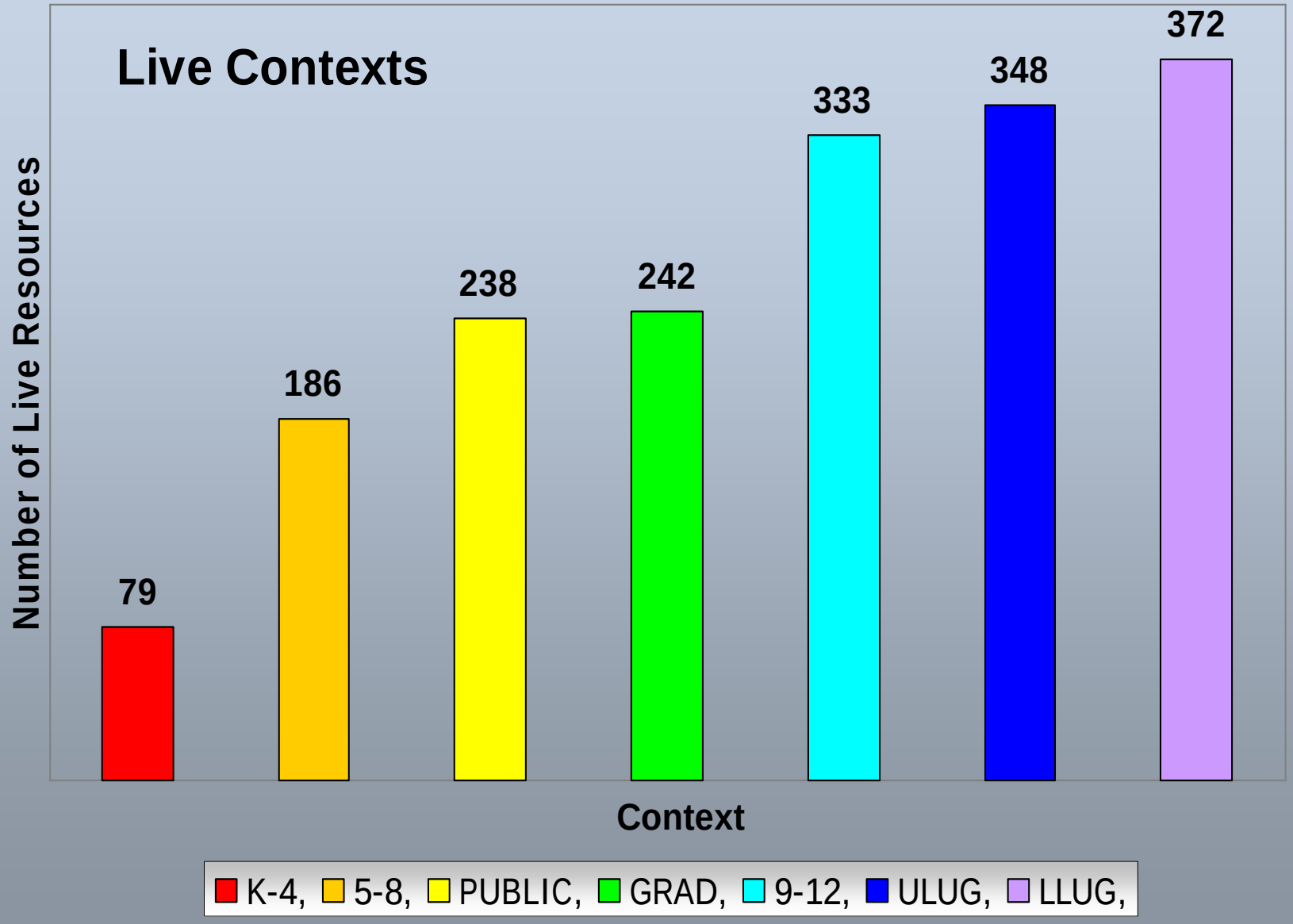
31 Resource Types

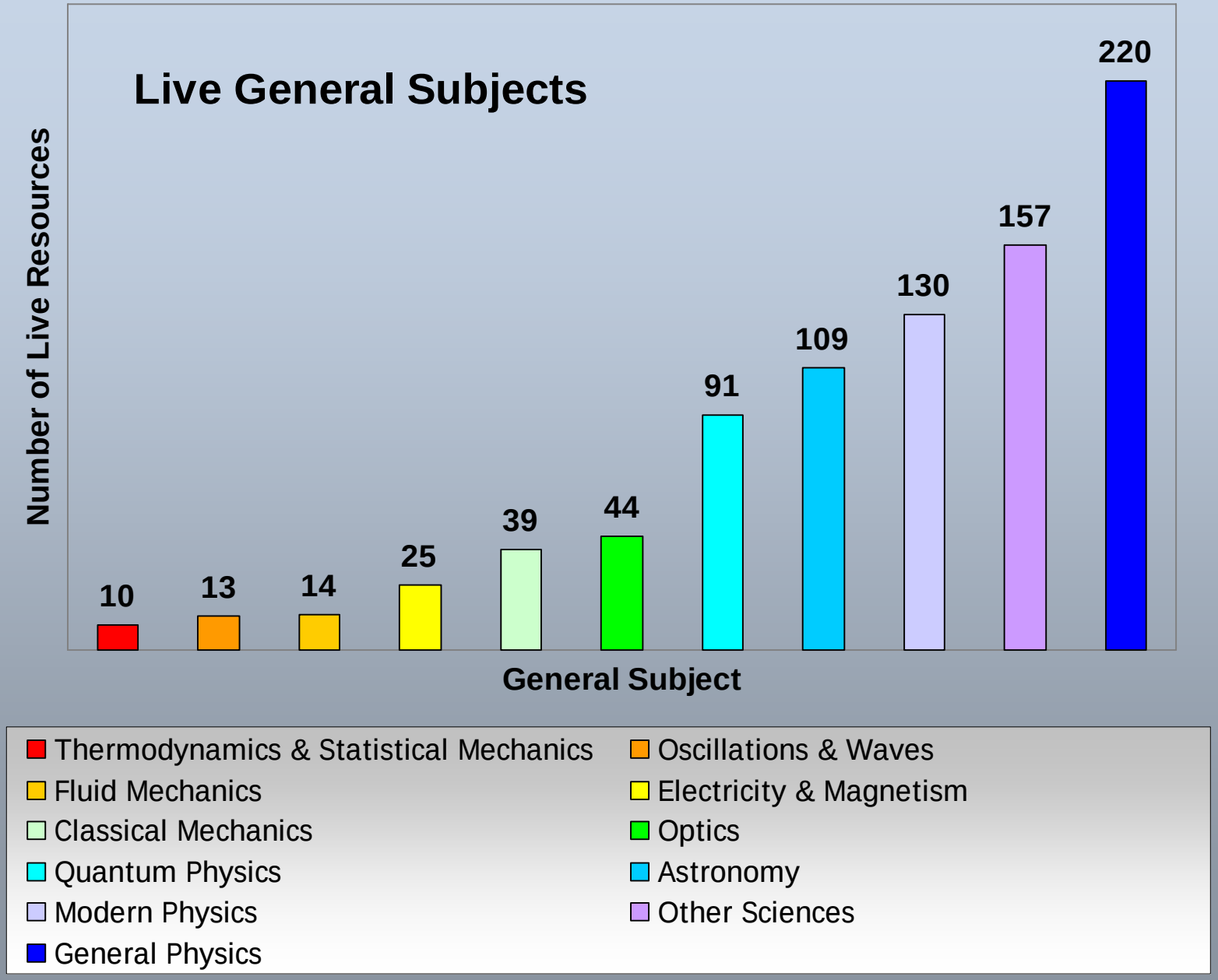
11 Subjects

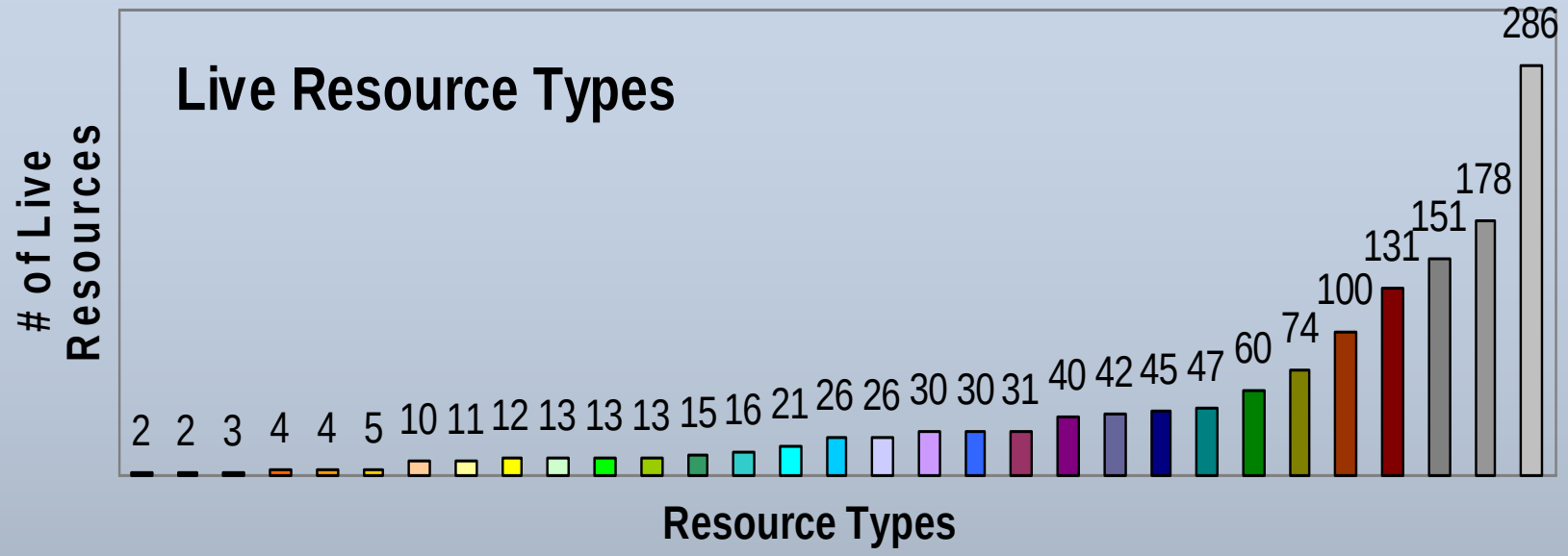
7 Contexts

To find imbalances in the database.

Then comes the Excel…


Live Contexts
Number of Live Resources
79
186
238
242
333
348
372
Context
K-4,
5-8,
PUBLIC,
GRAD,
9-12,
ULUG,
LLUG,


Live General Subjects
Number of Live Resources
General Subject
10
13
14
25
39
44
91
109
130
157
220
Thermodynamics & Statistical Mechanics
Oscillations & Waves
Fluid Mechanics
Electricity & Magnetism
Classical Mechanics
Optics
Quantum Physics
Astronomy
Modern Physics
Other Sciences
General Physics



Questionnaire, Figure, Table,
Project, Graph, Serial,
Best practice, Unit of instruction, Course,
Drill and Practice, Lecture/Presentation, Study guide,
Quiz/Test, Lesson plan, Textbook,
Data set, Community, Curriculum,
Laboratory, Event, Animation,
Research study, Image set, Educator's guide,
Service, Tutorial, Simulation,
Curriculum support, Activity, Collection,
Reference,

Key Findings

- Excess of resources
  - K-4 (Context)
  - General Physics (Subject)
  - Reference (Resource Type)
- Minimal resources
  - Thermodynamics & Statistical Mechanics (Subject)
  - Oscillations & Waves (Subject)
  - Fluid Mechanics (Subject)
  - Figure, Table, Graph, etc (Resource Type)
  - Lower Level Undergraduate (Context)

So What Do We Do About This?

- Check other catalogs like ComPADRE and see how we compare
  - Do we have a comparable amount of resources?
  - Is our website traffic comparable?
  - Do other collections have user accounts?
  - Is our website organized similarly?
- Look at our metadata and check for inconsistencies.
- Search through specific needs and submit new resources to the database

Survey Says...

- Sent an email survey to 4 collections
  - Physics Web
  - Science Gems
  - Physics Zone
  - Education Development Program (EDP)

A Brief Comparison

	PSRC	Physics Zone
Years in Operation	7	9
Visits/day	Few Hundred- Few Thousand*	Few Hundred
User Accounts	Yes – Free	Yes – Pay
# of Resources	455**	Few Hundred
Organization		
Subject	Yes	Yes
Grade Level	Yes	No
Resource Type	Yes	No

* Depends on the time of year
**As of July 21, 2004

Physical Sciences Resource Center - Microsoft Internet Explorer

File » Links comPADRE The Nucleus PSRC Hotmail » Address http://www.compadre.org/psrc/it

Physical Sciences Resource Center

brought to you by the American Association of Physics Teachers

home | about PSRC | terms | privacy | FAQ

Search:

go

Subject URL

Author

- Advanced Search -

Logout

Browse Topics

Browse Resource Types

Teacher Communities

Submit Materials

my filing cabinet

Help us improve the PSRC by completing a brief survey

Details for National Science Foundation

Location:	<http://www.nsf.gov/start.htm>
Publisher:	National Science Foundation
Description:	The mission of the National Science Foundation is to promote the progress of science; to advance the national health, prosperity, and welfare; and to secure the national defense. The NSF supports research and education in science and engineering through funding of a wide range of grants and contracts.
Subject:	Other Sciences | None
Intended Levels:	Graduate School Lower Level Undergraduate General Public Upper Level Undergraduate
Intended Users:	Researcher Learner Teacher
Resource Types:	Service Reference

File Comment

Additional Details

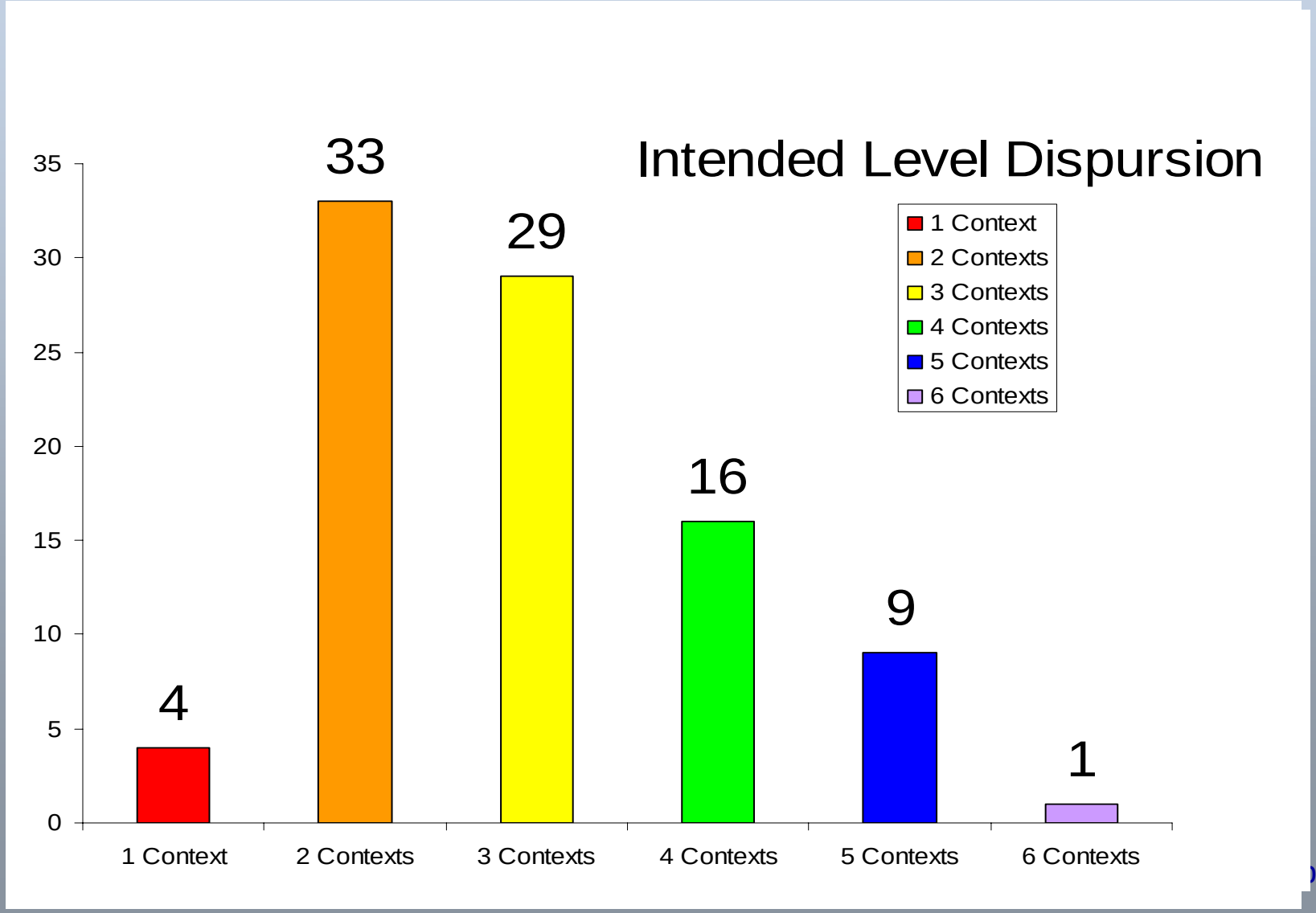
Cost:	Does not have an associated cost.
Restriction:	Has a copyright or other restriction

Start Novell ... comPA... Micros... Physic... Docum... untitle... 10:59 AM

Metadata!

- First off, what is metadata?
- Why do we need to look at our own metadata?
  - Tagging too loosely?
    - Including subjects, contexts, or resource types that aren't sufficiently represented in the resource to warrant such tagging
  - Not tagging enough?
    - Not including all the subjects, contexts, or resource types that *are* in the resource

So What Do We See?



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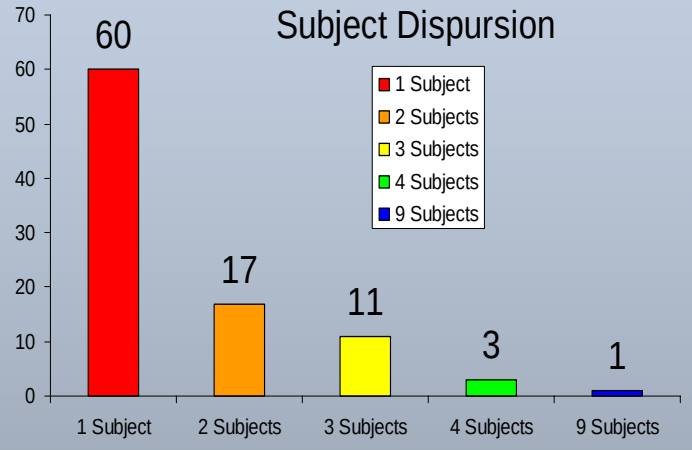

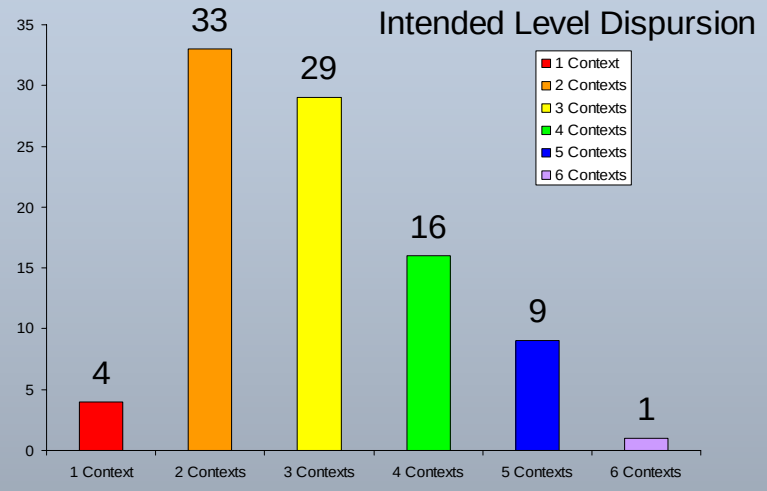

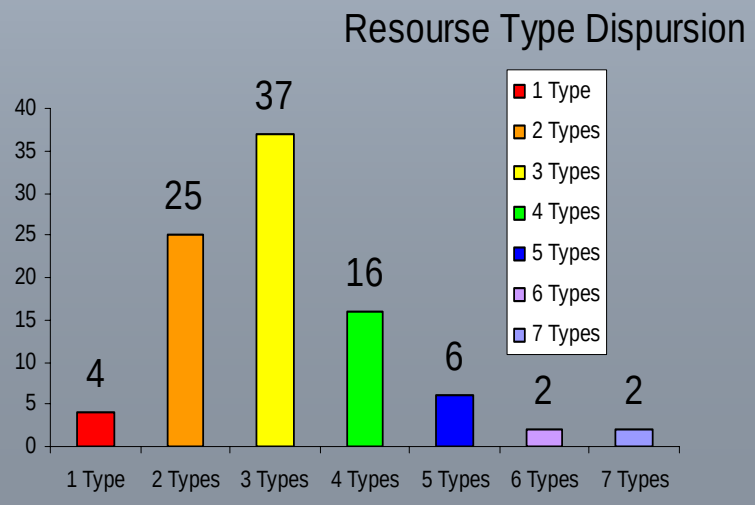

So What Now?

Write it all down!

I wrote an analysis/proposal describing my findings and recommendations for improvement

Odds and Ends

- Created thumbnails pictures for the Textbook page
- Researched t-shirt and polo shirt prices for the AAPT Meeting in Sacramento
- Participated in beta-testing for the Nucleus site before it rolled out with its new look and enhanced features
- Assisted in coming up with new ideas for the Nucleus and its Student Lounge

So What did I Contribute to comPADRE?

- I sifted through the vast amount of resources in the comPADRE database, checking for balance
- I checked to see how comPADRE compared to other collections
- I checked for consistency in the metadata
- I wrote an analysis paper to be used for site improvement and grant proposal purposes

How Did the Internship Benefit Me?

- I became familiar with a “real world” job atmosphere
  - Grocery store Front-End Manager just didn’t do the job
- I became better acquainted with how websites are created, run, and administered
  - comPADRE isn’t just your basic HTML
- I learned how to write a thorough analysis of data in a professional way
  - Potential big bucks on the line!
- I gained “big city” experience
  - Bless you, Metro!

Coming Attractions!

- American Association of Physics Teachers National Meeting
  - Sacramento, CA
  - July 31-Aug 4
  - I'll be participating in the SPS Poster Session
    - Discussing comPADRE and my summer experience