

Researching the Process and Outcomes of Electronic Portfolio Development in a Teacher Education Program

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Literature

- There is currently an ambiguity in the literature about the benefits of developing electronic portfolios over the traditional use of paper-based portfolios
- May be due to:
 - Lack of widespread training and implementation of e-portfolios in Teacher Education programs
 - Lack of a conceptual framework, resulting in limited empirical research on electronic portfolios.



UAA's Context

- 2000-2001 First cohort of a brand new, restructured Professional Development School, Post-Baccalaureate one-year model
- Benefits of two PT3 grants
 - 1999 Capacity-Building Grant
 - 2000 Implementation Grant
- 1999 Title III Partnership Grant

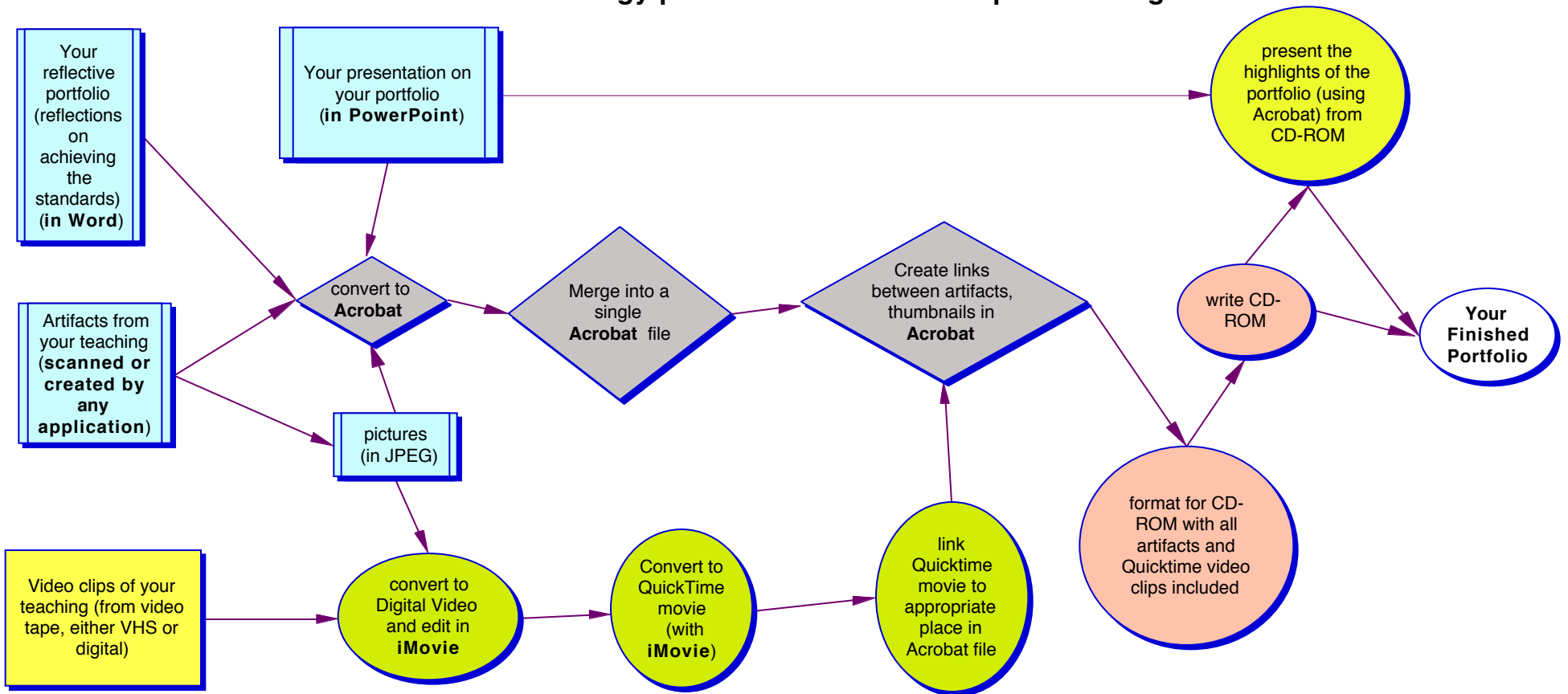


Timeline

- July, 2000 - Interns begin program, technology assessment
- August 2000 - Interns introduced to Portfolio requirement, given use of laptop, workshop on how to keep track of artifacts
- November, 2000 - 2-hour workshop for all interns on using Word to create mid-point portfolio
- December, 2000 - Mid-point portfolio work session with some (not all) interns
- May, 2001 - Capstone course began
- June, 2001 - Portfolio Presentations



There is a quick overview of how we are putting the technology pieces of the electronic portfolio together.



Survey

- After the presentations were over, interns were asked to complete a survey





Electronic Portfolio Survey

Dr. Helen Barrett

University of Alaska Anchorage

June 2001 and June 2002

Research Questions

- ◆ 1. Does creating an electronic portfolio enhance a teacher candidate's self-esteem?
- ◆ 2. Does creating an electronic portfolio enhance a teacher candidate's multimedia development skills?
- ◆ 3. Do teacher candidates understand the multiple purposes that can be met from creating an electronic portfolio?
- ◆ 4. Do teacher candidates need a support system to develop their electronic portfolios, and are certain types of support more useful than others?

More Research Questions

- ◆ 5. Will multimedia skills gained from the process of developing electronic portfolios transfer to student use in the classroom?
- ◆ 6. Is there a positive relationship between the time spent developing the electronic portfolio, and the teacher candidate's attitude toward their portfolio and whether they will use it in the future?
- ◆ 7. After having full time access to a laptop computer, will teacher candidates want to purchase one when they get a teaching job (for our partner!)?



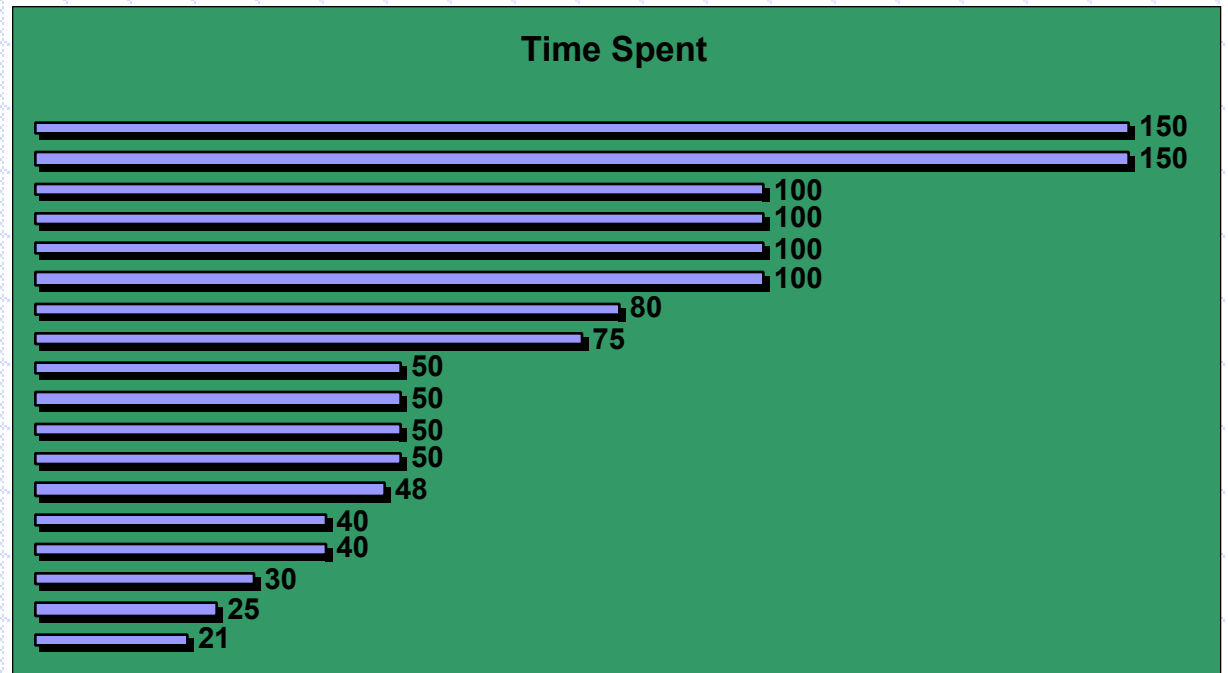
Survey

6 open-ended questions

4 multi-part, multiple choice

1. Estimate how many hours you spent working on your electronic portfolio: _____ hrs (2001 cohort)

- ◆ Average:
70 hours
- ◆ Minimum:
21 hours
- ◆ Maximum:
150 hours
- ◆ St. Dev.
39.4



2. Now that you are finished, how do you currently feel about your electronic portfolio or the process of developing it?

- ◆ Generally positive
- ◆ Stressful with time crunch at end
- ◆ Many wanted to work on it more
- ◆ Many liked working with iMovie

3. What do you think is the primary purpose for the electronic portfolio that you created?

- ◆ Reflection on year (more than 50%)
- ◆ Assessment of standards
- ◆ Learning
- ◆ Setting goals
- ◆ Job Search

4. In the future, how do you think you will use or adapt the electronic portfolio that you created?

- ◆ More than half were not sure they would use their portfolio in the future
- ◆ Several mentioned how much they liked iMovie and the video
- ◆ Several mentioned use for employment

5. How could we at UAA have improved the electronic portfolio development process?

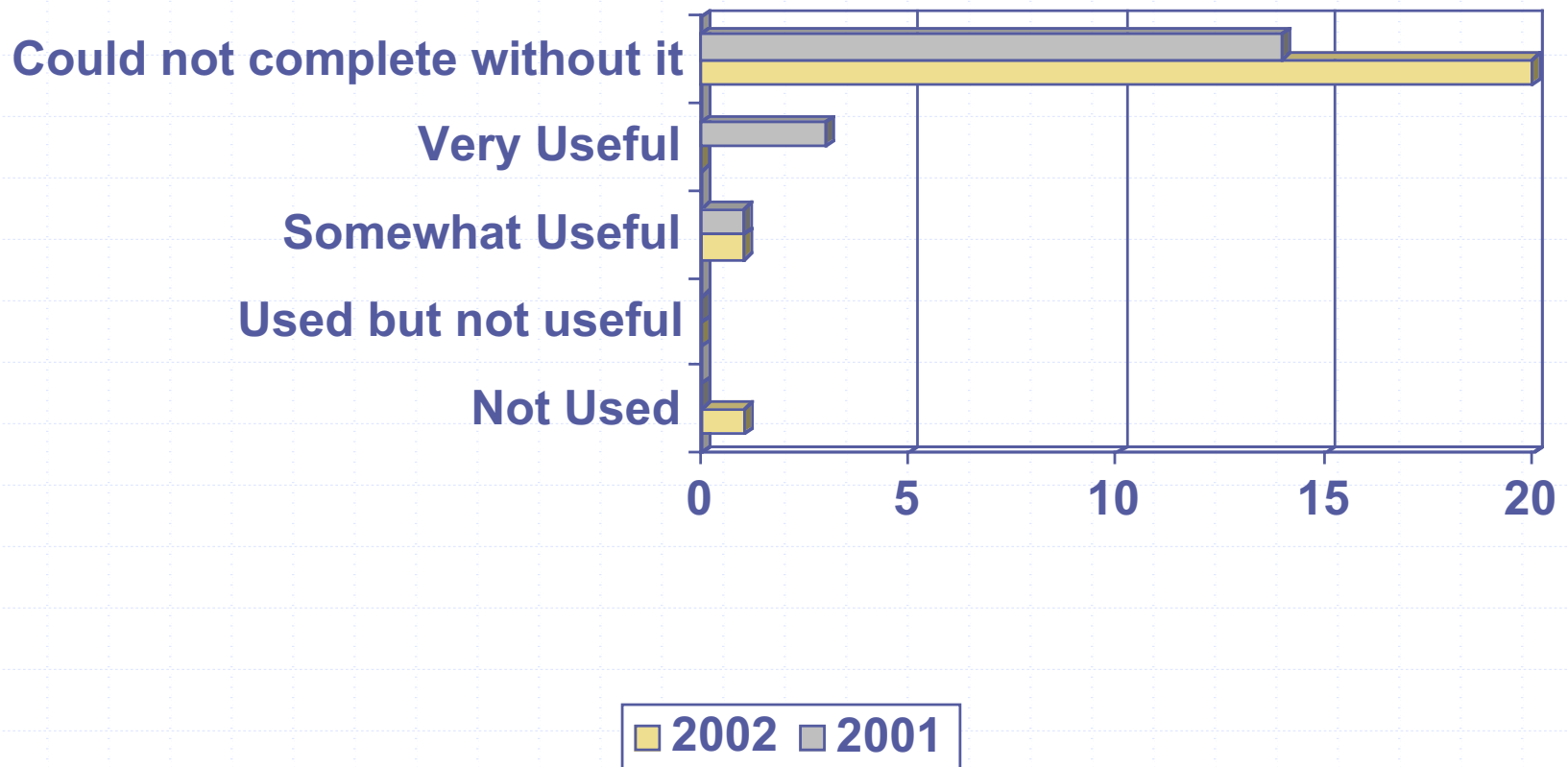
- ◆ More scaffolding throughout the year
- ◆ More support in regular course work
- ◆ Start earlier
- ◆ More time
- ◆ More help
- ◆ Make it an ongoing process

6. Do you have suggestions for times during the last year when UAA could have provided more training or support, to keep from leaving so much work for the end of the year?

- ◆ More consistently over the year
- ◆ During seminars
- ◆ Several people suggested weekly sessions
- ◆ Teach iMovie at beginning of year

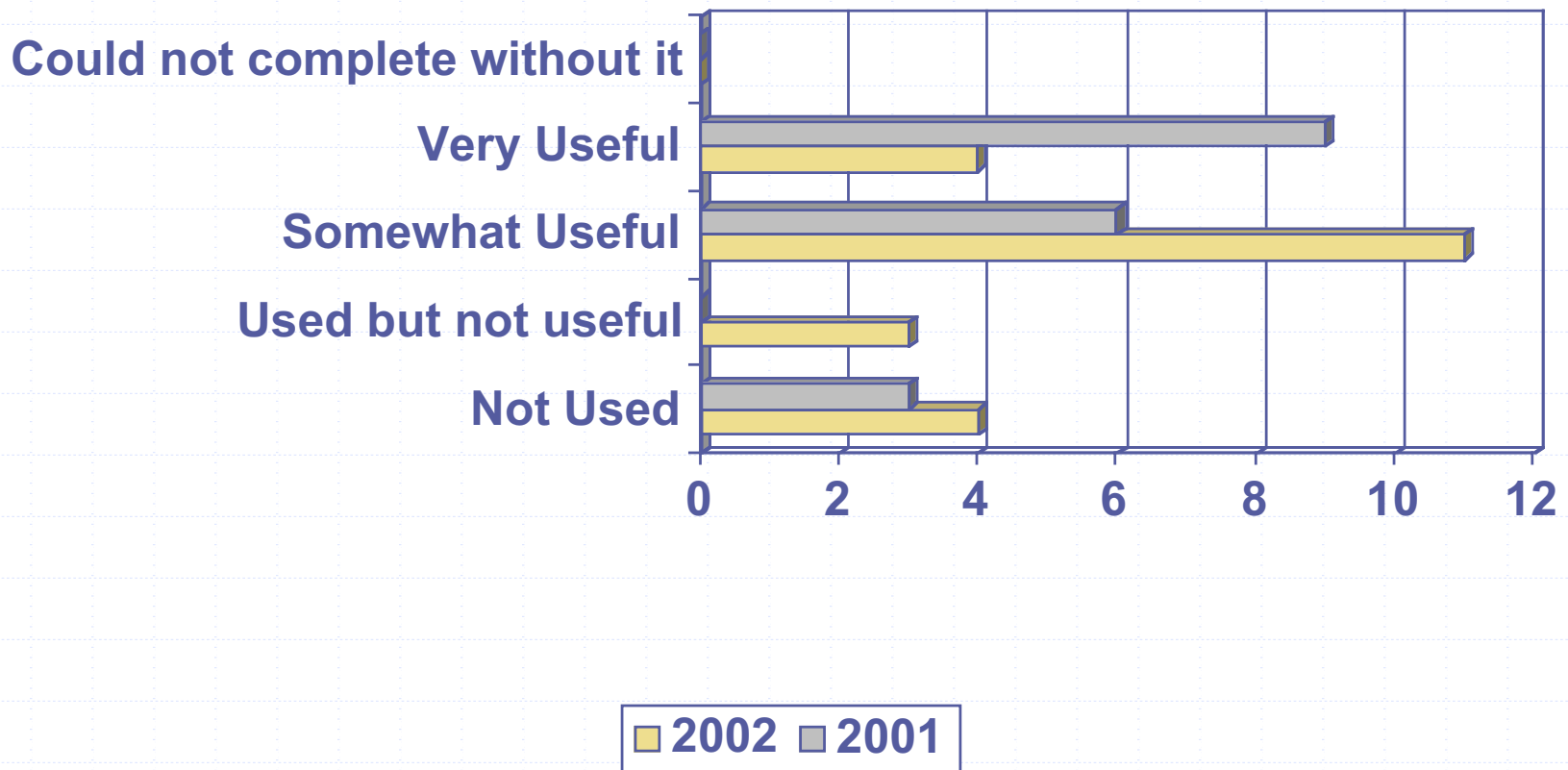
7. Which support resources were useful when creating your electronic portfolio?

a. Full time use of laptop computer



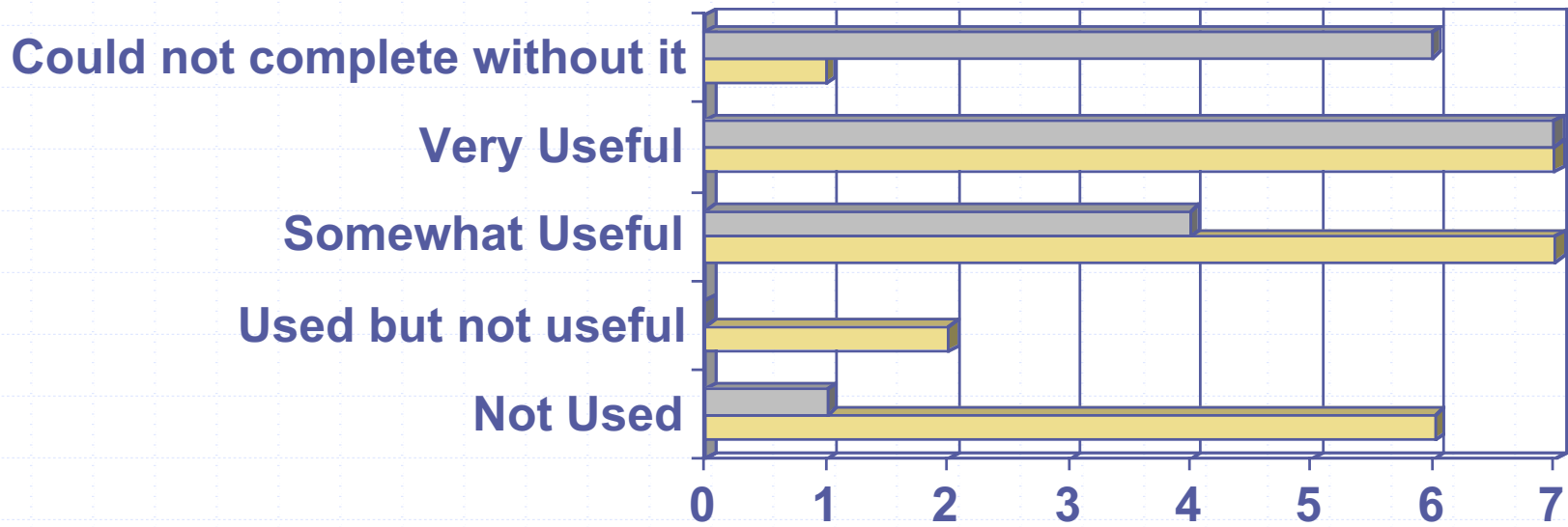
7. Which support resources were useful when creating your electronic portfolio?

b. Handouts provided by instructor



7. Which support resources were useful when creating your electronic portfolio?

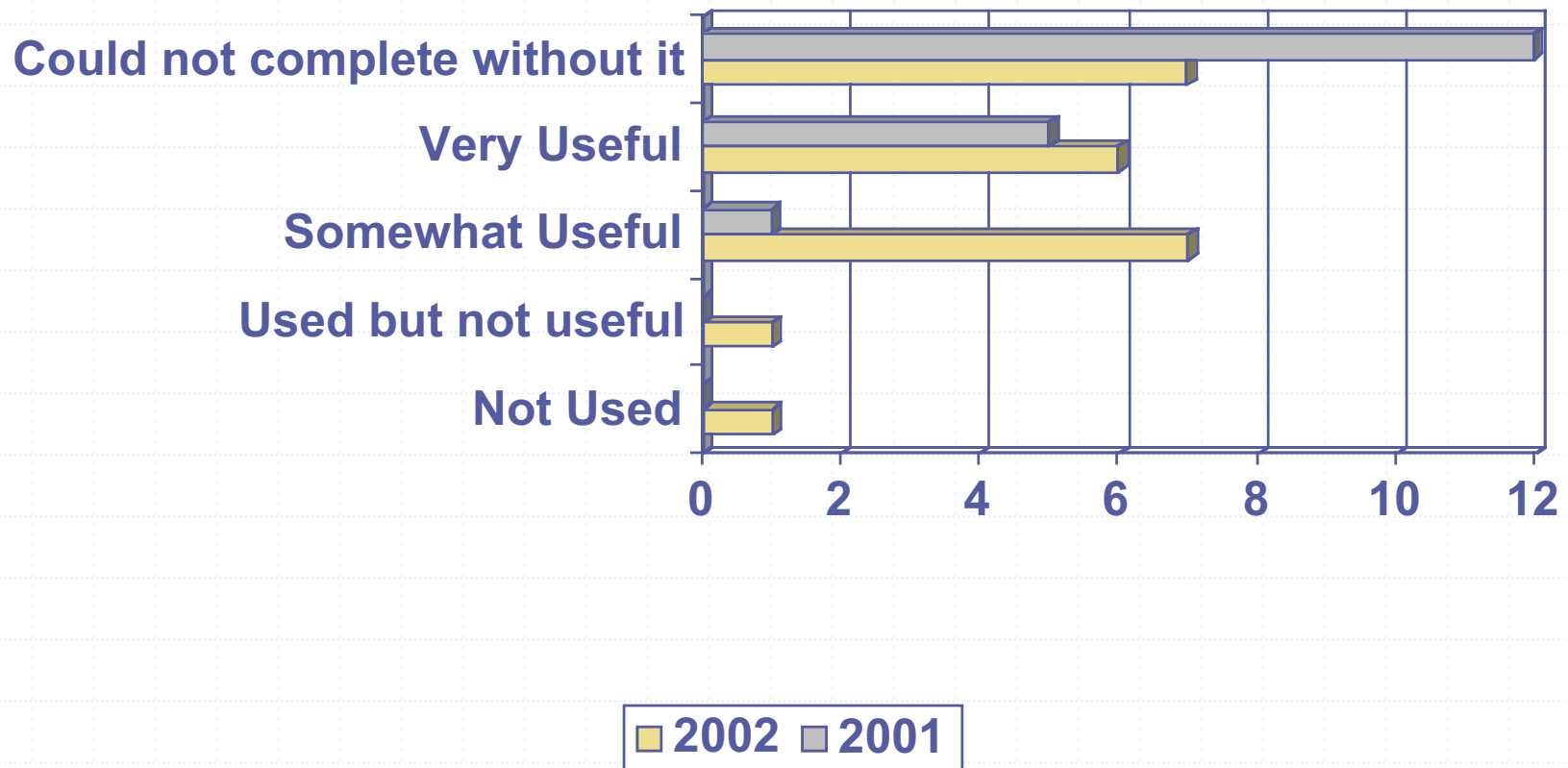
c. Templates provided by instructor



■ 2002 ■ 2001

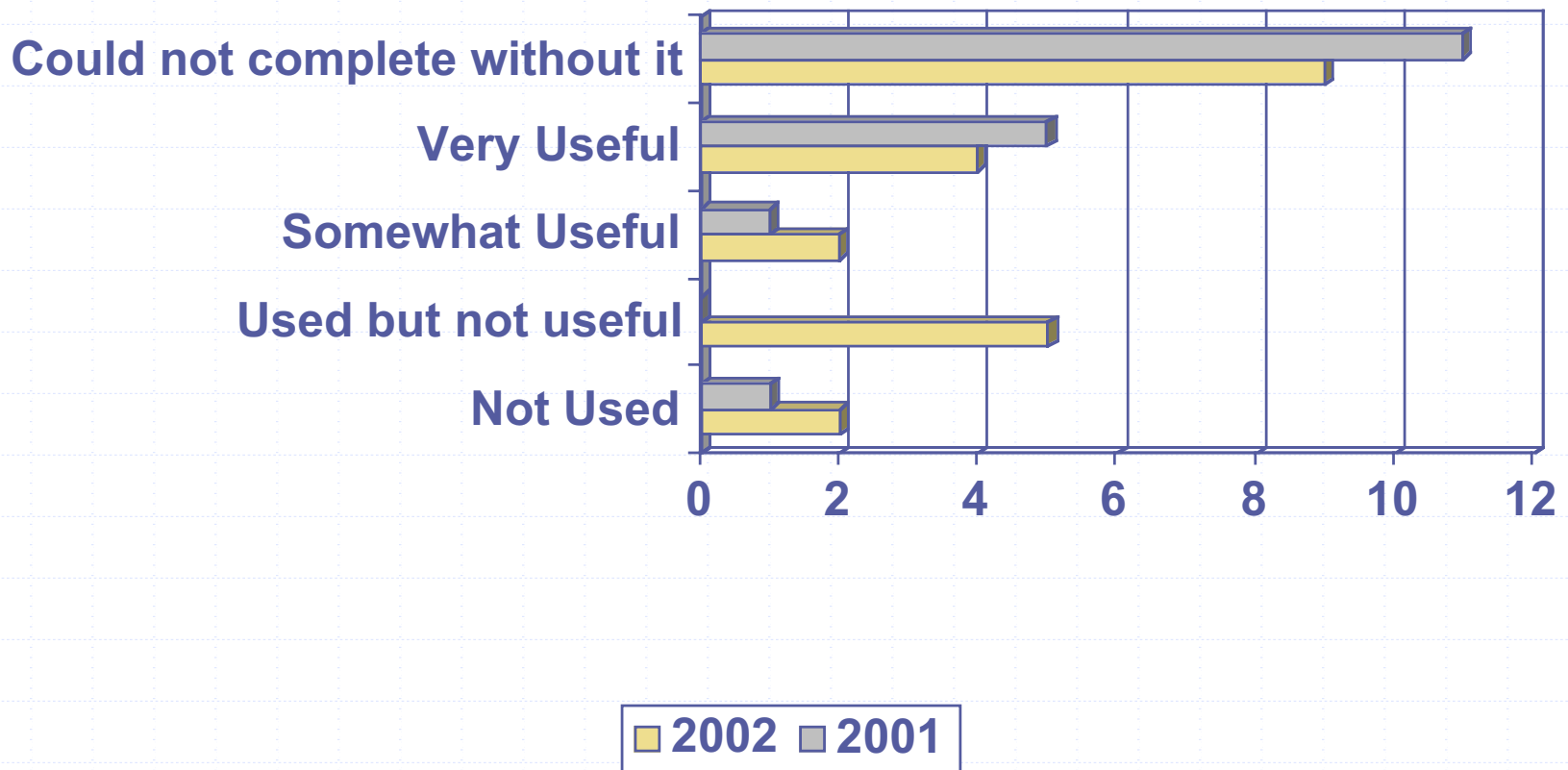
7. Which support resources were useful when creating your electronic portfolio?

d. Open lab hours



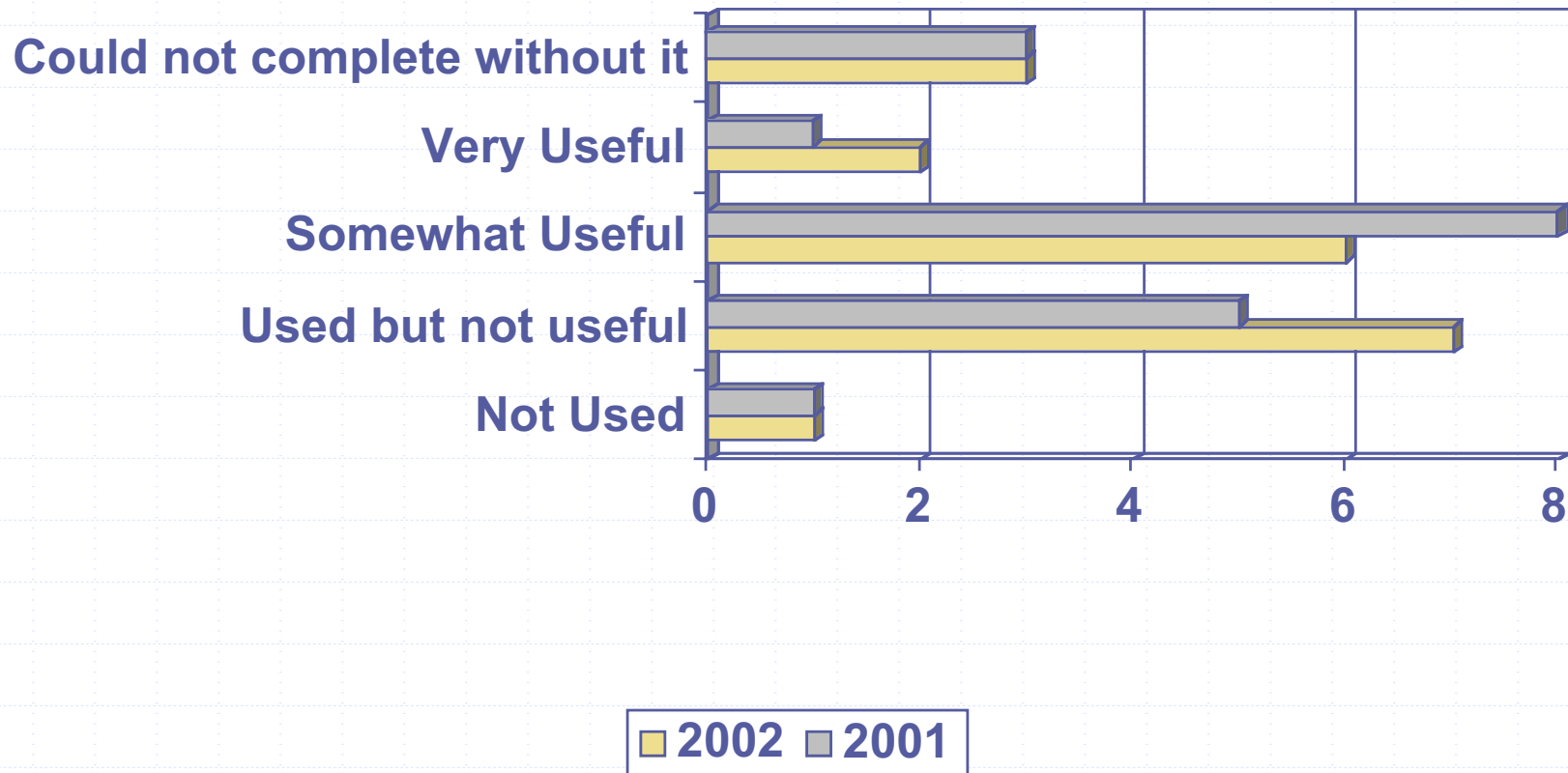
7. Which support resources were useful when creating your electronic portfolio?

e. Lab aide assistance in lab



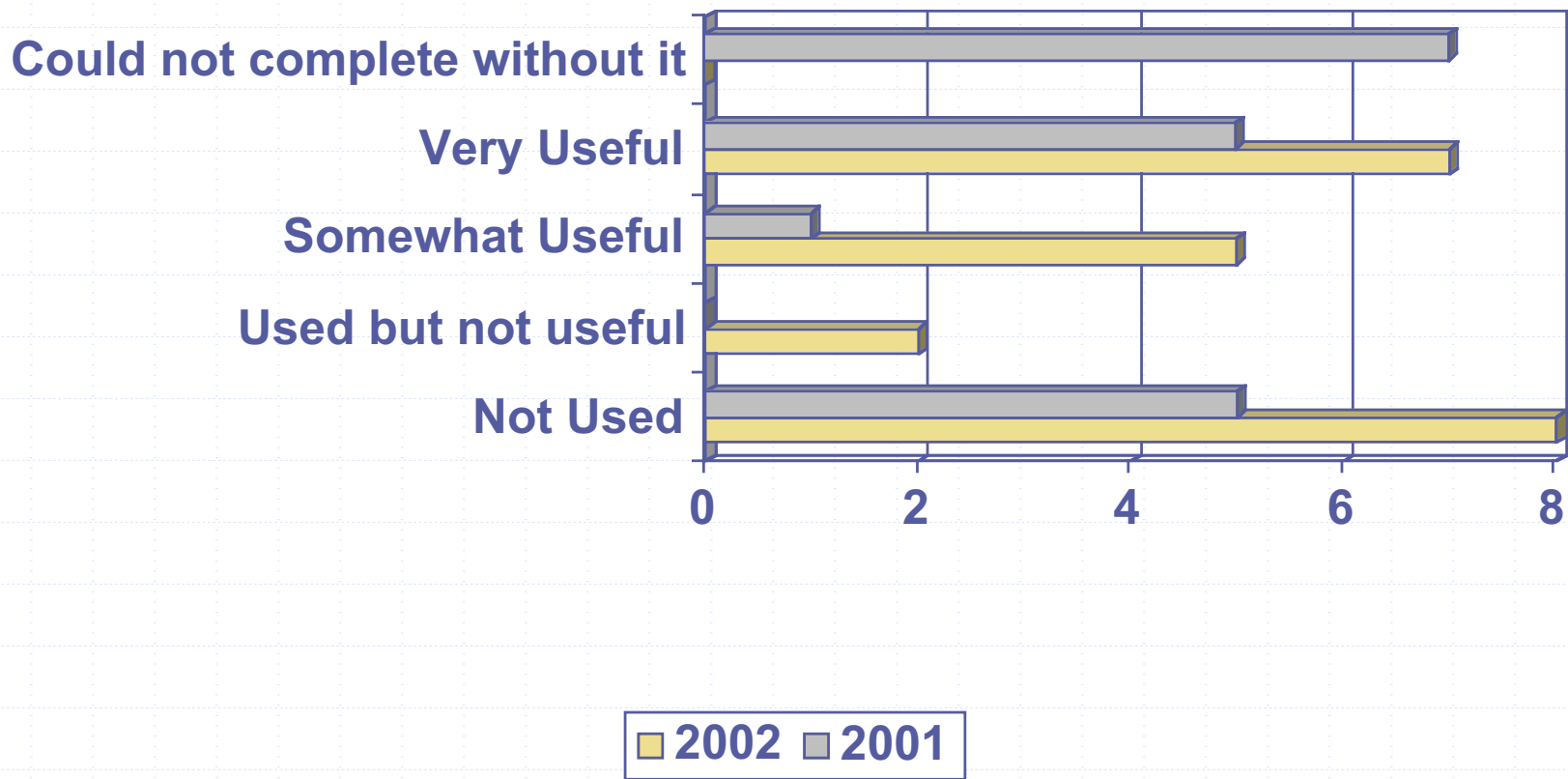
7. Which support resources were useful when creating your electronic portfolio?

f. Class sessions in lab



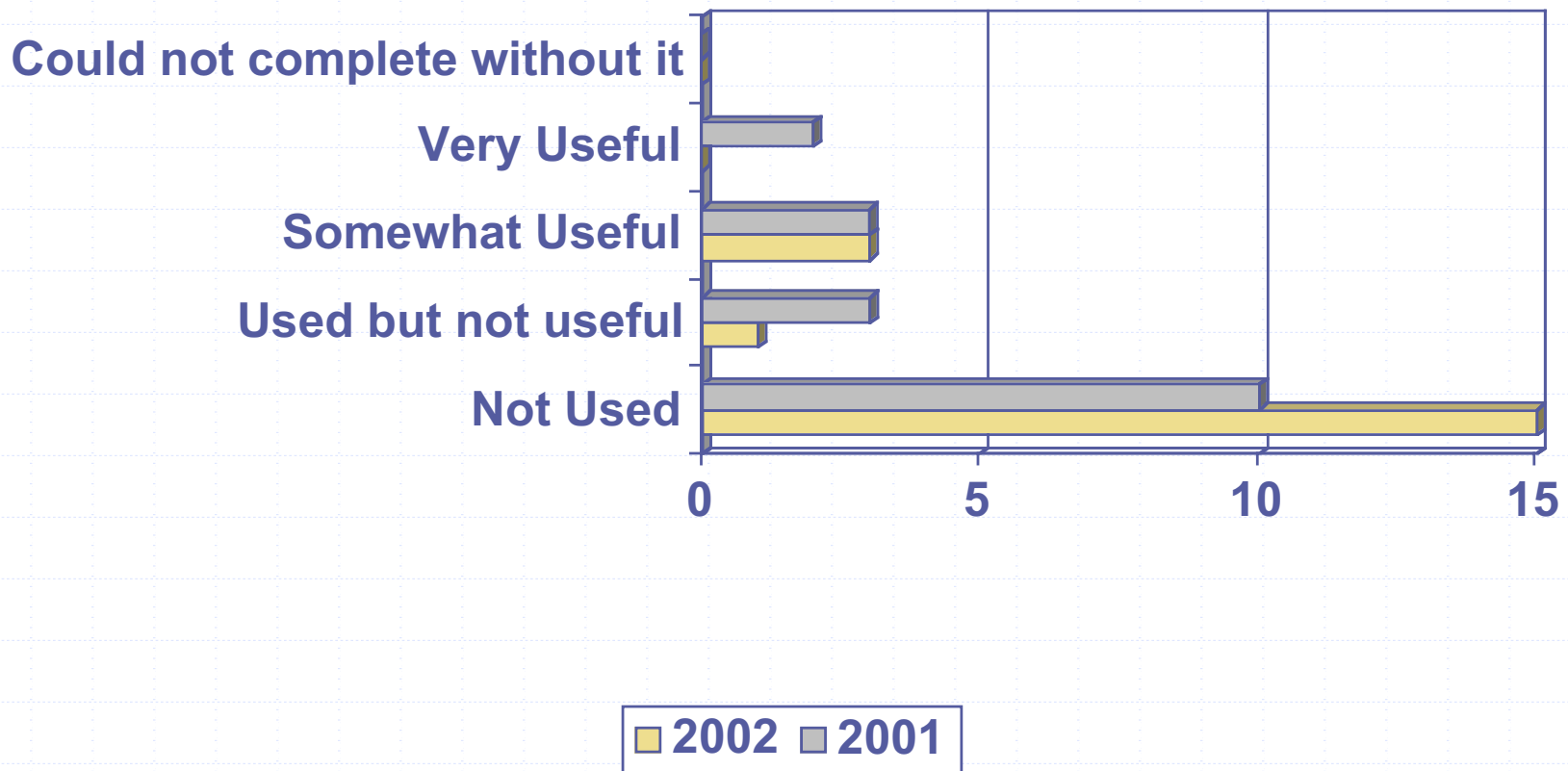
7. Which support resources were useful when creating your electronic portfolio?

g. One-on-one meetings with instructor



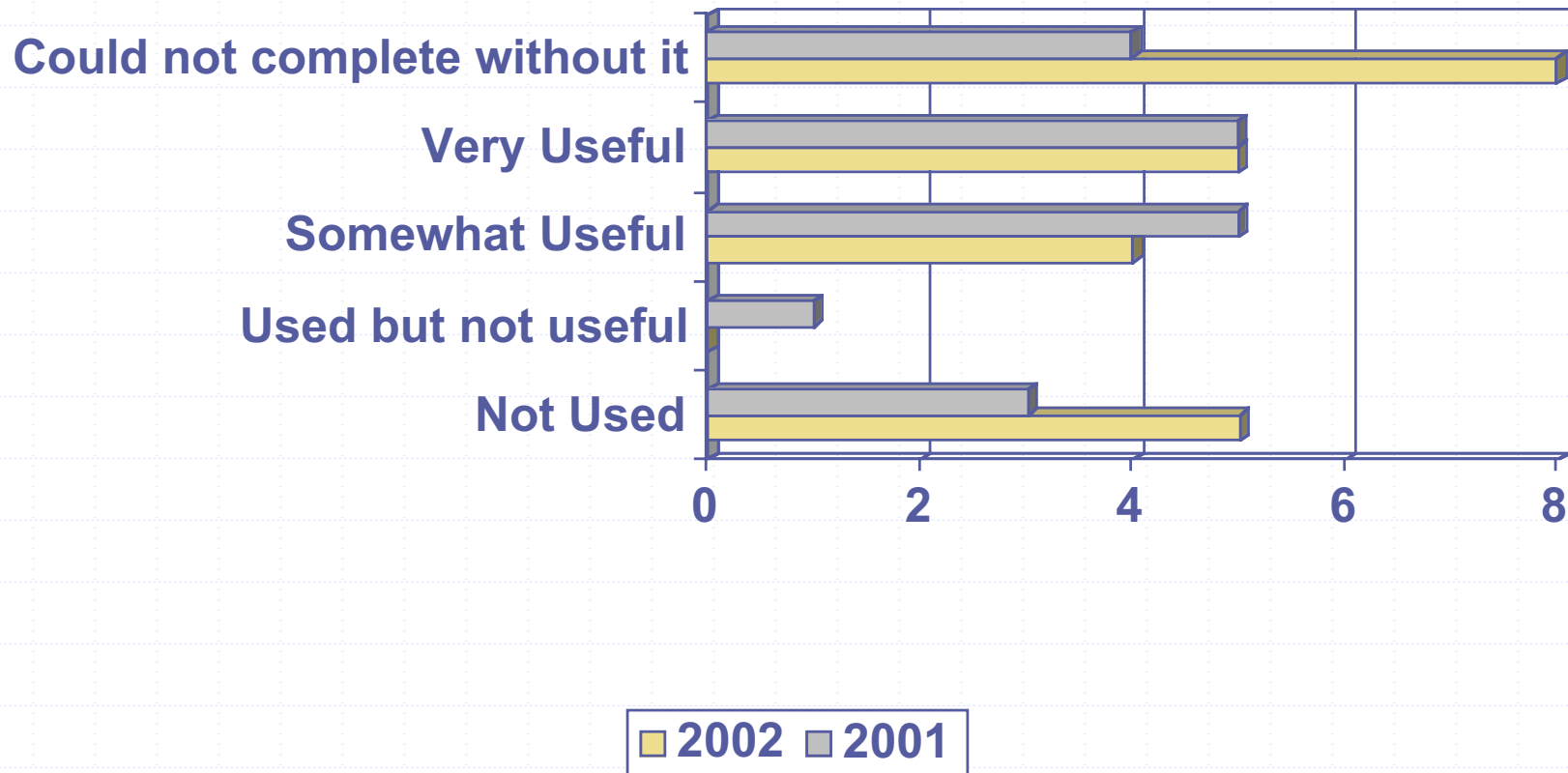
7. Which support resources were useful when creating your electronic portfolio?

h. Internet-based tutorials



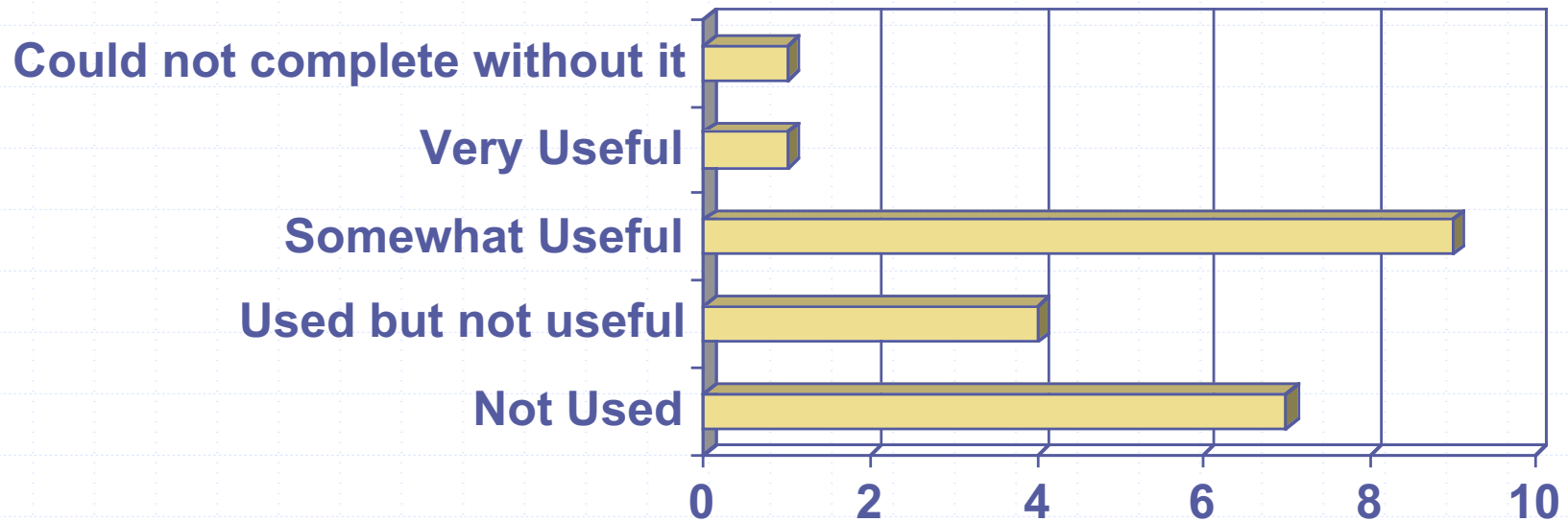
7. Which support resources were useful when creating your electronic portfolio?

i. Help from a friend or relative



7. Which support resources were useful when creating your electronic portfolio?

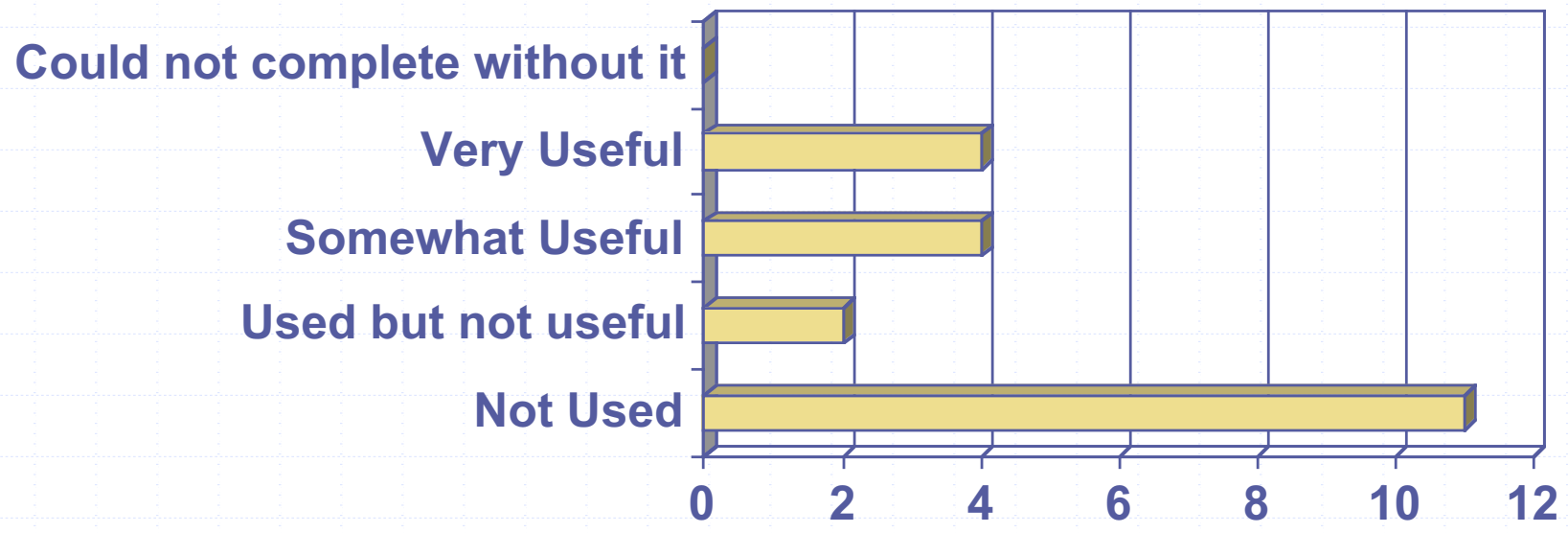
j. UAA's CD-ROM ePortfolio Handbook



2002

7. Which support resources were useful when creating your electronic portfolio?

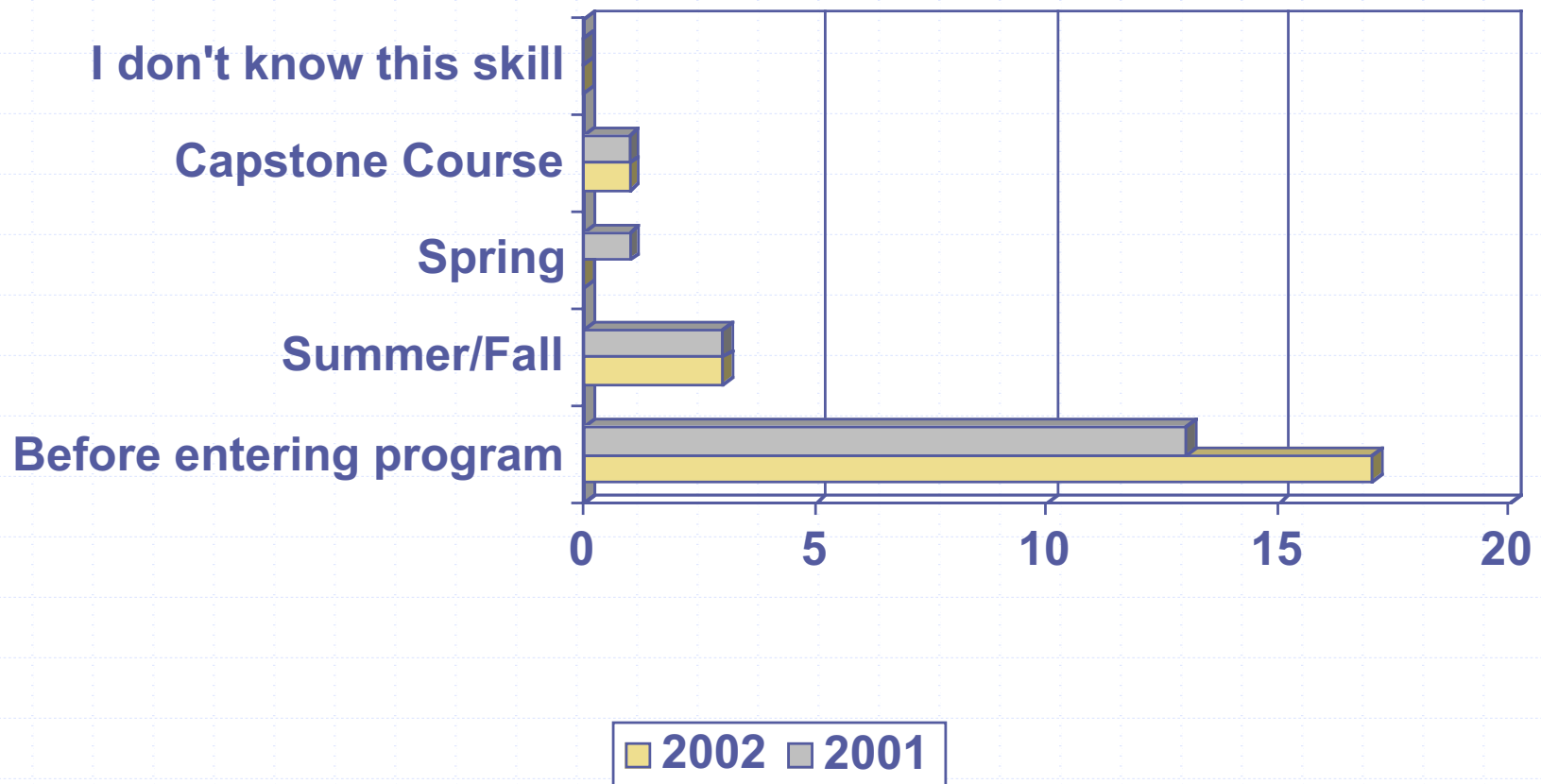
k. Digital video technology demos on UAA's CD-ROM



2002

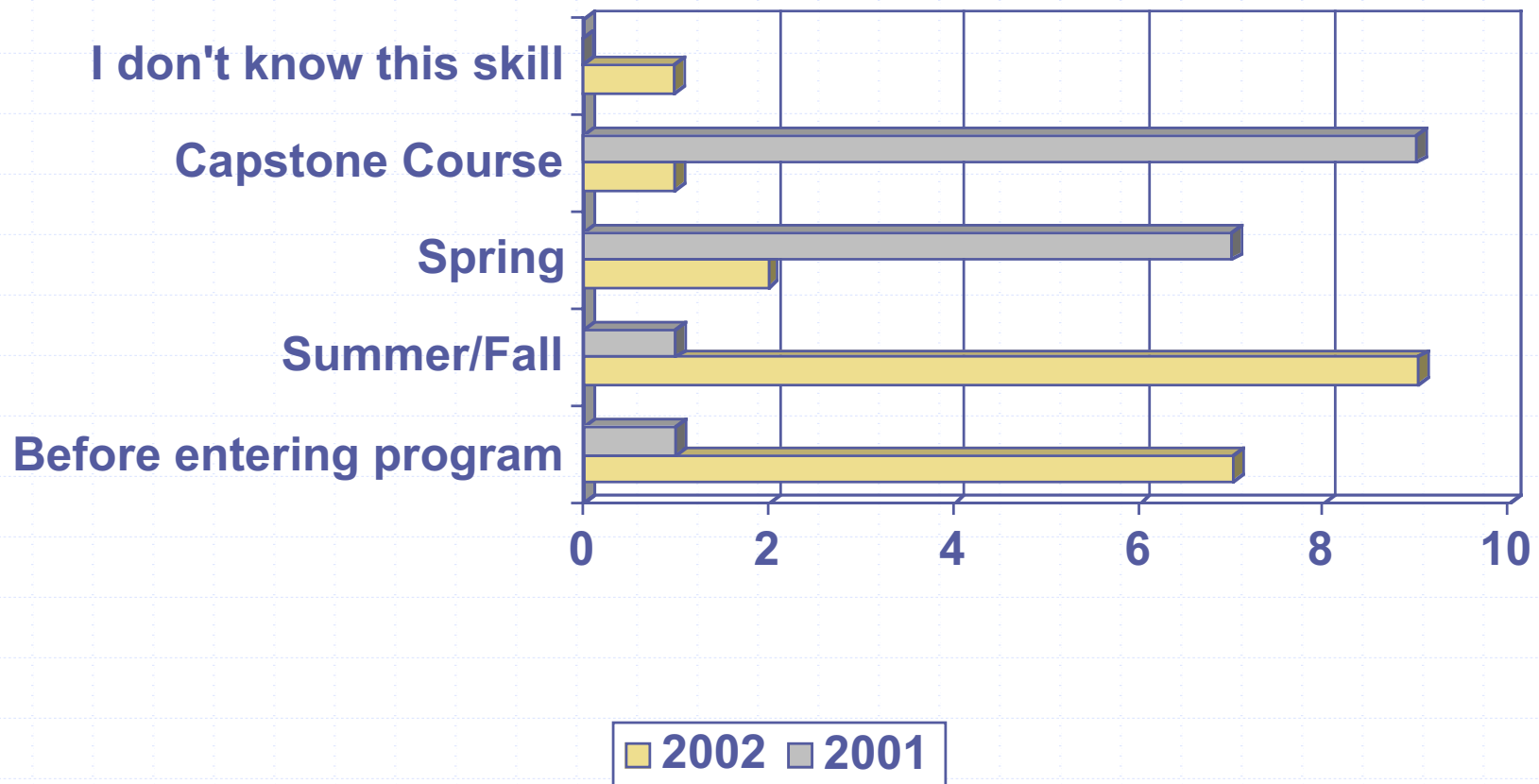
8. *When did you learn each of the following multimedia development skills?*

a. Set up folders to organize files on computer hard drive



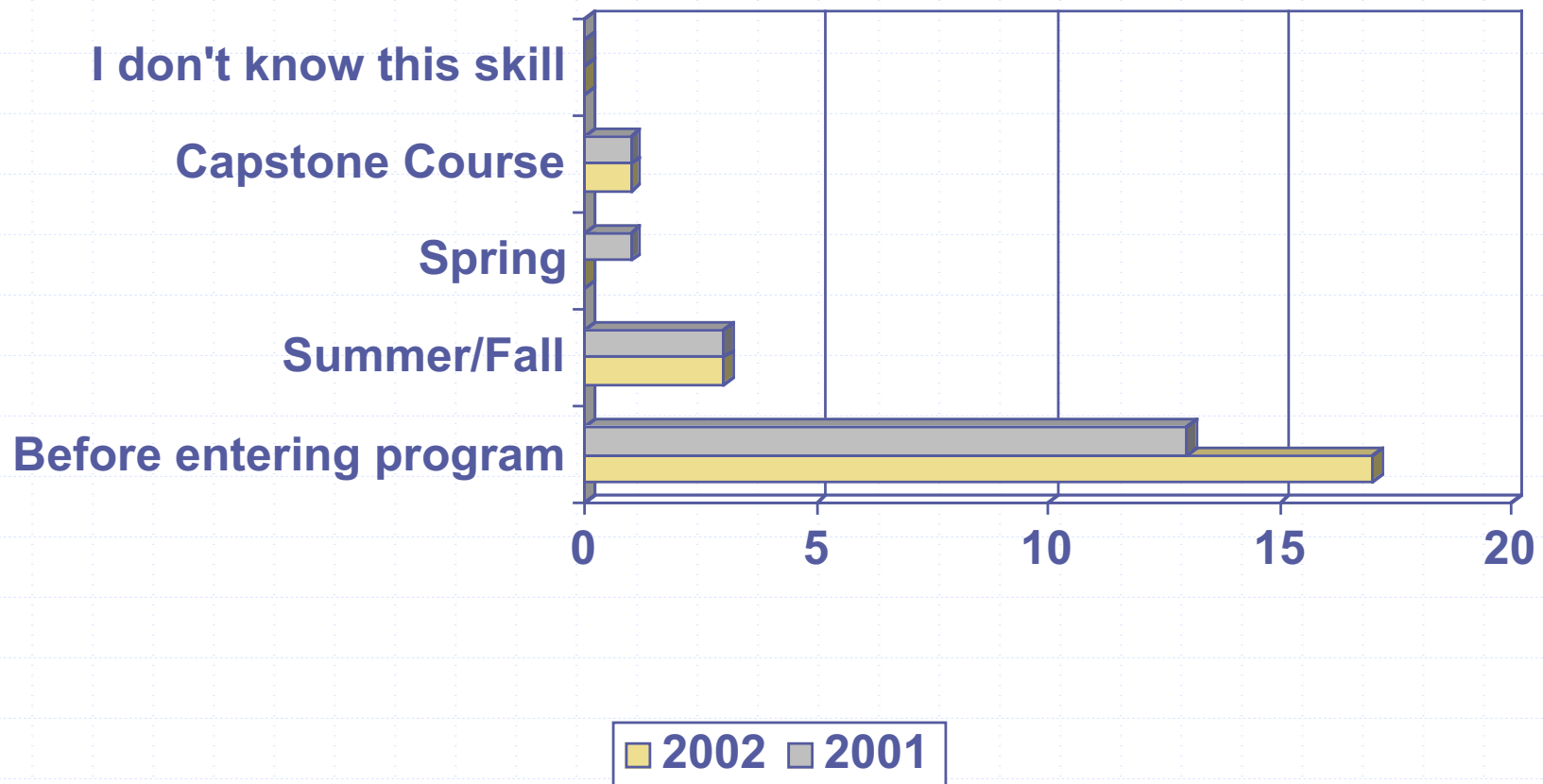
8. *When did you learn each of the following multimedia development skills?*

b. Use File Sharing to copy files to and from laptop and another computer



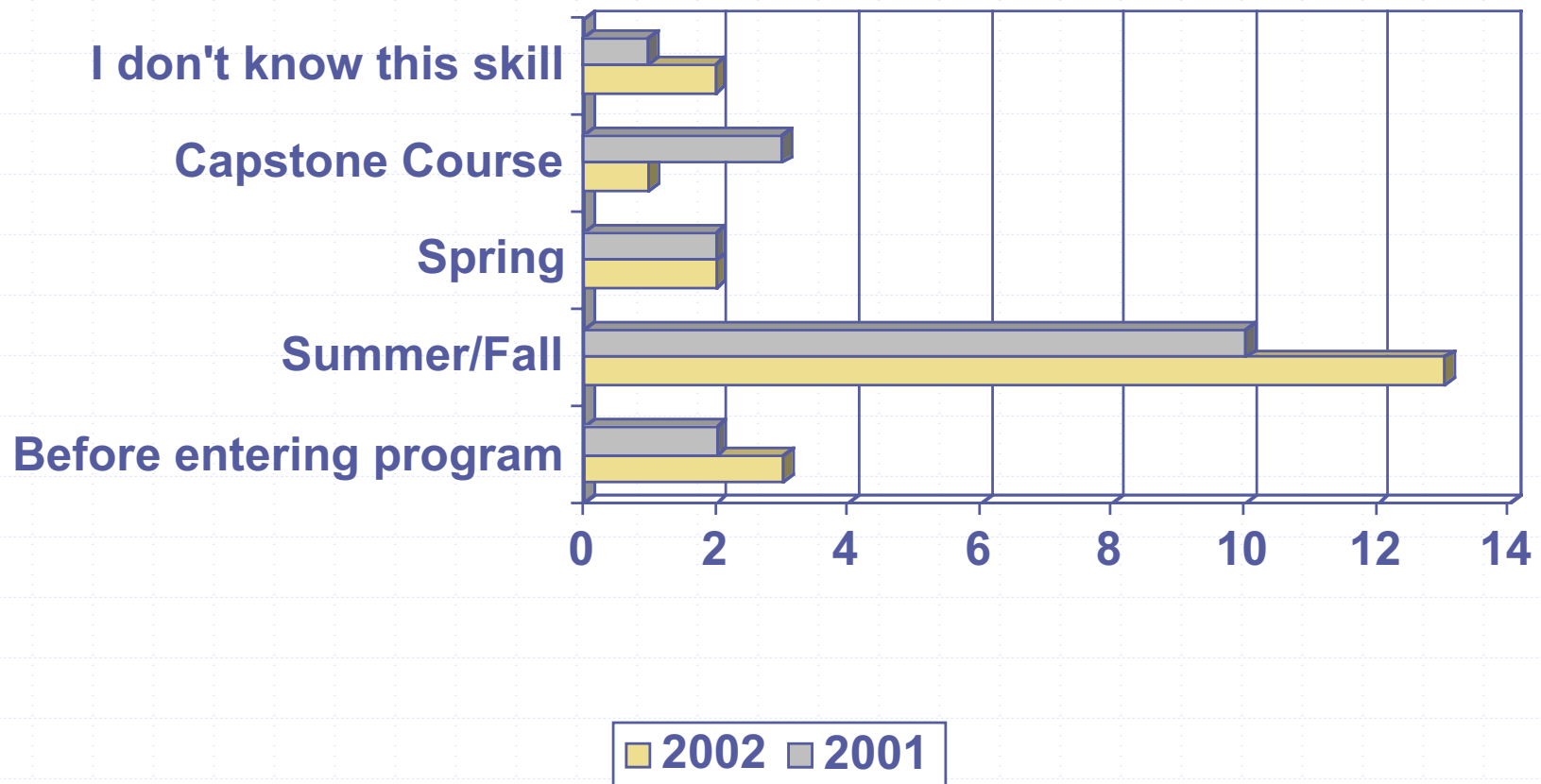
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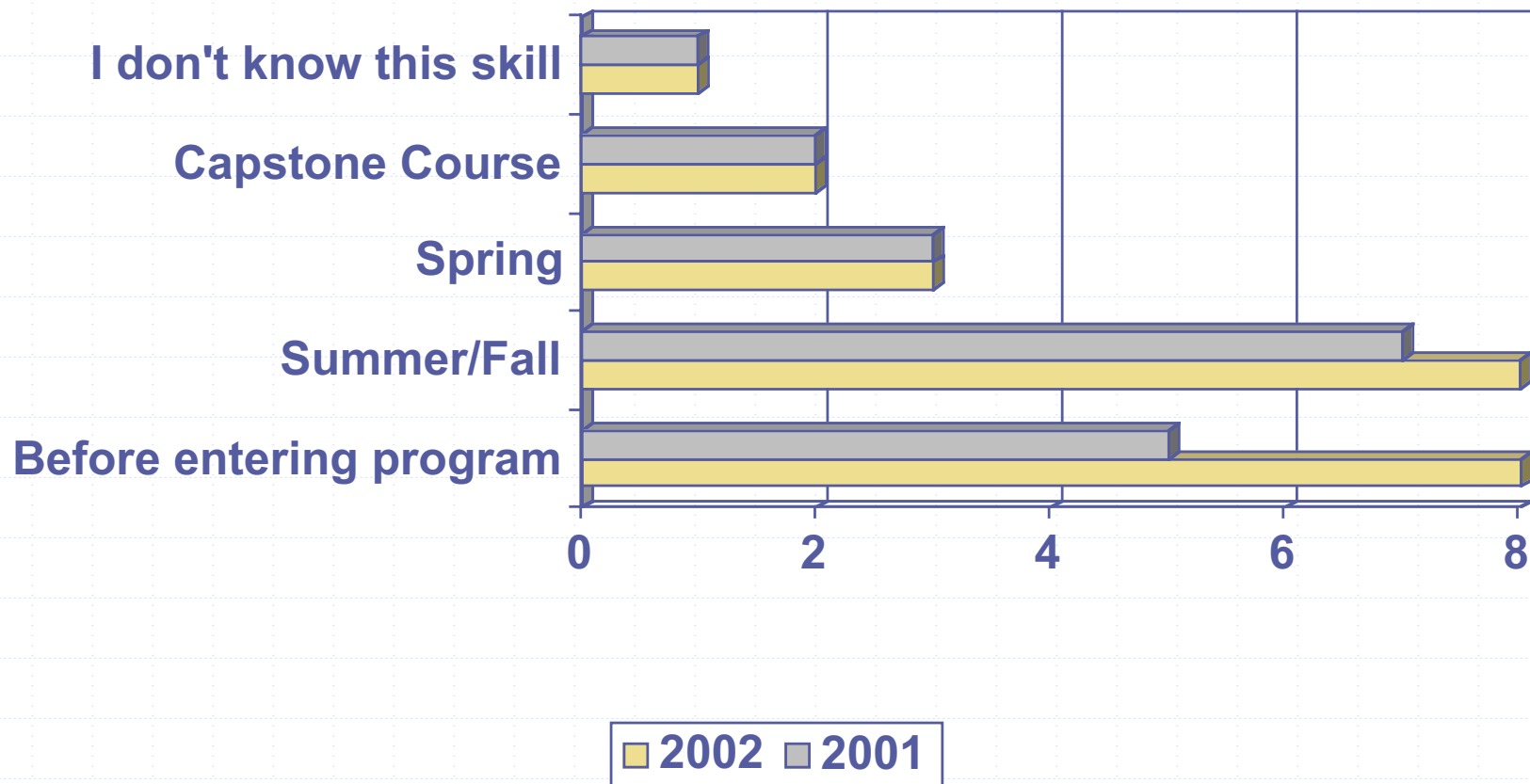
8. *When did you learn each of the following multimedia development skills?*

c. Use the Location Manager on the iBook to change preferences



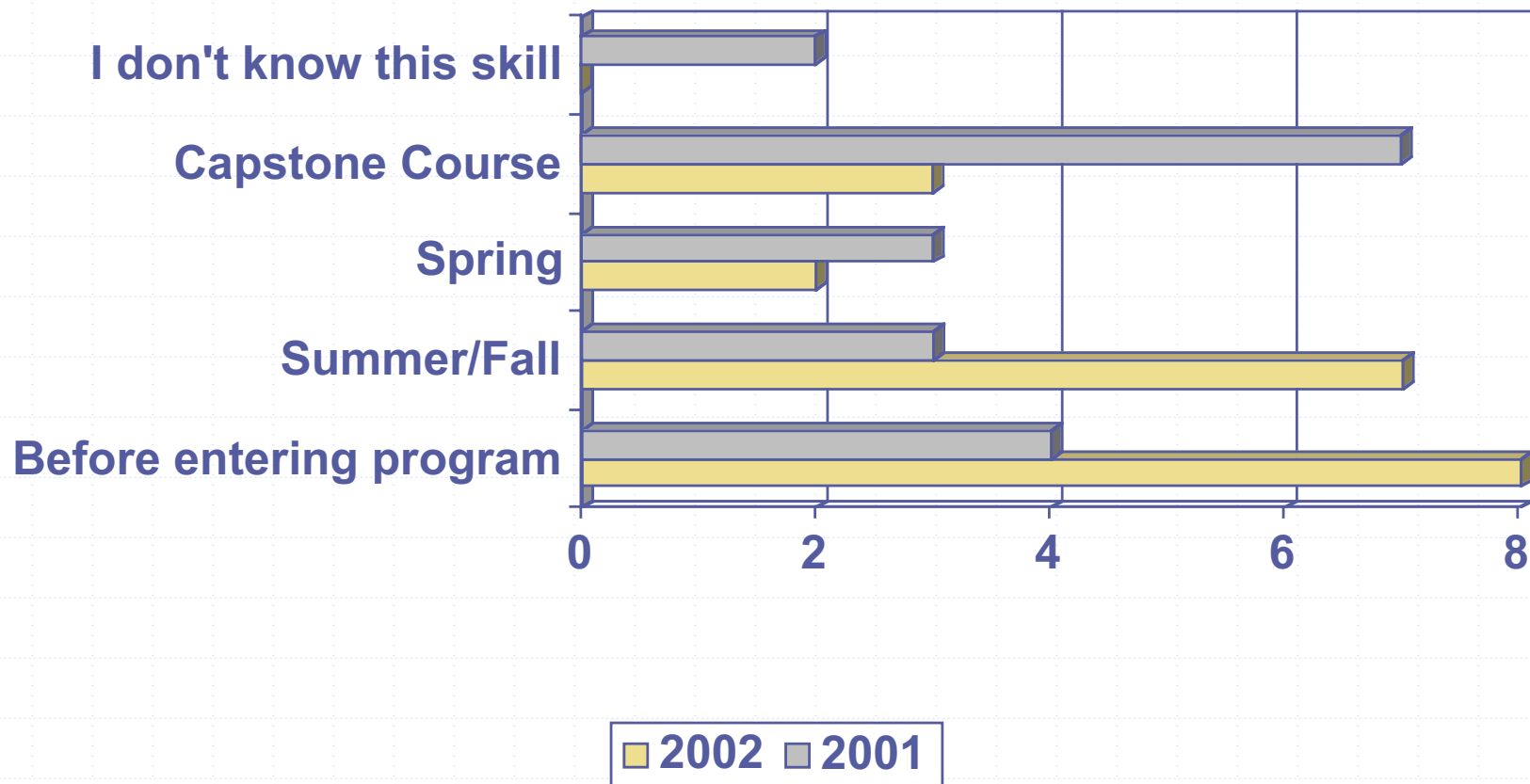
8. *When did you learn each of the following multimedia development skills?*

d. Use advanced features of Microsoft Word



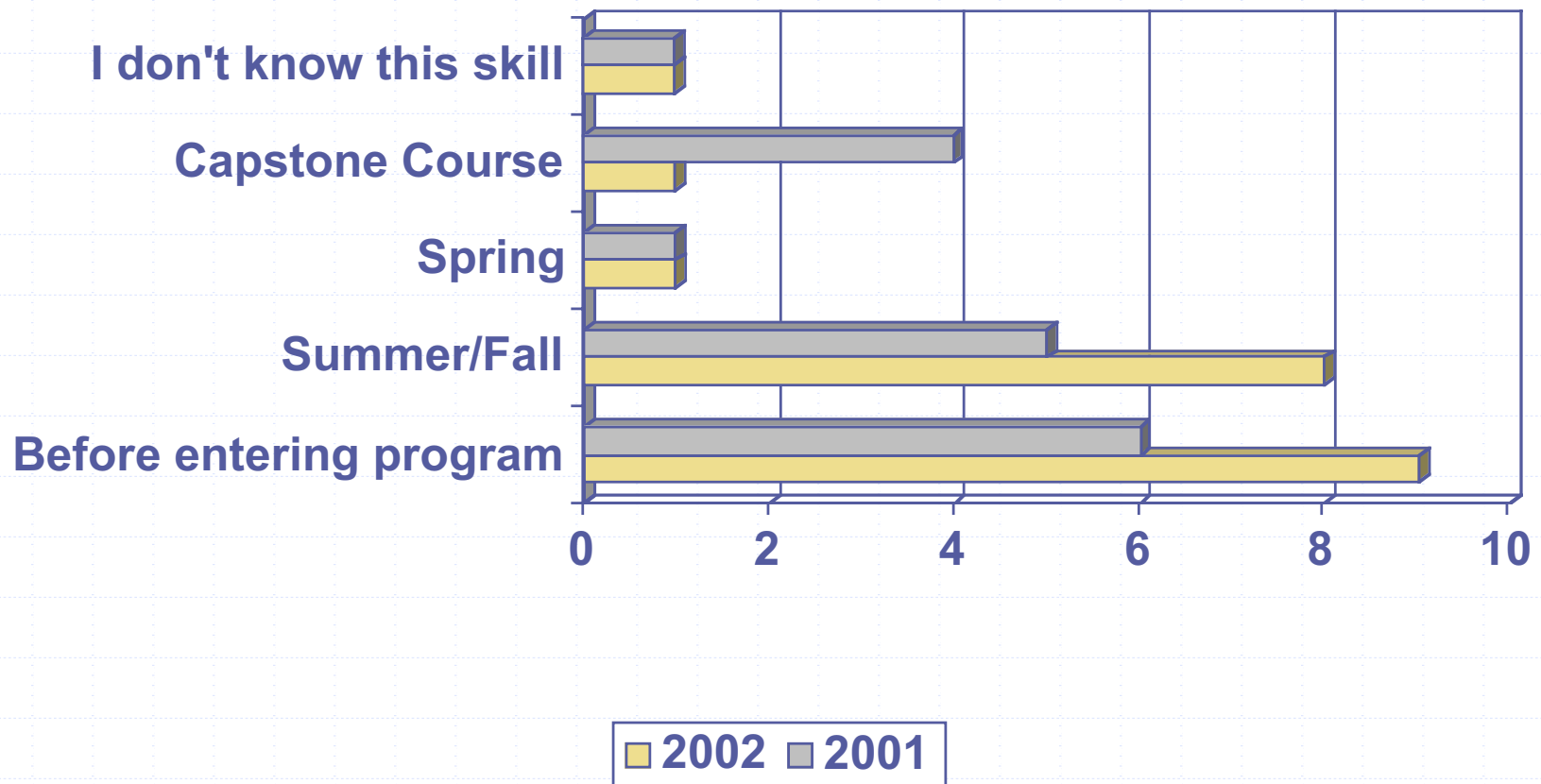
8. *When did you learn each of the following multimedia development skills?*

e. Use advanced features of Microsoft PowerPoint



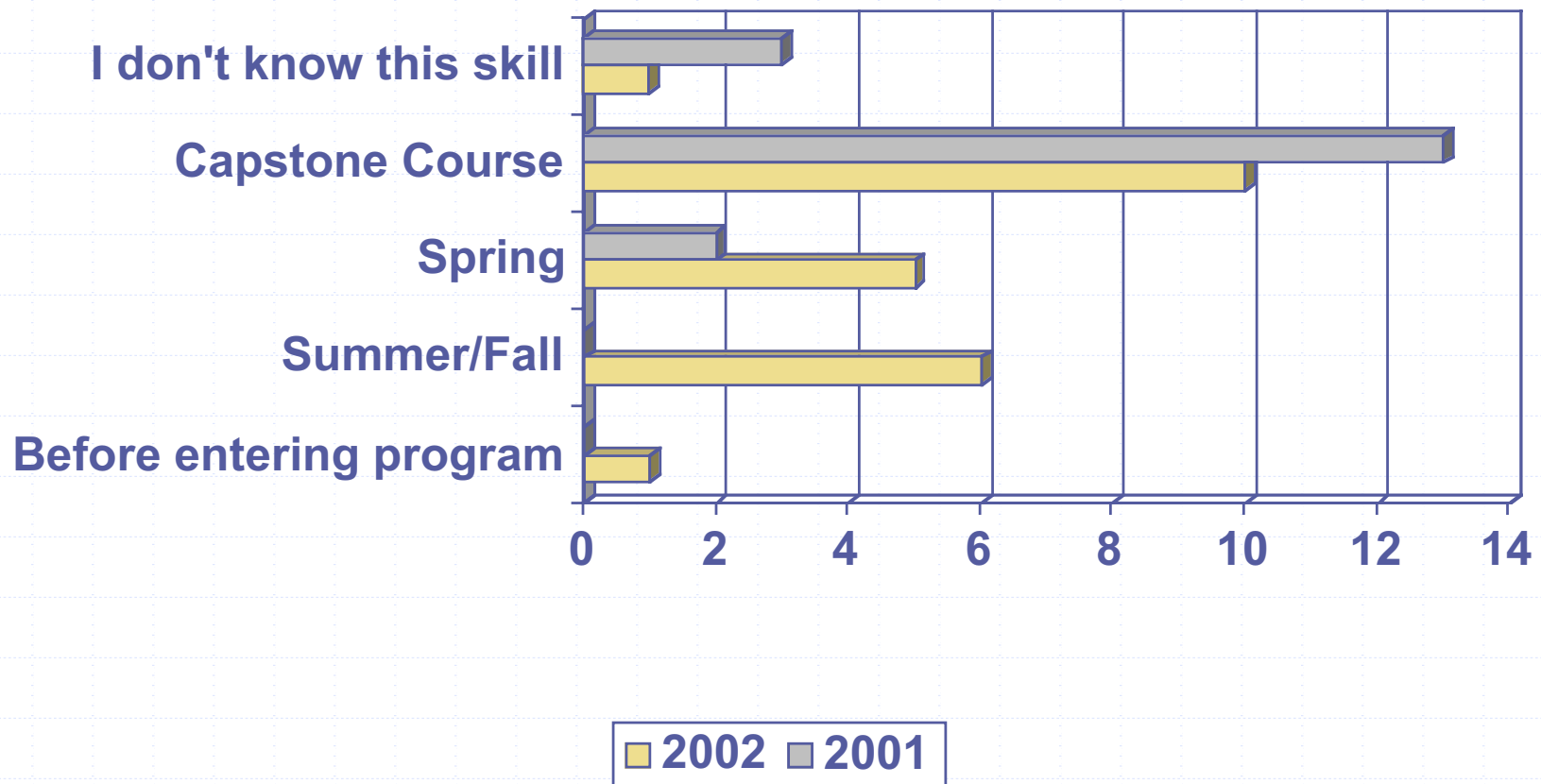
8. *When did you learn each of the following multimedia development skills?*

f. Use a digital camera to take pictures



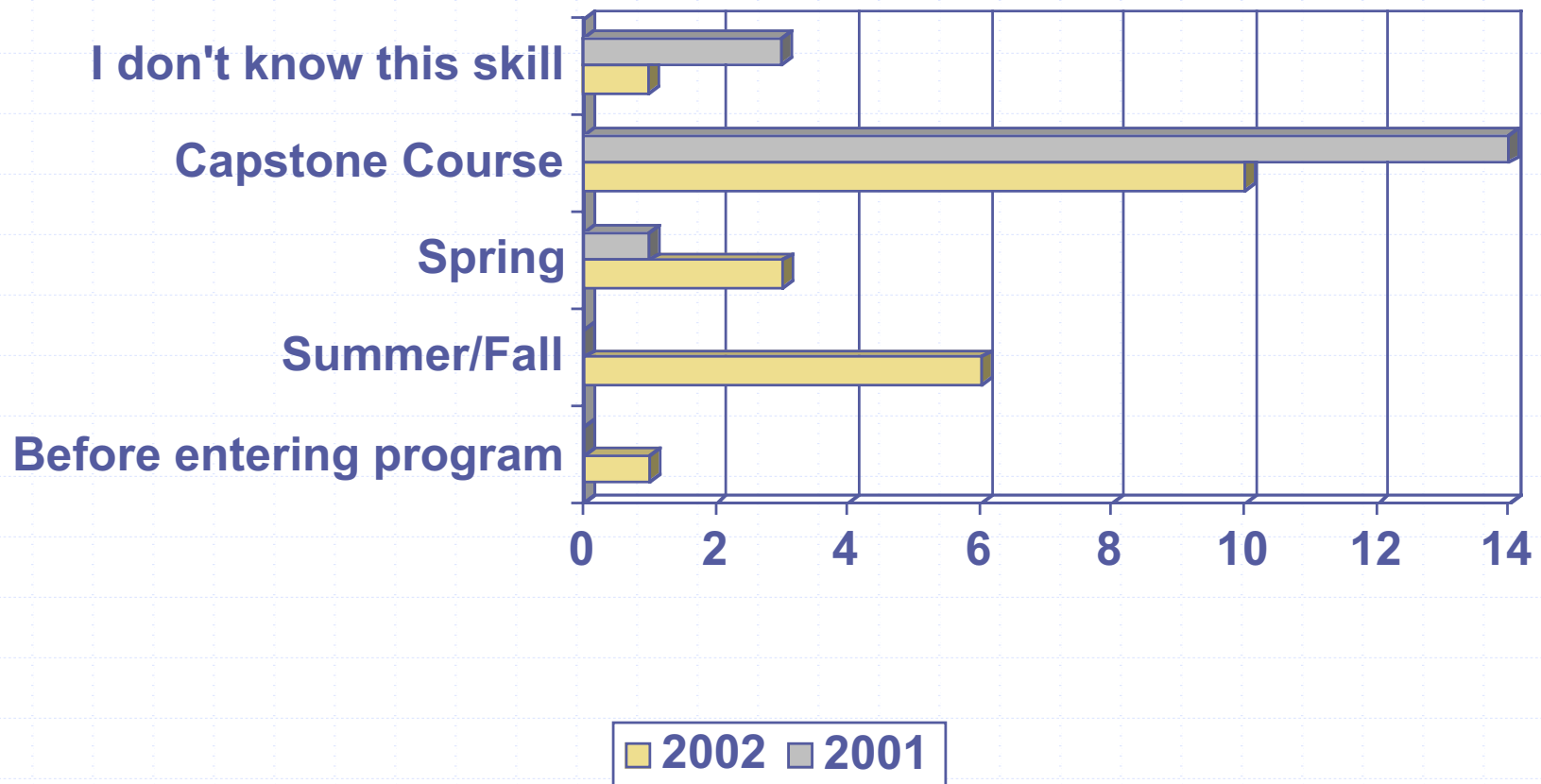
8. *When did you learn each of the following multimedia development skills?*

h. Transfer video into a computer for editing



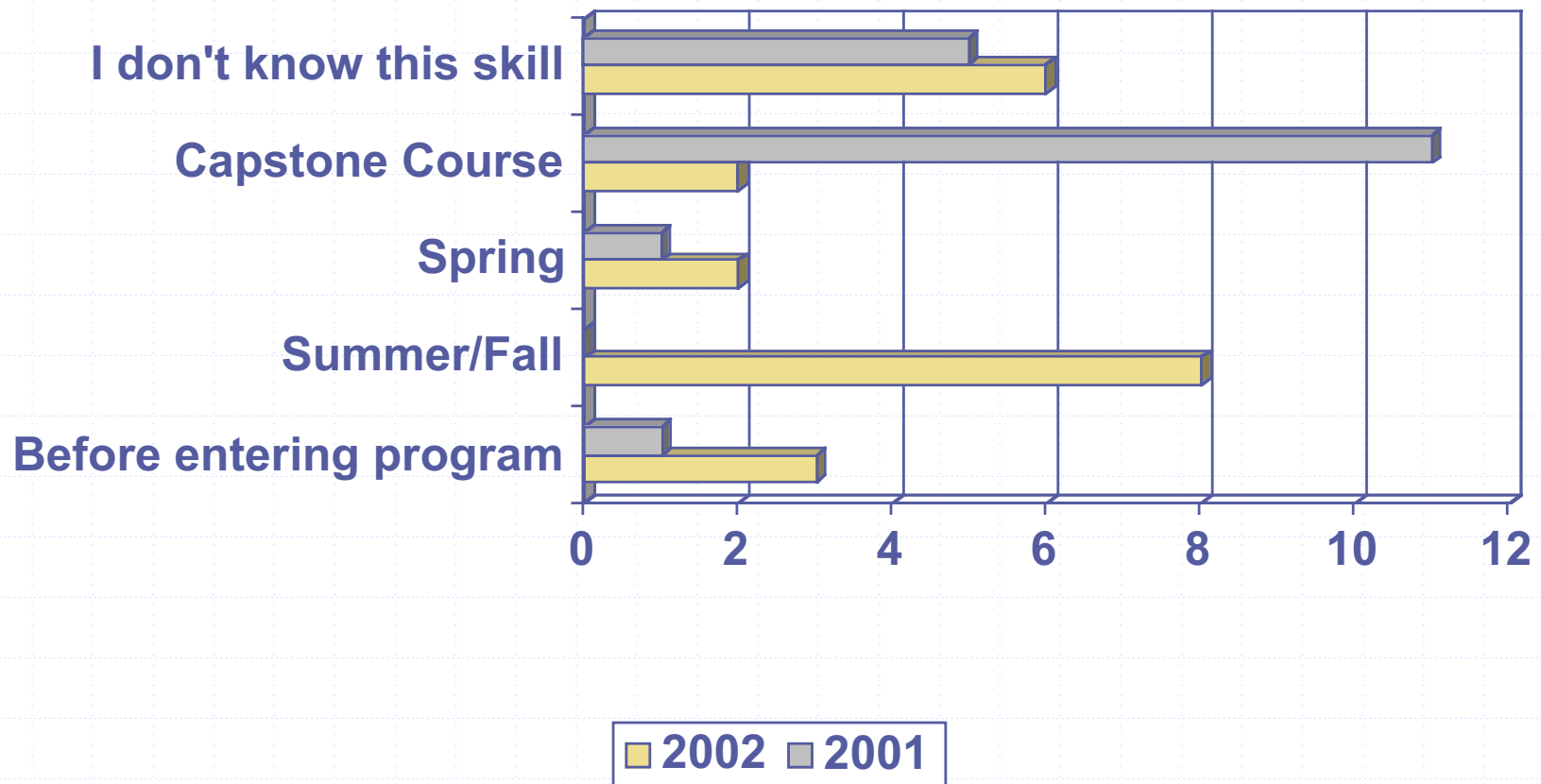
8. *When did you learn each of the following multimedia development skills?*

i. Edit a digital video using iMovie (or other program)



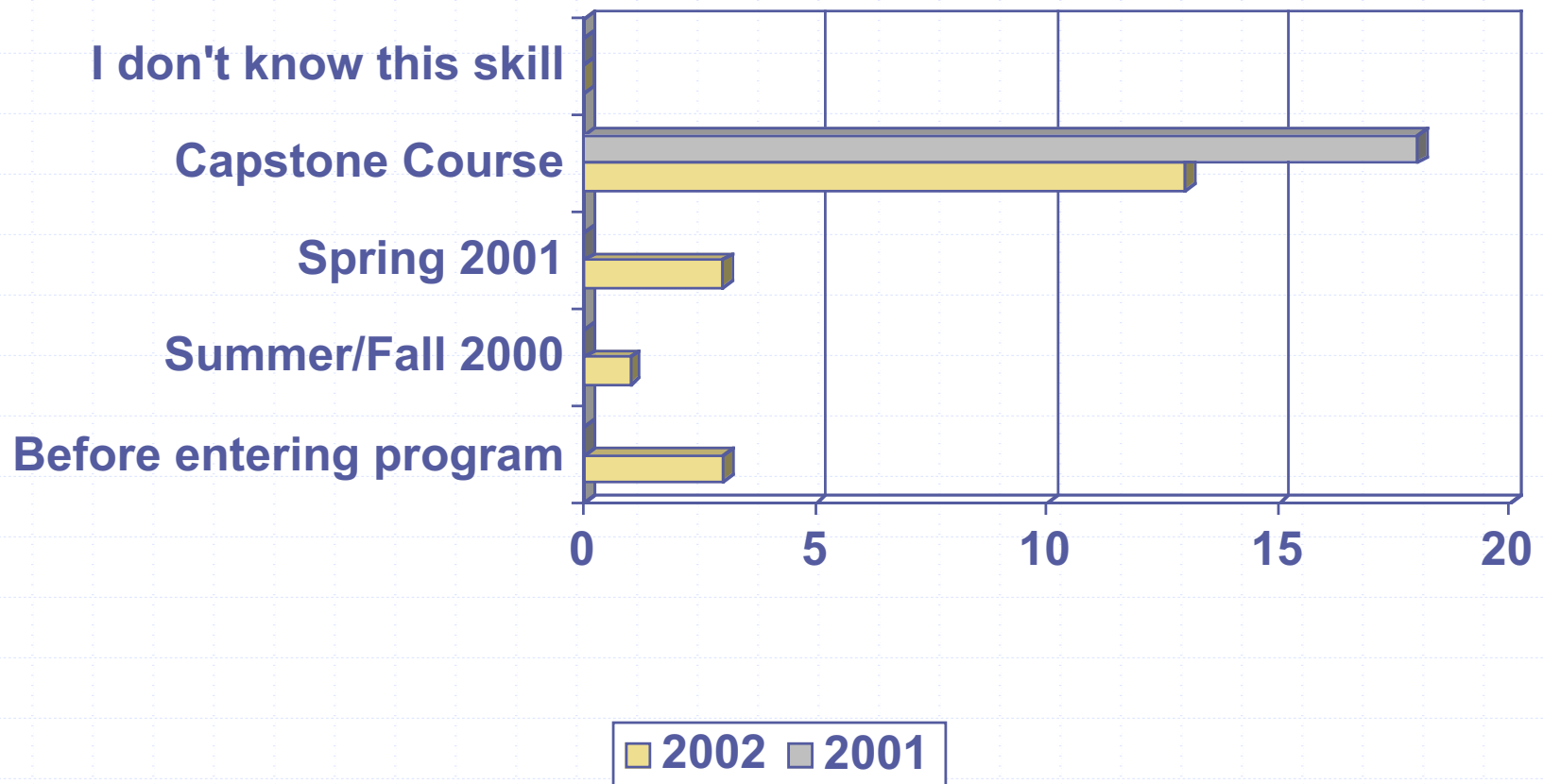
8. *When did you learn each of the following multimedia development skills?*

j. Record digital audio to the computer with a microphone



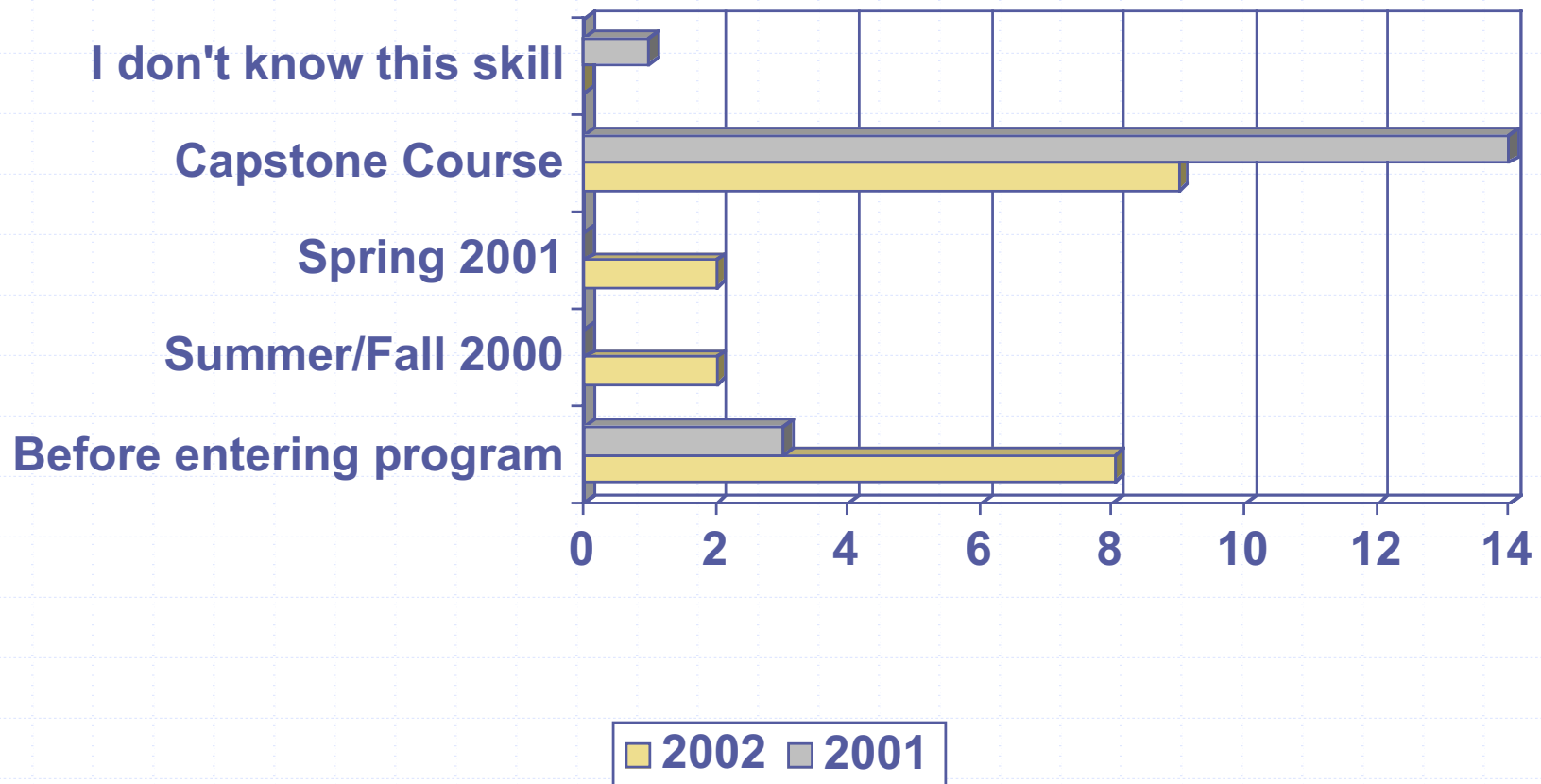
8. *When did you learn each of the following multimedia development skills?*

k. Create and edit Adobe Acrobat files from a variety of computer applications

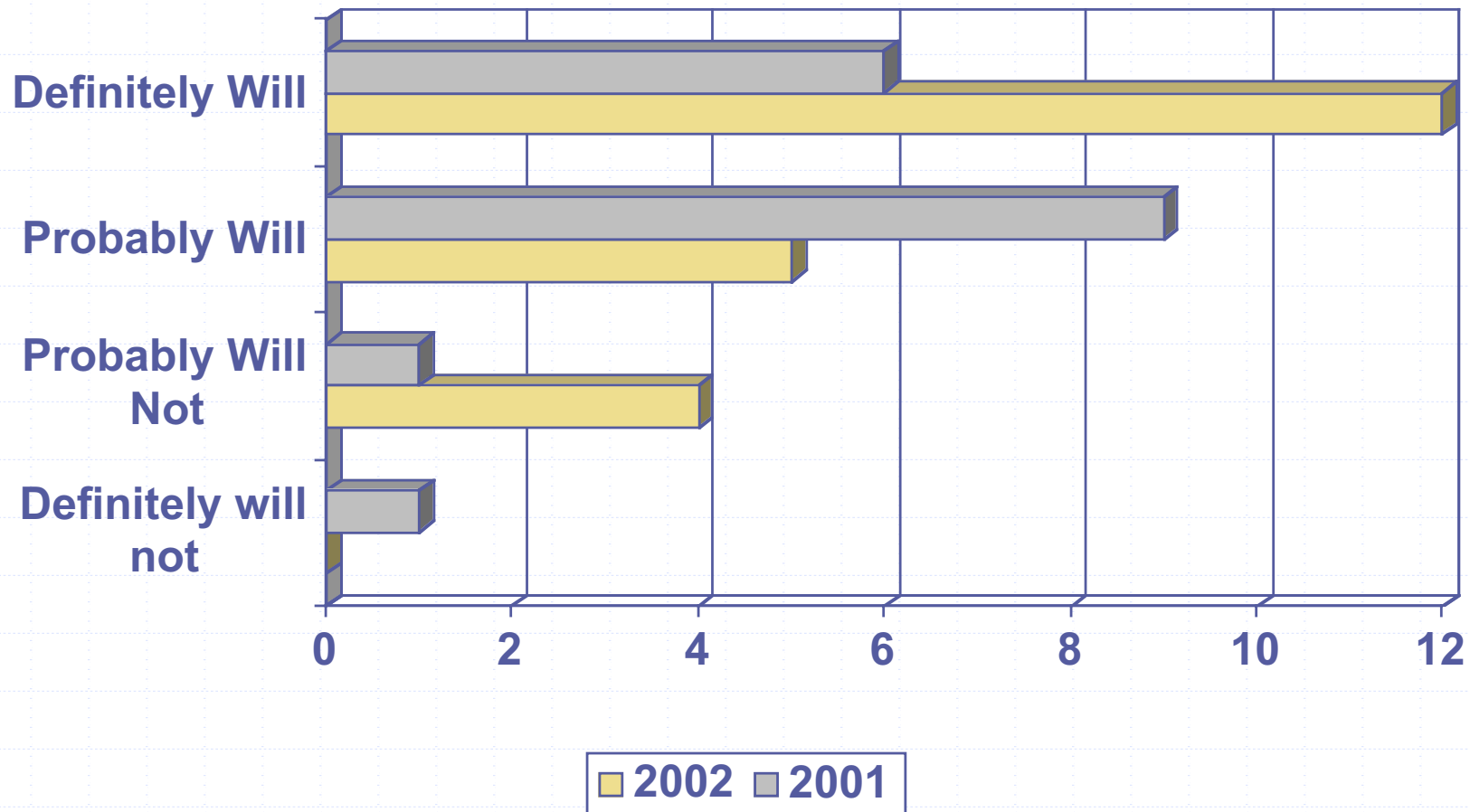


8. *When did you learn each of the following multimedia development skills?*

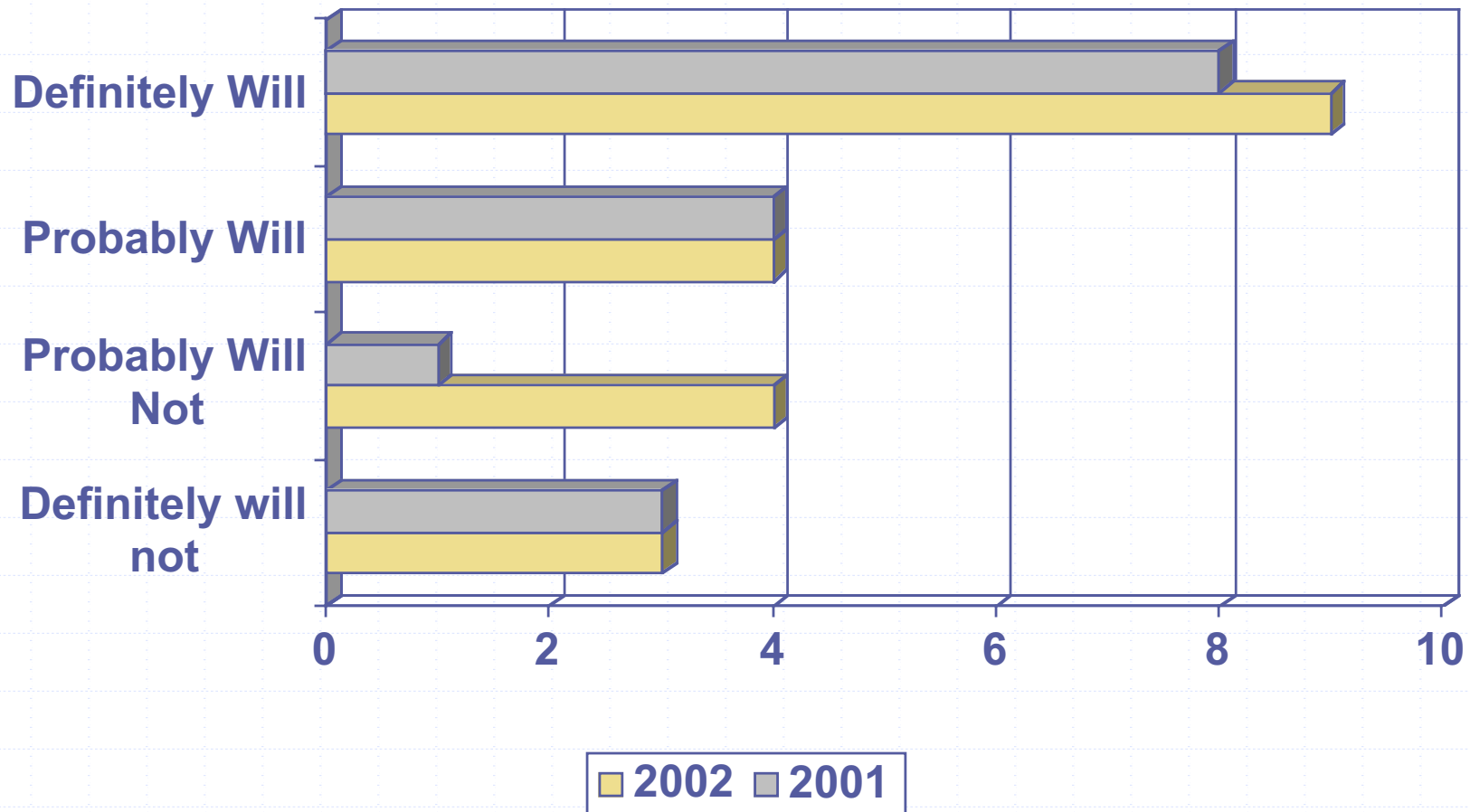
1. “Burn” a CD-ROM



9. Do you think you will use these multimedia skills with your students when you get your own classroom?



10. After having use of a laptop all year, are you planning to buy your own laptop computer by the time you get a teaching job?

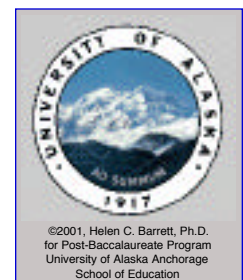
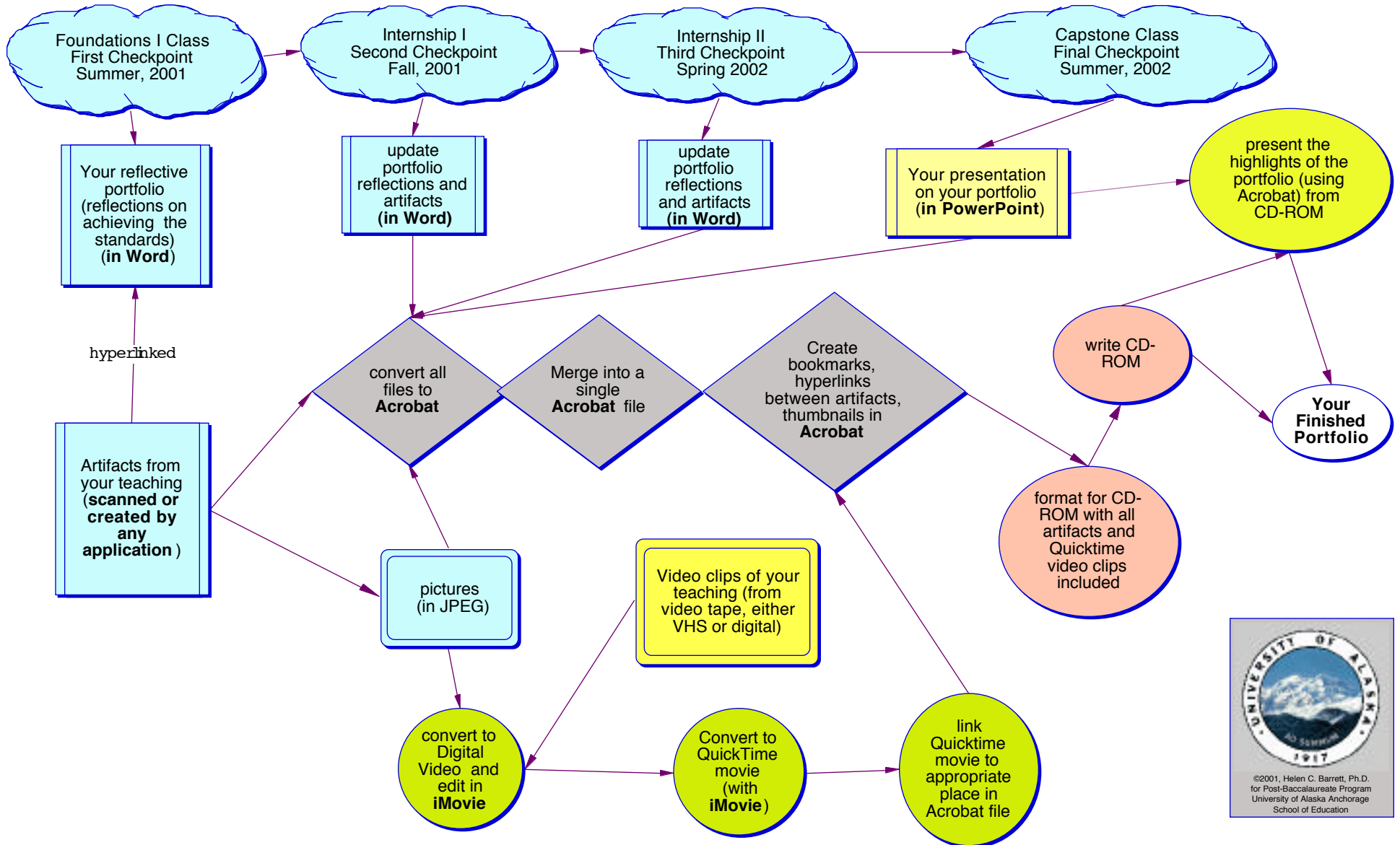


Changes as a result of survey

- Faculty workshop to support the electronic portfolio development in every course.
- Electronic Portfolio Handbook was developed on CD-ROM including Step-By-Step tutorials and videos
- Introduce iMovie earlier in program
- Finish reflective portfolio PRIOR to Capstone course



There is a quick overview of how we are putting the technology pieces of the electronic portfolio together over the four terms.



Need for more Research

- Develop a survey that can be adapted and delivered to students in Teacher Ed Programs throughout the country
- Need for more data collection and longitudinal research on the perceptions of teacher candidates and faculty on the value and purpose of electronic portfolios



More questions and issues

- Do the benefits extend to the classroom and enhance student learning?
- Is the extra effort worth it? (only one study included this year compares paper-based and digital portfolios).
- The time is right to move beyond implementation issues to research and evaluation.



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<http://electronicportfolios.com>

<http://transition.alaska.edu/>

