

35. Echoes Across the Years: What the Teachers Had to Say

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Over the years of this initiative and its pilots, teachers participated in a continuous feedback and evaluation process about the program's delivery, leaders, changes they would like to see, and much more. This chapter provides data that reflects the previous years, echoing the feedback, evaluations, and comments across the years in Rockford, the regional groups, the Chicago groups, the small and rural schools groups, and the NSF funded PHYS-MA-TECH groups. The information for the final year also applies to most of the program components offered throughout the entire time period. Most of the various kinds of workshops were offered during the final year, and for those not reported, the feedback and evaluations can be reviewed at the website. The website (www.strategicalliance.niu.edu) makes available feedback and evaluation data from each of the project and pilot years, through state event forms and end-of-year questionnaires.

For each year of the grant-funded initiative, a variety of feedback and evaluation data and information was collected. The most important and most thorough was collected in two formats. (1) Throughout each year, we used the state-required form for any events that provided teachers with recertification units. Although this form fell short of asking questions we would have liked to ask, it informed us generally about each event and did help us determine if corrective action was needed. (2) However, to augment the information provided by that form, at the end of each year, teachers completed a questionnaire about the overall experience throughout the entire year. This gave us valuable information and was also used to determine any necessary changes for the next year. The open-ended responses from both questionnaires provided deeper insight as well. We accumulated far more feedback and evaluative data and information than can be presented here, and instead we offer selections.

Each participating teacher was required to complete at least the basic program and follow through with piloting the second year. Some joined us for each year, beginning with the pre-NSF pilots funded by the state and continuing in each new round of professional development. Each year involved a new group of teachers in the basic program, while others continued to follow through for two or three years on average. Each year, the basic program continued and other workshops were added. An important aspect of this program is that teachers could continue at different levels – broadening and deepening their knowledge and skills at each level. The following reflects their perceived value of the program.

Final Year of Grant

For each workshop or event, feedback forms informed project leaders of any concerns, issues, or problems to be considered and addressed. However, with the exception of one year (described below), there was very little to address.

Lessons from the Difficult Year

During one of the years of the Rockford project, we had to address difficulties so severe that we used a formal conflict resolution process. That was the only time, in all our projects, when we needed formal conflict resolution, but we had never before worked with a district where the climate involved so many political and attitudinal factors.

For one year of the program, district leaders changed the time that had been scheduled to spend with the teachers; instead they decided to let the teachers complete the development of the modules on their own and without support. In adjusting, the district agreed to at least let us offer some help days for support. However, teachers were not required to use the support. Those who sought it did well and completed their modules. Those who did not seek our assistance, however, did not complete their modules, delivered low-quality work, and were so frustrated and afraid of being penalized by the district that they disrupted the program scheduled for the week of their return to us (the two weeks before school started). Teachers felt guilty for not completing their modules or for doing so at low quality levels and acted out against some of the project leaders.

When we tried to move forward with the scheduled program, the recalcitrant teachers refused, saying that they needed to finish their modules or they would not get their stipends due at the end of the summer. We had never mentioned withholding of stipends as a possibility in the situation, and in fact union rules required that teachers had to be paid for “seat” time, whether finishing requirements or not. Completing work had not usually been a problem. Teachers felt a normal sense of pressure from our desire to work at a fast pace, but we provided the support they needed at any given point.

It was a horrible way to end a year. We resorted to a good and reliable conflict resolution process, with observers who could vouch for its integrity, but accomplished little. We scrapped some of our program, gave additional time to finish the modules, and paid the stipends. We discussed various options among ourselves but were powerless to change anything. So when teachers did not appear for the support sessions and then showed up with incomplete modules, we were disappointed but not surprised. It was a traumatic event for all of us and the teachers as well.

The second big issue confronted during that same time period was a strike by the teachers. While we were working with them, their union was deciding whether to go on strike against the district. This added to the complexity of the situation, increased poor attitudes, and contributed to a fear by some of our teachers that they might be punished for not delivering what they had committed to. This was not my first experience with a strike or a late start to the school year. Several years before, while working with approximately 150 teachers in the Chicago district, three of five school years had traumatic beginnings. To the credit of the teachers, however, they took it all in stride, remained positive, perceived the grant initiative as an overall positive, and found ways to adapt to the situation. Therefore, when the Rockford teachers

threatened to go on strike, we understood that the tense situation did not inevitably have to produce a negative climate. The difference, in our view, was that the Rockford teachers felt badly about not living up to their commitments.

We have drawn some lessons from that difficult year. (1) When the integrity of a program is in jeopardy and the outcome could be worse than refusing to do it a different way or not at all, it is better to hold true to the right and best way and refuse to do the program at that time. It is better to wait to deliver it when things can be appropriately accomplished. (2) When using a conflict resolution procedure, especially with a group that lives in perpetual conflict and turmoil, it is a good idea to have objective observers who can vouch that the process has integrity and is of the highest standard or best practice and that the individuals leading it have integrity and can lead it appropriately.

Our lessons do not imply that we would shy away from districts that have issues because they are where the greatest impact can be accomplished for students. In fact, most of our initiatives have been intentionally with districts needing support for change and reform. Generally, we feel very good about the results each year of the project, even this one, but it is important to understand that when working with districts in need or politically charged, there are times that are not easy and may require conflict resolution.

Summary

We have found that most teachers will provide useful and informative feedback and that they will evaluate professional development, support, leadership, quality, needed or desired improvements or changes fairly accurately. We have chosen to show our respect by listening and valuing their responses, thoughts, commitment, dedication, respect, quality, and productivity. The program keeps growing because they feel that it is their program and that we have their goals as our primary purpose. When trust and understanding are the foundation for working together, the feedback and evaluation are genuine and well-meant.

The following data reflect what teachers had to say about the last project year; data from all the other years are available on the website: www.strategicalliance.niu.edu.

Table 35.1 Program-Specific Questions

| | | Percentage | |
|-------------------|------------------|------------|--|
| Question 1 | Superior | 44% | Overall, when considering all NSF workshops that I attended this year, I feel that their value has been |
| | Excellent | 48% | |
| | Good | 4% | |
| | Fair | 4% | |
| | Unsatisfactory | 0% | |
| Question 2 | Yes | 69% | I am better prepared to use standards as a basis for curriculum, learning activities, daily lessons, student assessments, and other instructional decisions because of my involvement in the NSF project |
| | Most of the Time | 27% | |
| | Somewhat | 2% | |
| | Seldom | 2% | |
| Question 3 | Yes | 79% | I am better prepared to use technology and related software in my teaching. |
| | Most of the Time | 18% | |
| | Somewhat | 6% | |
| | Seldom | 0% | |
| Question 4 | Yes | 69% | Has the NSF project changed my thinking about the use of inter-disciplinary instruction in my teaching? |
| | Most of the Time | 16% | |
| | Somewhat | 10% | |
| | Not Really | 4% | |
| Question 5 | Yes | 67% | I'm better prepared to develop and implement an interdisciplinary curriculum in the areas of math, science, English and/or technology. |
| | Most of the Time | 25% | |
| | Somewhat | 6% | |
| | Not Really | 2% | |

Table 35.2 Program Specific Questions (continued)

| | | | |
|-------------------|---------------------|-----|---|
| Question 6 | Yes | 86% | I am more informed about the Illinois Student Learning Standards in my own discipline |
| | Feel More Confident | 10% | |
| | Somewhat | 2% | |
| | No | 2% | |

| | | | |
|-------------------|---------------------|-----|---|
| Question 7 | Yes | 72% | I am more informed about the Illinois Student Learning Standards in other disciplines, e.g. mathematics, science, language arts, and the national technology standards. |
| | Feel More Confident | 22% | |
| | Somewhat | 4% | |
| | No | 2% | |

| | | | |
|-------------------|---------------------|-----|---|
| Question 8 | Yes | 78% | The NSF has prepared me to use a wider variety of teaching strategies and teaching models |
| | Feel More Confident | 16% | |
| | Somewhat | 4% | |
| | No | 2% | |

| | | | |
|-------------------|---------------------|-----|---|
| Question 9 | Yes | 70% | I have learned to develop more authentic performance-based assessment(s) to measure student achievement |
| | Feel More Confident | 22% | |
| | Somewhat | 6% | |
| | No | 2% | |

| | | | |
|------------------------|---------------------|-----|---|
| 1st Question 10 | Yes | 73% | I have learned to develop rubrics for assessing student performance |
| | Feel More Confident | 16% | |
| | Somewhat | 7% | |
| | No | 4% | |

| | | | |
|------------------------|---------------------|-----|---|
| 2nd Question 10 | Yes | 70% | The NSF project has increased my ability and potential to incorporate real world problems and applications, and/or to organize learning around real world or career themes, connection the classroom to the world of work |
| | Feel More Confident | 26% | |
| | Somewhat | 2% | |
| | No | 2% | |

Table 35.3 Program-Specific Questions (continued)

| | | | |
|--------------------|---------------------|-----|---|
| Question 11 | Yes | 80% | I have increased my ability to bring more career awareness into my curriculum |
| | Feel More Confident | 15% | |
| | Somewhat | 2% | |
| | No | 2% | |

| | | | |
|--------------------|---------------------------------|-----|---|
| Question 12 | Excellent and Extremely Helpful | 40% | My involvement with the Rock Valley College faculty has resulted in valuable professional growth that has been (circle one) |
| | Very Good and Helpful | 47% | |
| | Not as Helpful as Expected | 13% | |
| | Poor and Not Really Helpful | 0% | |

| | | | |
|--------------------|---------------------------------|-----|---|
| Question 13 | Excellent and Extremely Helpful | 61% | My involvement with the NIU faculty has resulted in valuable professional growth that has been (circle one) |
| | Very Good and Helpful | 34% | |
| | Not as Helpful as Expected | 5% | |
| | Poor and Not Really Helpful | 0% | |

| | | | |
|--------------------|---------------------|-----|---|
| Question 14 | Yes | 72% | The NSF project has expanded my teaching philosophy, enhanced my vision for my students, and expanded my potential opportunities to use more best practices in pedagogy (teaching and learning) |
| | Feel More Confident | 22% | |
| | Somewhat | 4% | |
| | No | 2% | |

Table 35.4 Program-Specific Questions (continued)

| | | | |
|--------------------|--|-----|---|
| Question 15 | *A. See the connections between levels and courses | 94% | The articulation workshop involving middle schools, high schools, RVC and NIU helped me to: |
| | *B. Understand what content should be covered at the different levels | 72% | |
| | *C. Better align my course content | 72% | |
| | *D. Better understand how community college or university students are assessed on knowledge or concept attainment | 49% | |
| | *E. Better understand how the community college or university uses technology in teaching and learning | 62% | |
| | *F. Better understand how community college and university courses are taught | 66% | |
| | *G. Better understand how to guide students from high school to the community college and on to the university (2+2+2) | 49% | |
| | *H. Better understand the community college and university admissions for high school students | 62% | |
| | *I. Others | 6% | |

| | | | |
|--------------------|--|-----|--|
| Question 16 | *A. Understand the career opportunities directly related to my discipline | 53% | The workshop on Ed Paths to Careers at RVC helped me to: |
| | *B. Increased my knowledge of careers so that I can better inform my students | 60% | |
| | *C. Understand the levels of math, science, English and other disciplines that are required for particular career tracks | 66% | |

| | | | |
|--------------------|--|-----|--|
| Question 17 | *A. Understand the career opportunities directly related to my discipline | 98% | The workshop on Ed Paths to Careers at NIU helped me to: |
| | *B. Increased my knowledge of careers so that I can better inform my students | 60% | |
| | *C. Understand the levels of math, science, English and other disciplines that are required for particular career tracks | 68% | |

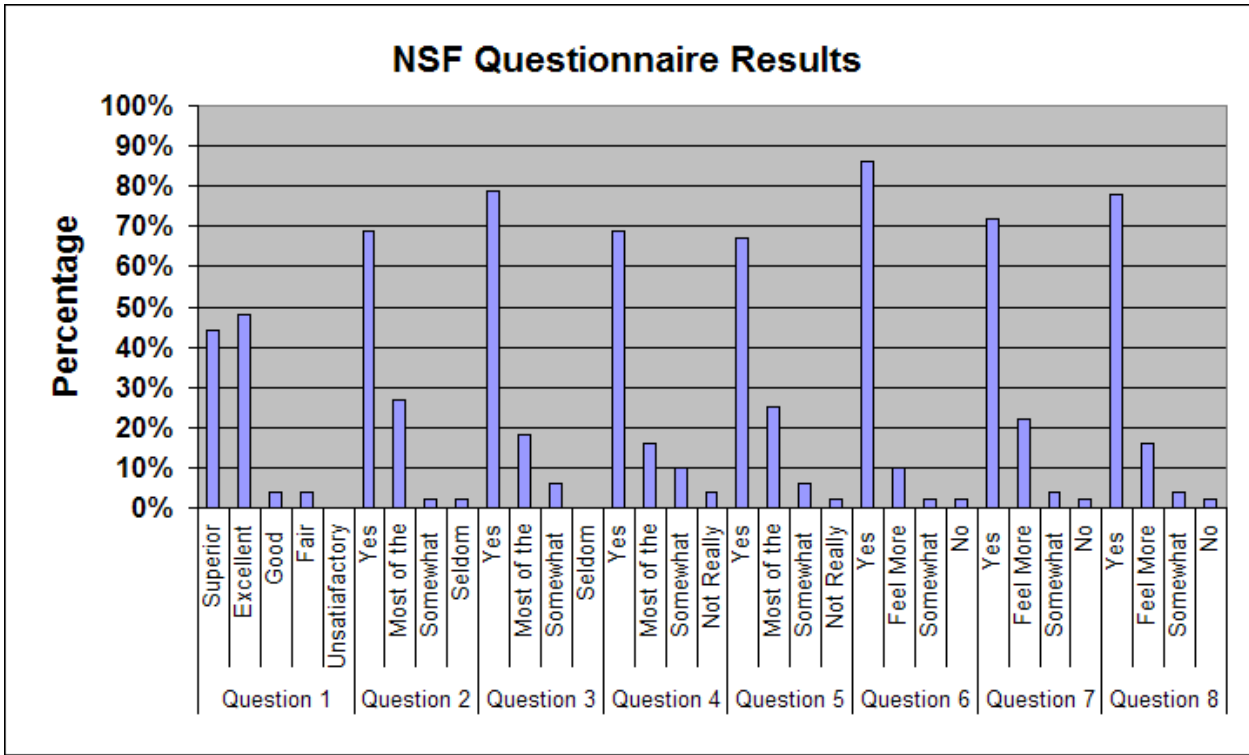


Figure 35.1 NSF Questionnaire Results

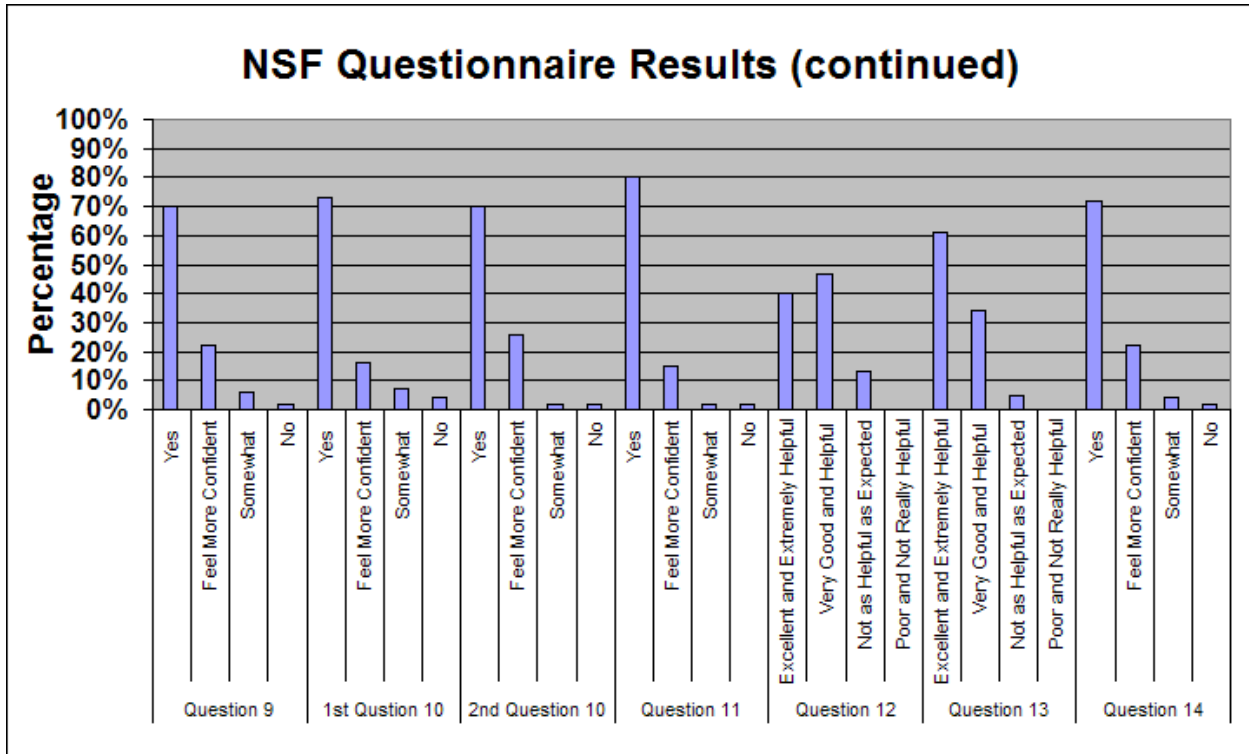


Figure 35.2 NSF Questionnaire Results

Evaluations by Workshops and Comments Using the State-Required Form for Teacher Recertification Professional Development Events: Individual Workshop Feedback

Table 35.5 Workshop Evaluation Response

| | | | Sept '02 | | | |
|------------|--|----------------|----------------------|-----------------------|--------------------|-----------------|
| | | | Integrated Models L1 | Industry Articulation | Graphic Organizers | ICD Orientation |
| Question 1 | This activity increased my knowledge and skills in my areas of certification, endorsement or teaching assignment | Strongly Agree | 72% | 65% | 88% | 60% |
| | | Somewhat Agree | 17% | 26% | 9% | 33% |
| | | Other | 11% | 9% | 3% | 7% |
| | | | Integrated Models L1 | Industry Articulation | Graphic Organizers | ICD Orientation |
| Question 2 | The relevance of this activity to ISBE teaching standards was clear | Strongly Agree | 94% | 74% | 88% | 90% |
| | | Somewhat Agree | 6% | 9% | 3% | 10% |
| | | Other | 0% | 17% | 9% | 0% |
| | | | Integrated Models L1 | Industry Articulation | Graphic Organizers | ICD Orientation |
| Question 3 | It was clear that the activity was presented by persons with education and experience in the subject matter. | Strongly Agree | 94% | 92% | 88% | 87% |
| | | Somewhat Agree | 6% | 4% | 6% | 13% |
| | | Other | 0% | 4% | 6% | 0% |
| | | | Integrated Models L1 | Industry Articulation | Graphic Organizers | ICD Orientation |
| Question 4 | The material was presented in an organized, easily understood manner | Strongly Agree | 67% | 70% | 84% | 80% |
| | | Somewhat Agree | 11% | 26% | 6% | 20% |
| | | Other | 22% | 4% | 9% | 0% |
| | | | Integrated Models L1 | Industry Articulation | Graphic Organizers | ICD Orientation |
| Question 5 | This activity included discussion, critique, or application of what was presented, observed, learned, or demonstrated. | Strongly Agree | 72% | 87% | 88% | 80% |
| | | Somewhat Agree | 22% | 9% | 6% | 20% |
| | | Other | 6% | 4% | 6% | 0% |

Table 35.6 Workshop Evaluation Response (continued)

| | | Oct '02 | | | | |
|---------------------|-------------|----------------|-----------------|--------------------|--------------------|---------------|
| Ed Paths to Careers | Share Point | HS Disc Up B/C | HS Disc Up Tech | HS Disc Up English | HS Disc Up Physics | Laser L1 & L2 |
| 60% | 92% | 100% | 100% | 100% | 100% | 79% |
| 30% | 8% | 0% | 0% | 0% | 0% | 11% |
| 10% | 0% | 0% | 0% | 0% | 0% | 10% |

| Ed Paths to Careers | Share Point | HS Disc Up B/C | HS Disc Up Tech | HS Disc Up English | HS Disc Up Physics | Laser L1 & L2 |
|---------------------|-------------|----------------|-----------------|--------------------|--------------------|---------------|
| 70% | 92% | 100% | 100% | 100% | 100% | 69% |
| 20% | 8% | 0% | 0% | 0% | 0% | 21% |
| 10% | 0% | 0% | 0% | 0% | 0% | 10% |

| Ed Paths to Careers | Share Point | HS Disc Up B/C | HS Disc Up Tech | HS Disc Up English | HS Disc Up Physics | Laser L1 & L2 |
|---------------------|-------------|----------------|-----------------|--------------------|--------------------|---------------|
| 90% | 100% | 100% | 100% | 100% | 100% | 90% |
| 5% | 0% | 0% | 0% | 0% | 0% | 5% |
| 5% | 0% | 0% | 0% | 0% | 0% | 5% |

| Ed Paths to Careers | Share Point | HS Disc Up B/C | HS Disc Up Tech | HS Disc Up English | HS Disc Up Physics | Laser L1 & L2 |
|---------------------|-------------|----------------|-----------------|--------------------|--------------------|---------------|
| 80% | 92% | 100% | 100% | 100% | 100% | 85% |
| 10% | 8% | 0% | 0% | 0% | 0% | 5% |
| 10% | 0% | 0% | 0% | 0% | 0% | 10% |

| Ed Paths to Careers | Share Point | HS Disc Up B/C | HS Disc Up Tech | HS Disc Up English | HS Disc Up Physics | Laser L1 & L2 |
|---------------------|-------------|----------------|-----------------|--------------------|--------------------|---------------|
| 65% | 100% | 100% | 100% | 100% | 100% | 90% |
| 30% | 0% | 0% | 0% | 0% | 0% | 5% |
| 5% | 0% | 0% | 0% | 0% | 0% | 5% |

Table 35.7 Workshop Evaluation Response (continued)

Nov '02

| Elec Port L2 | Share Point VSP | Ed Paths to Career L1 | Elec Port L2 | HS Disc Up L2 B/C | HS Disc Up L2 Tech | HS Disc Up L2 Physics |
|--------------|-----------------|-----------------------|--------------|-------------------|--------------------|-----------------------|
| 76% | 91% | 68% | 76% | 100% | 100% | 100% |
| 21% | 0% | 32% | 12% | 0% | 0% | 0% |
| 3% | 9% | 0% | 12% | 0% | 0% | 0% |

| Elec Port L2 | Share Point VSP | Ed Paths to Career L1 | Elec Port L2 | HS Disc Up L2 B/C | HS Disc Up L2 Tech | HS Disc Up L2 Physics |
|--------------|-----------------|-----------------------|--------------|-------------------|--------------------|-----------------------|
| 86% | 91% | 72% | 68% | 100% | 100% | 100% |
| 10% | 0% | 23% | 16% | 0% | 0% | 0% |
| 4% | 9% | 5% | 16% | 0% | 0% | 0% |

| Elec Port L2 | Share Point VSP | Ed Paths to Career L1 | Elec Port L2 | HS Disc Up L2 B/C | HS Disc Up L2 Tech | HS Disc Up L2 Physics |
|--------------|-----------------|-----------------------|--------------|-------------------|--------------------|-----------------------|
| 90% | 91% | 96% | 80% | 100% | 100% | 100% |
| 7% | 0% | 4% | 12% | 0% | 0% | 0% |
| 3% | 9% | 0% | 8% | 0% | 0% | 0% |

| Elec Port L2 | Share Point VSP | Ed Paths to Career L1 | Elec Port L2 | HS Disc Up L2 B/C | HS Disc Up L2 Tech | HS Disc Up L2 Physics |
|--------------|-----------------|-----------------------|--------------|-------------------|--------------------|-----------------------|
| 80% | 91% | 77% | 68% | 100% | 100% | 100% |
| 10% | 0% | 18% | 24% | 0% | 0% | 0% |
| 10% | 9% | 5% | 8% | 0% | 0% | 0% |

| Elec Port L2 | Share Point VSP | Ed Paths to Career L1 | Elec Port L2 | HS Disc Up L2 B/C | HS Disc Up L2 Tech | HS Disc Up L2 Physics |
|--------------|-----------------|-----------------------|--------------|-------------------|--------------------|-----------------------|
| 83% | 91% | 73% | 76% | 100% | 100% | 100% |
| 14% | 0% | 27% | 16% | 0% | 0% | 0% |
| 3% | 9% | 0% | 8% | 0% | 0% | 0% |

Table 35.8 Workshop Evaluation Response (continued)

| | | Dec '02 | Jan '03 | | | |
|-------------|-------------|-------------------|------------------|--------------------|--------------------|-------------|
| GIS L1 & L2 | GIS L1 & L2 | GIS (GPS) L1 & L2 | Agro Innovations | ICD Writing Models | Share Point L1& L2 | Mod Writing |
| 59% | 68% | 77% | 100% | 84% | 76% | 81% |
| 14% | 16% | 14% | 0% | 14% | 21% | 14% |
| 29% | 15% | 9% | 0% | 2% | 3% | 5% |

| GIS L1 & L2 | GIS L1 & L2 | GIS (GPS) L1 & L2 | Agro Innovations | ICD Writing Models | Share Point L1& L2 | Mod Writing |
|-------------|-------------|-------------------|------------------|--------------------|--------------------|-------------|
| 50% | 53% | 68% | 100% | 88% | 76% | 88% |
| 32% | 16% | 18% | 0% | 12% | 17% | 12% |
| 29% | 31% | 14% | 0% | 0% | 7% | 0% |

| GIS L1 & L2 | GIS L1 & L2 | GIS (GPS) L1 & L2 | Agro Innovations | ICD Writing Models | Share Point L1& L2 | Mod Writing |
|-------------|-------------|-------------------|------------------|--------------------|--------------------|-------------|
| 68% | 74% | 77% | 100% | 92% | 93% | 83% |
| 14% | 11% | 14% | 0% | 8% | 7% | 15% |
| 18% | 16% | 9% | 0% | 0% | 0% | 2% |

| GIS L1 & L2 | GIS L1 & L2 | GIS (GPS) L1 & L2 | Agro Innovations | ICD Writing Models | Share Point L1& L2 | Mod Writing |
|-------------|-------------|-------------------|------------------|--------------------|--------------------|-------------|
| 32% | 58% | 73% | 100% | 78% | 93% | 83% |
| 27% | 5% | 14% | 0% | 20% | 7% | 7% |
| 41% | 37% | 13% | 0% | 2% | 0% | 10% |

| GIS L1 & L2 | GIS L1 & L2 | GIS (GPS) L1 & L2 | Agro Innovations | ICD Writing Models | Share Point L1& L2 | Mod Writing |
|-------------|-------------|-------------------|------------------|--------------------|--------------------|-------------|
| 59% | 53% | 68% | 88% | 88% | 93% | 78% |
| 9% | 21% | 23% | 0% | 10% | 7% | 12% |
| 32% | 26% | 9% | 12% | 2% | 0% | 10% |

Table 35.9 Workshop Evaluation Response (continued)

Feb '03

| MS Disc Up Math | MS Disc Up B/C | MS Disc Up English | Brain Research | Green Chem L2 | Teach Models L1 | MS Disc Up Geology |
|-----------------|----------------|--------------------|----------------|---------------|-----------------|--------------------|
| 0% | 100% | 100% | 95% | 100% | 100% | 100% |
| 33% | 0% | 0% | 0% | 0% | 0% | 0% |
| 66% | 0% | 0% | 5% | 0% | 0% | 0% |

| MS Disc Up Math | MS Disc Up B/C | MS Disc Up English | Brain Research | Green Chem L2 | Teach Models L1 | MS Disc Up Geology |
|-----------------|----------------|--------------------|----------------|---------------|-----------------|--------------------|
| 0% | 100% | 100% | 95% | 100% | 100% | 100% |
| 33% | 0% | 0% | 0% | 0% | 0% | 0% |
| 66% | 0% | 0% | 5% | 0% | 0% | 0% |

| MS Disc Up Math | MS Disc Up B/C | MS Disc Up English | Brain Research | Green Chem L2 | Teach Models L1 | MS Disc Up Geology |
|-----------------|----------------|--------------------|----------------|---------------|-----------------|--------------------|
| 100% | 100% | 100% | 95% | 100% | 100% | 100% |
| 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| 0% | 0% | 0% | 5% | 0% | 0% | 0% |

| MS Disc Up Math | MS Disc Up B/C | MS Disc Up English | Brain Research | Green Chem L2 | Teach Models L1 | MS Disc Up Geology |
|-----------------|----------------|--------------------|----------------|---------------|-----------------|--------------------|
| 100% | 100% | 100% | 95% | 100% | 100% | 100% |
| 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| 0% | 0% | 0% | 5% | 0% | 0% | 0% |

| MS Disc Up Math | MS Disc Up B/C | MS Disc Up English | Brain Research | Green Chem L2 | Teach Models L1 | MS Disc Up Geology |
|-----------------|----------------|--------------------|----------------|---------------|-----------------|--------------------|
| 100% | 100% | 100% | 95% | 100% | 100% | 100% |
| 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| 0% | 0% | 0% | 5% | 0% | 0% | 0% |

Table 35.10 Workshop Evaluation Response (continued)

| MS Disc Up English | MS Disc Up Math | Cooperative Learning | Electronic Portf | HS Disc Up Bio | HS Disc Up English | Action Research |
|--------------------|-----------------|----------------------|------------------|----------------|--------------------|-----------------|
| 100% | 67% | 73% | 96% | 100% | 100% | 100% |
| 0% | 33% | 20% | 4% | 0% | 0% | 0% |
| 0% | 0% | 7% | 0% | 0% | 0% | 0% |

| MS Disc Up English | MS Disc Up Math | Cooperative Learning | Electronic Portf | HS Disc Up Bio | HS Disc Up English | Action Research |
|--------------------|-----------------|----------------------|------------------|----------------|--------------------|-----------------|
| 100% | 33% | 73% | 86% | 100% | 100% | 100% |
| 0% | 33% | 14% | 14% | 0% | 0% | 0% |
| 0% | 33% | 13% | 0% | 0% | 0% | 0% |

| MS Disc Up English | MS Disc Up Math | Cooperative Learning | Electronic Portf | HS Disc Up Bio | HS Disc Up English | Action Research |
|--------------------|-----------------|----------------------|------------------|----------------|--------------------|-----------------|
| 100% | 100% | 87% | 96% | 100% | 100% | 100% |
| 0% | 0% | 13% | 4% | 0% | 0% | 0% |
| 0% | 0% | 0% | 0% | 0% | 0% | 0% |

| MS Disc Up English | MS Disc Up Math | Cooperative Learning | Electronic Portf | HS Disc Up Bio | HS Disc Up English | Action Research |
|--------------------|-----------------|----------------------|------------------|----------------|--------------------|-----------------|
| 100% | 67% | 67% | 96% | 100% | 100% | 100% |
| 0% | 33% | 27% | 4% | 0% | 0% | 0% |
| 0% | 0% | 7% | 0% | 0% | 0% | 0% |

| MS Disc Up English | MS Disc Up Math | Cooperative Learning | Electronic Portf | HS Disc Up Bio | HS Disc Up English | Action Research |
|--------------------|-----------------|----------------------|------------------|----------------|--------------------|-----------------|
| 100% | 33% | 67% | 96% | 100% | 100% | 100% |
| 0% | 67% | 27% | 4% | 0% | 0% | 0% |
| 0% | 0% | 7% | 0% | 0% | 0% | 0% |

Table 35.11 Workshop Evaluation Response (continued)

Mar '03

| CAD | CAD | Mod Writing | Green Chem | Teach Models | WebQuests | Student Perf Asses |
|-----|-----|-------------|------------|--------------|-----------|--------------------|
| 67% | 75% | 81% | 100% | 93% | 100% | 88% |
| 22% | 13% | 13% | 0% | 7% | 0% | 6% |
| 11% | 12% | 6% | 0% | 0% | 0% | 6% |

| CAD | CAD | Mod Writing | Green Chem | Teach Models | WebQuests | Student Perf Asses |
|-----|-----|-------------|------------|--------------|-----------|--------------------|
| 89% | 88% | 91% | 100% | 100% | 95% | 88% |
| 11% | 12% | 7% | 0% | 0% | 5% | 6% |
| 0% | 0% | 2% | 0% | 0% | 0% | 6% |

| CAD | CAD | Mod Writing | Green Chem | Teach Models | WebQuests | Student Perf Asses |
|------|-----|-------------|------------|--------------|-----------|--------------------|
| 100% | 88% | 83% | 100% | 100% | 100% | 88% |
| 0% | 12% | 5% | 0% | 0% | 0% | 6% |
| 0% | 0% | 12% | 0% | 0% | 0% | 6% |

| CAD | CAD | Mod Writing | Green Chem | Teach Models | WebQuests | Student Perf Asses |
|-----|-----|-------------|------------|--------------|-----------|--------------------|
| 78% | 88% | 81% | 100% | 93% | 100% | 81% |
| 22% | 12% | 5% | 0% | 7% | 0% | 13% |
| 0% | 0% | 14% | 0% | 0% | 0% | 6% |

| CAD | CAD | Mod Writing | Green Chem | Teach Models | WebQuests | Student Perf Asses |
|------|-----|-------------|------------|--------------|-----------|--------------------|
| 100% | 88% | 86% | 100% | 93% | 100% | 88% |
| 0% | 12% | 7% | 0% | 7% | 0% | 6% |
| 0% | 0% | 7% | 0% | 0% | 0% | 6% |

Table 35.12 Workshop Evaluation Response (continued)

| | | May '03 | | June '03 | | |
|--------------------|--------------------|------------|------------|----------|--------------|-----------|
| Student Perf Asses | Student Perf Asses | Navigation | Marco Polo | Webpage | Virtual Tour | Animation |
| 100% | 89% | 71% | 100% | 89% | 95% | 93% |
| 0% | 0% | 15% | 0% | 8% | 0% | 7% |
| 0% | 11% | 14% | 0% | 4% | 5% | 0% |

| Student Perf Asses | Student Perf Asses | Navigation | Marco Polo | Webpage | Virtual Tour | Animation |
|--------------------|--------------------|------------|------------|---------|--------------|-----------|
| 100% | 89% | 57% | 100% | 81% | 95% | 93% |
| 0% | 0% | 29% | 0% | 12% | 0% | 7% |
| 0% | 11% | 14% | 0% | 8% | 5% | 0% |

| Student Perf Asses | Student Perf Asses | Navigation | Marco Polo | Webpage | Virtual Tour | Animation |
|--------------------|--------------------|------------|------------|---------|--------------|-----------|
| 100% | 89% | 93% | 100% | 92% | 95% | 100% |
| 0% | 0% | 7% | 0% | 4% | 0% | 0% |
| 0% | 11% | 0% | 0% | 4% | 5% | 0% |

| Student Perf Asses | Student Perf Asses | Navigation | Marco Polo | Webpage | Virtual Tour | Animation |
|--------------------|--------------------|------------|------------|---------|--------------|-----------|
| 100% | 83% | 64% | 94% | 89% | 95% | 100% |
| 0% | 0% | 29% | 6% | 8% | 0% | 0% |
| 0% | 17% | 7% | 0% | 4% | 5% | 0% |

| Student Perf Asses | Student Perf Asses | Navigation | Marco Polo | Webpage | Virtual Tour | Animation |
|--------------------|--------------------|------------|------------|---------|--------------|-----------|
| 100% | 89% | 57% | 94% | 89% | 95% | 100% |
| 0% | 0% | 21% | 0% | 8% | 0% | 0% |
| 0% | 11% | 21% | 6% | 4% | 5% | 0% |

Table 35.13 Workshop Evaluation Response (continued)

| Tech Help Day | Module Completion |
|---------------|-------------------|
| 96% | 88% |
| 0% | 8% |
| 4% | 4% |

| Tech Help Day | Module Completion |
|---------------|-------------------|
| 96% | 90% |
| 0% | 7% |
| 4% | 3% |

| Tech Help Day | Module Completion |
|---------------|-------------------|
| 96% | 89% |
| 0% | 3% |
| 4% | 8% |

| Tech Help Day | Module Completion |
|---------------|-------------------|
| 96% | 88% |
| 0% | 4% |
| 4% | 9% |

| Tech Help Day | Module Completion |
|---------------|-------------------|
| 96% | 90% |
| 0% | 3% |
| 4% | 7% |

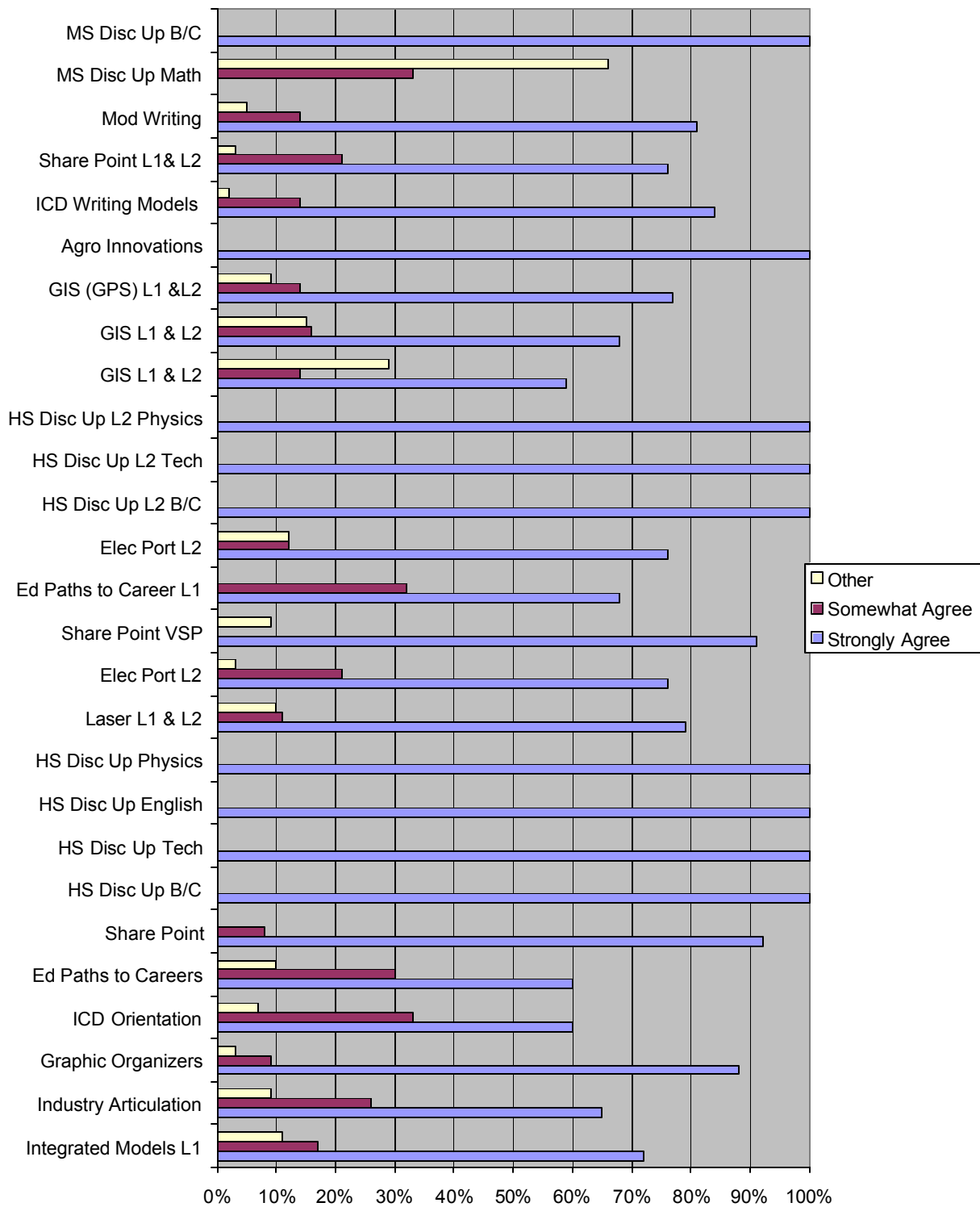


Figure 35.3 Question 1 - Increased Knowledge and Skills (part 1)

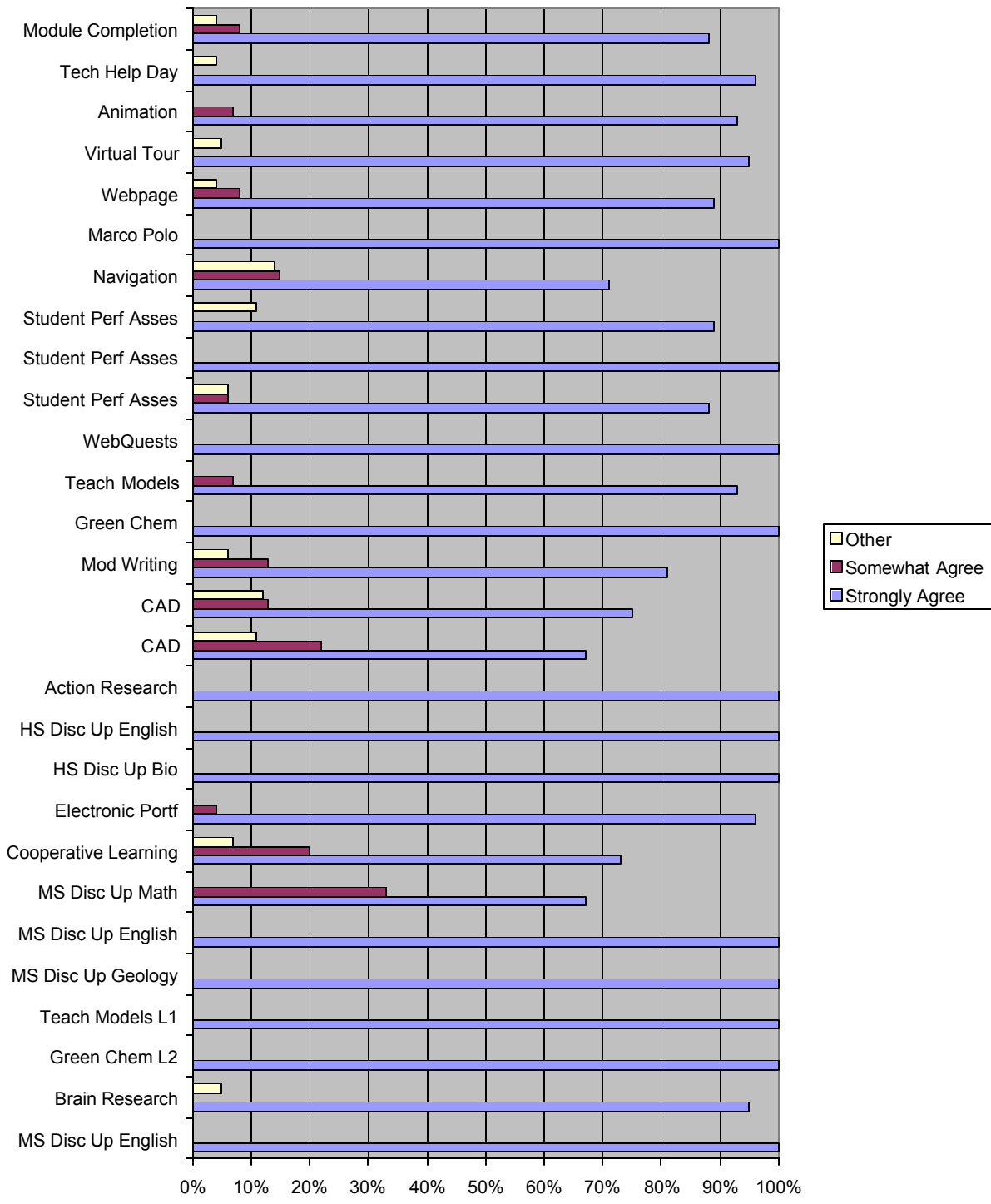


Figure 35.4 Question 1 - Increased Knowledge and Skills (part 2)

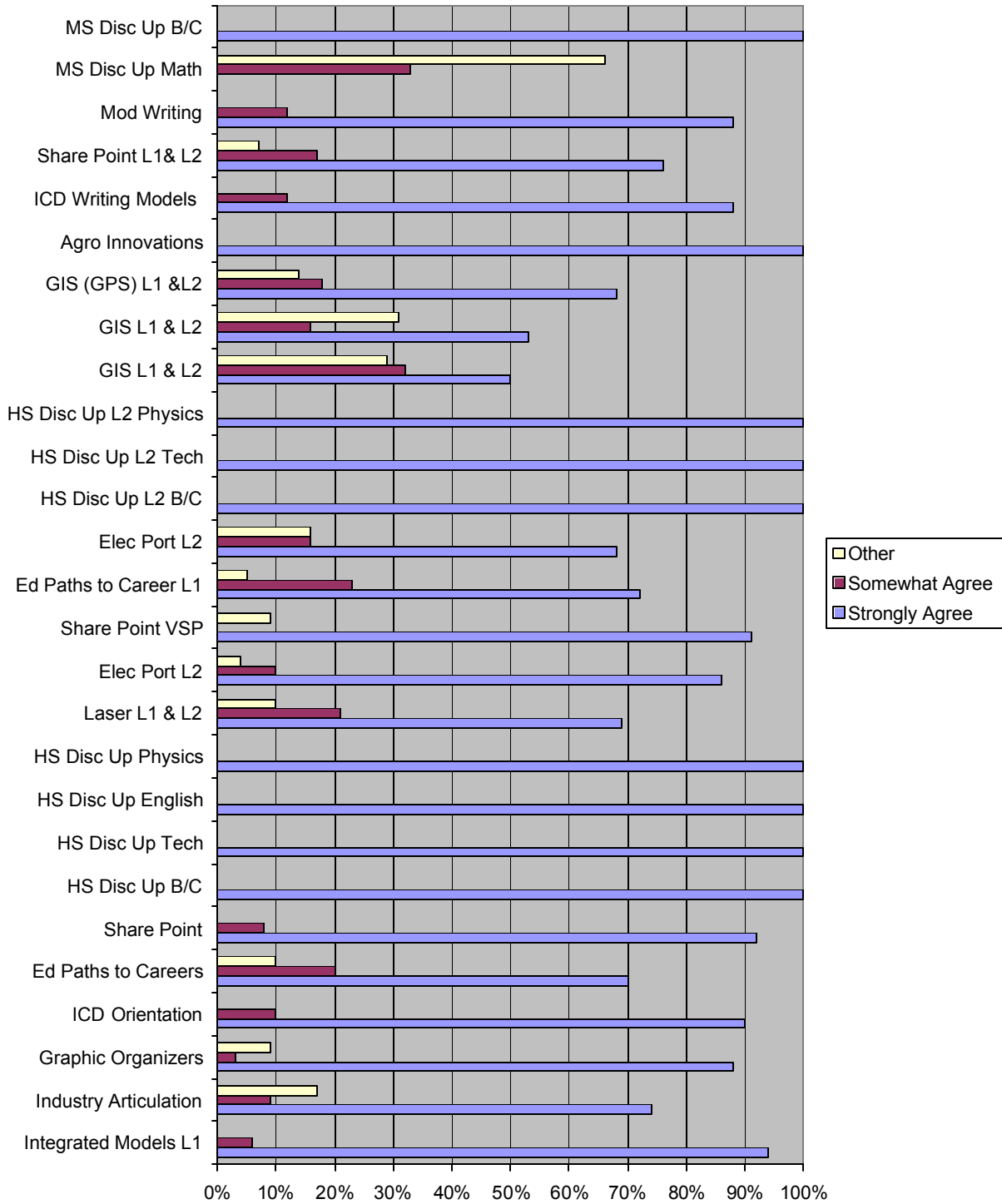


Figure 35.5 Question 2 - Relevance to Teaching Standards (part 1)

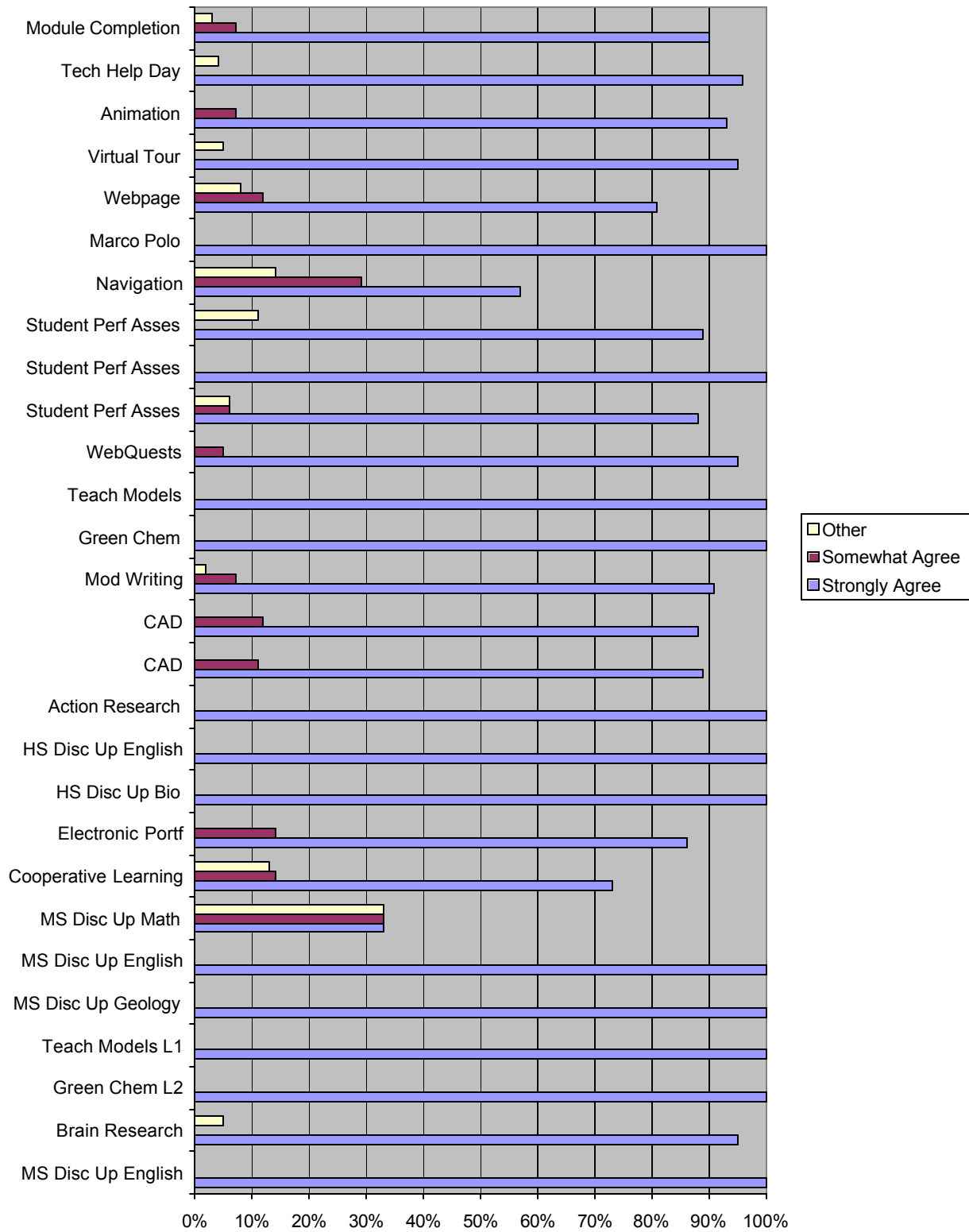


Figure 35.6 Question 2 - Relevance to Teaching Standards (part 2)

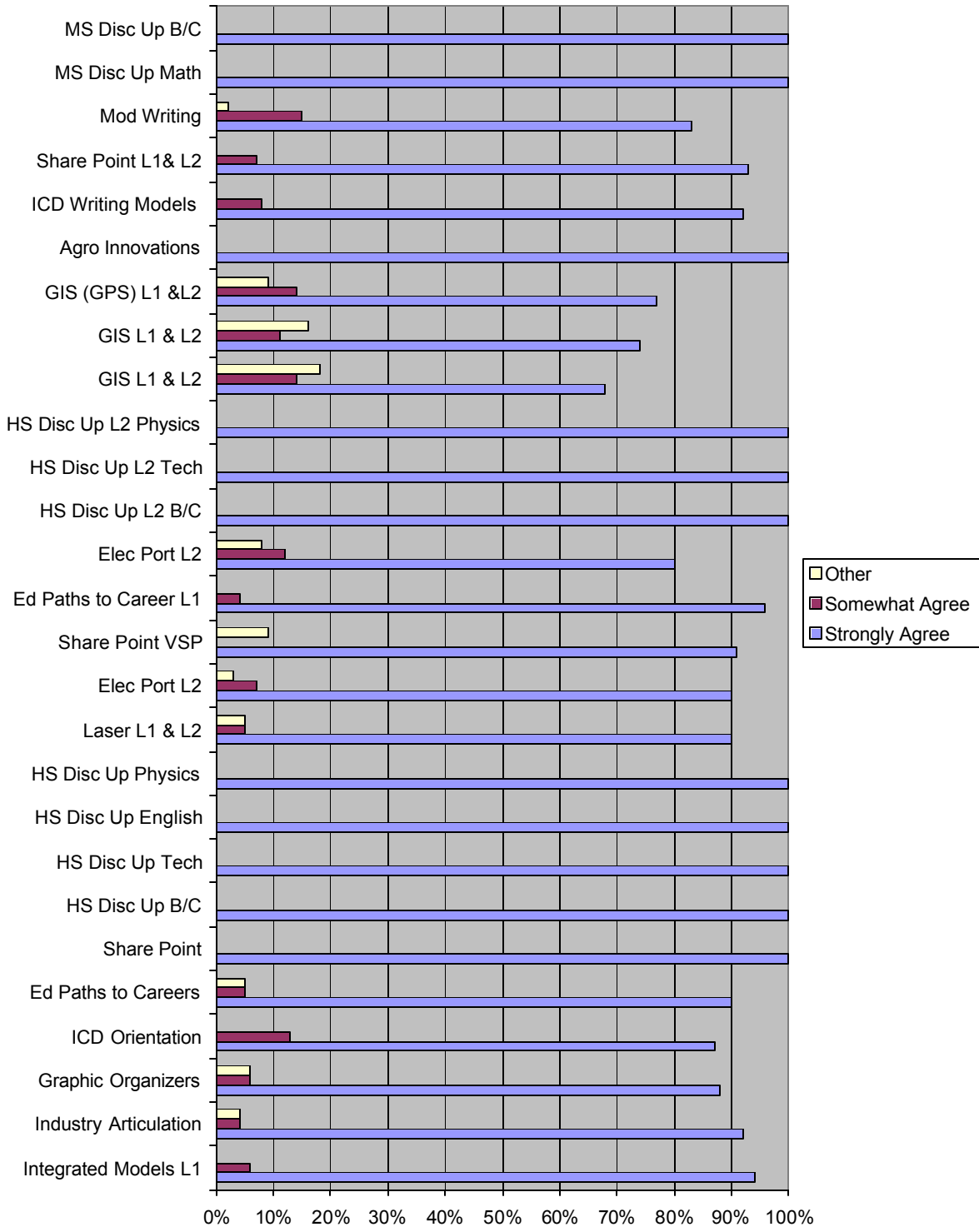


Figure 35.7 Question 3 - Presented by Experienced People (part 1)

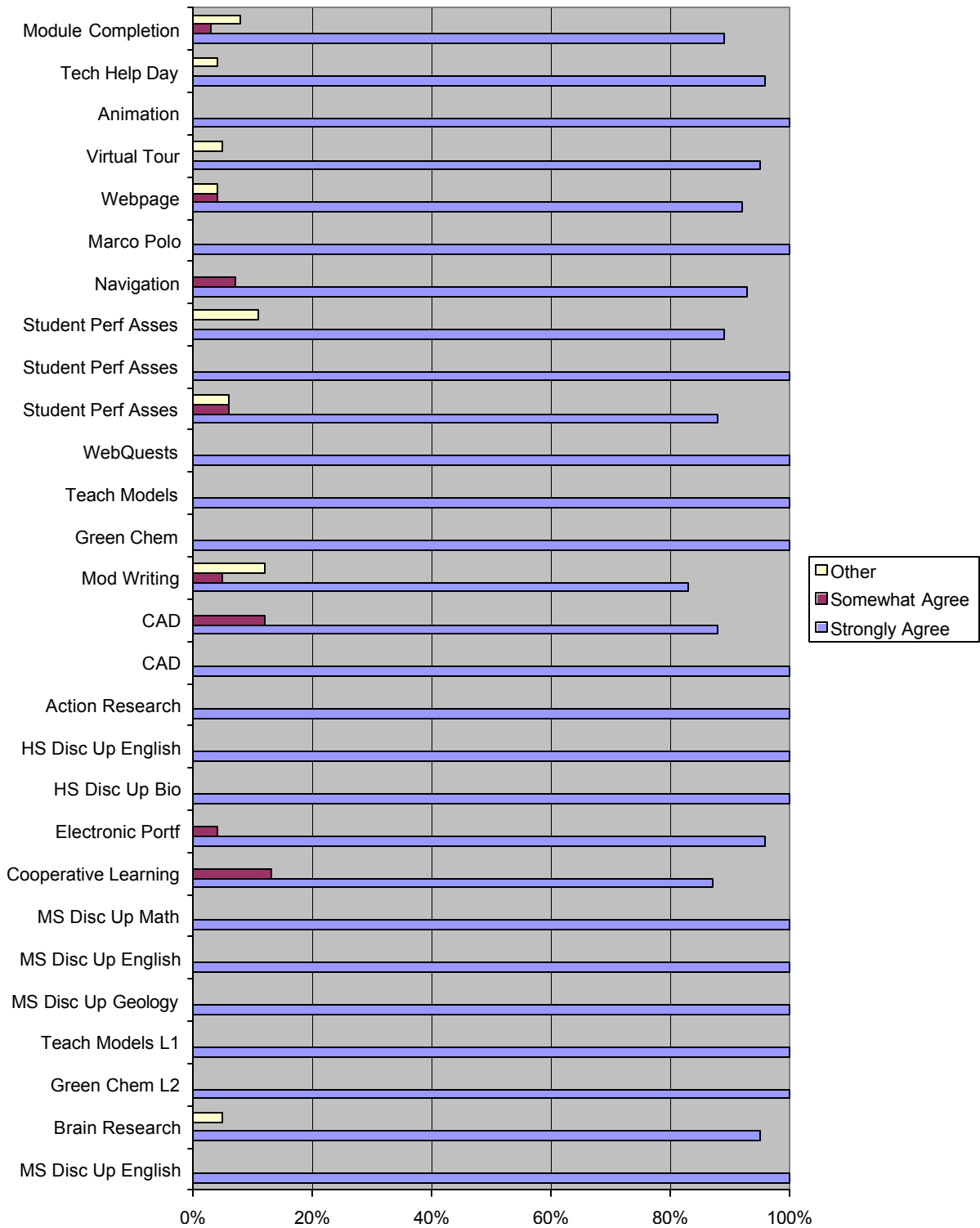


Figure 35.8 Question 3 - Presented by Experienced People (part 2)

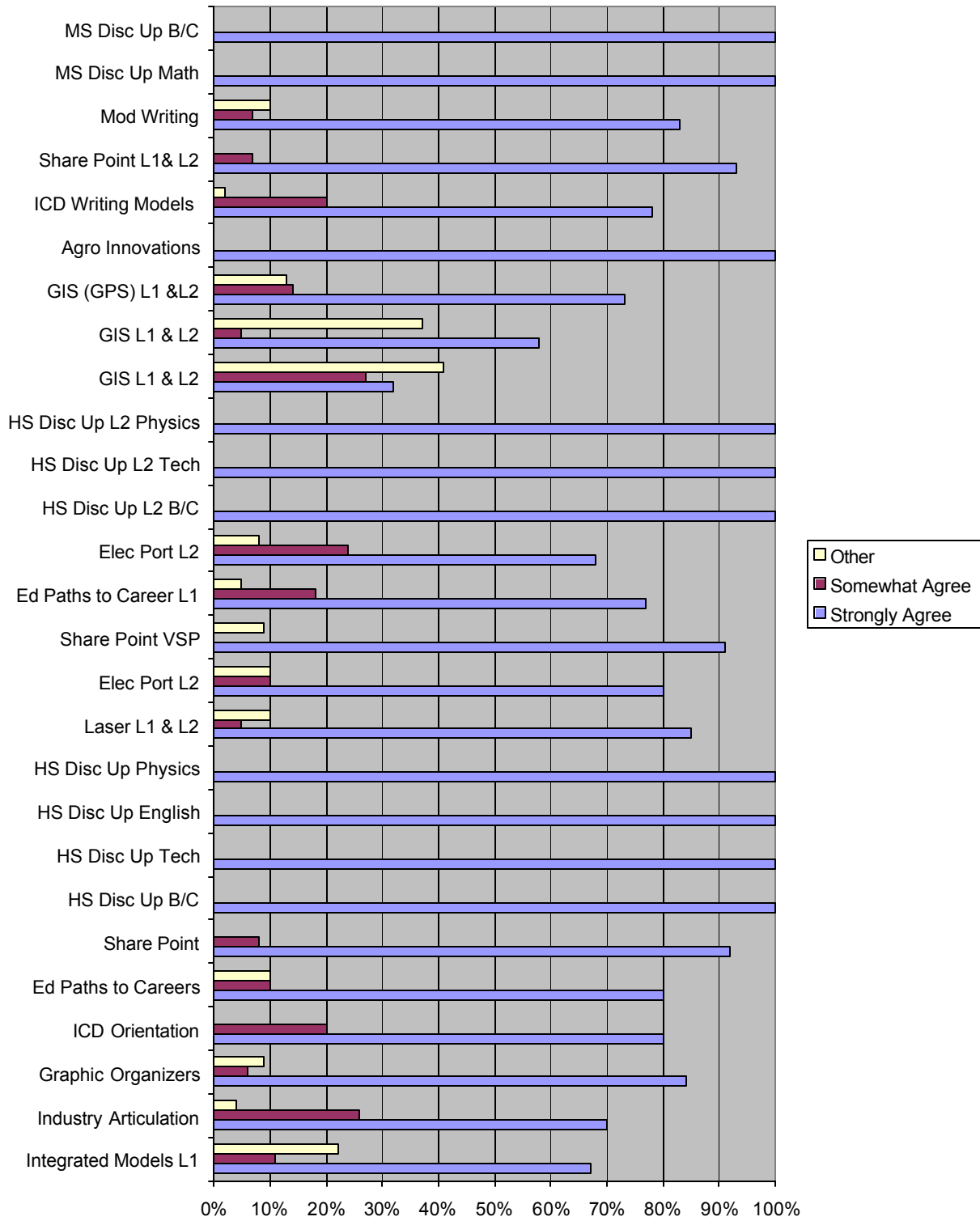


Figure 35.9 Question 4 – Organized (part 1)

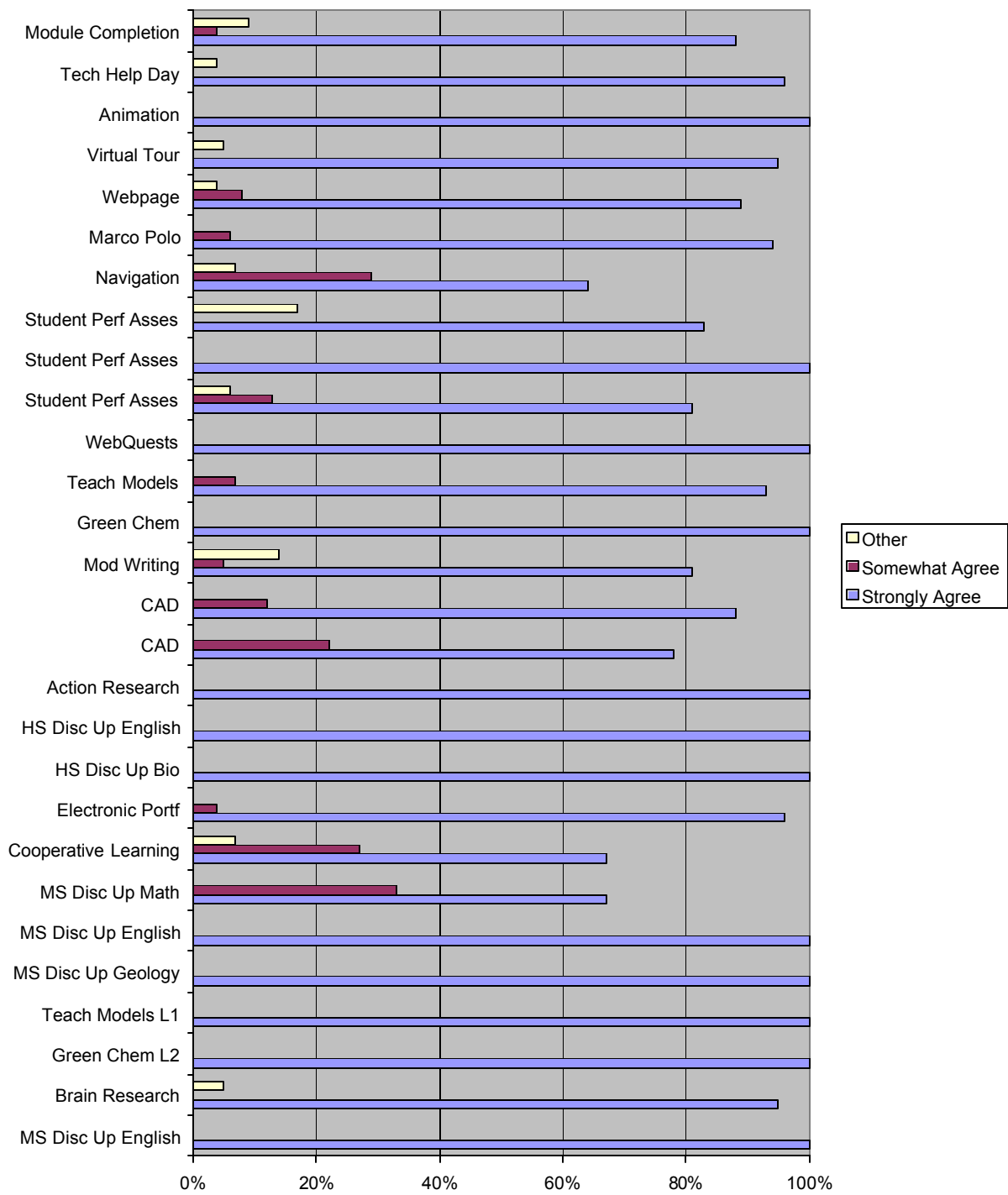


Figure 35.10 Question 4 – Organized (part 2)

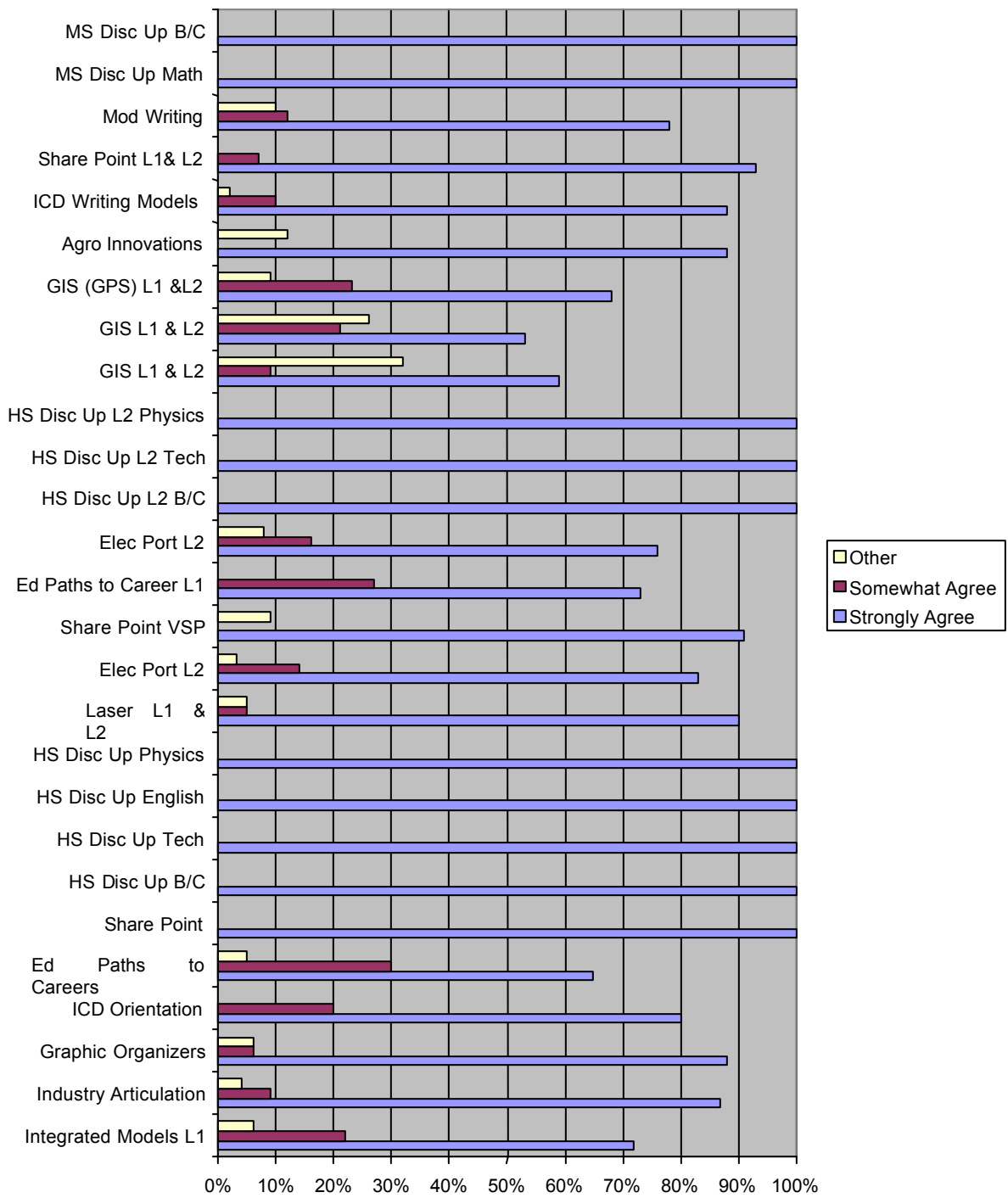


Figure 35.11 Question 5 - Application Oriented (part 1)

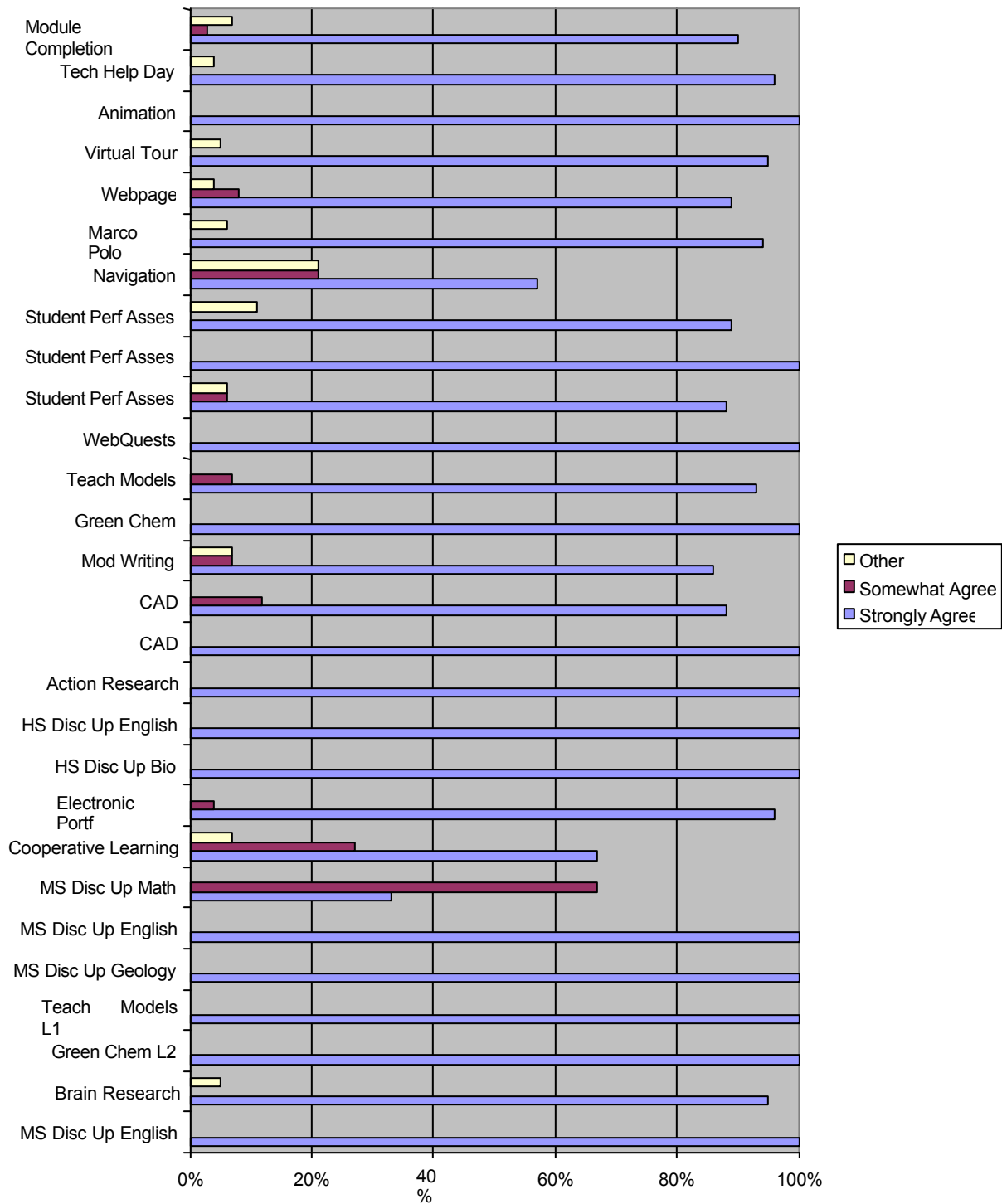


Figure 35.12 Question 5 - Application Oriented (part 2)

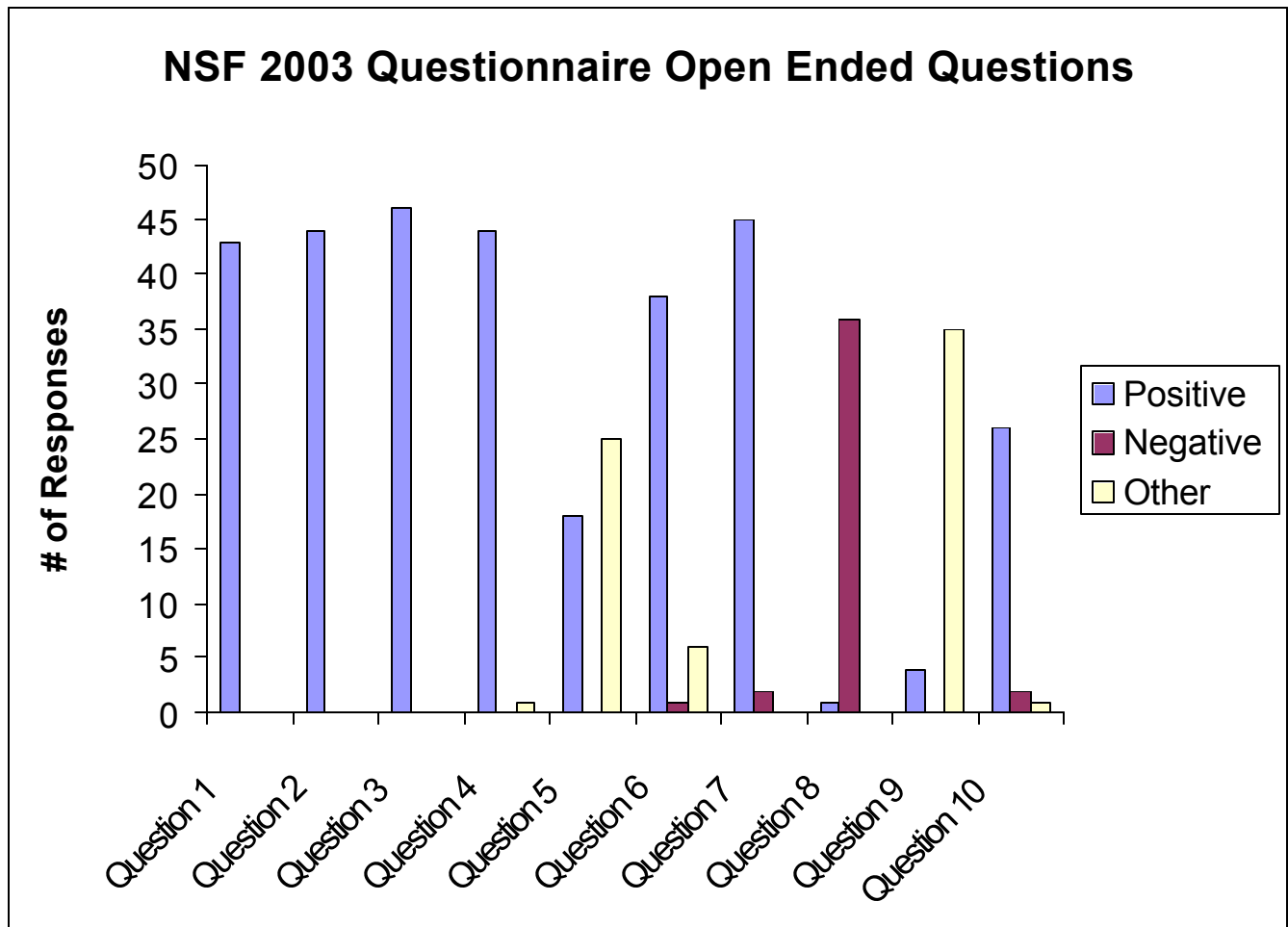


Figure 35.13 NSF 2003 Questionnaire, Open-Ended Questions and Responses

End-of-Grant Questionnaire, 2003

Open-ended questions and responses by teachers

1. What components of the NSF program had the greatest positive effect or potential to enhance your knowledge, skills, or best practices related to teaching and student learning? How has this program changed your teaching practices, or how will it change your teaching practices?

- ❖ *It has made me do things that will help me be a better teacher, and to implement the area of career education will be very helpful to the students.*
- ❖ *Learning how to use the internet more effectively, Using laptop computer - what a labor/time saver, learning about different ways of incorporating English, writing, reading, and technology.*
- ❖ *Teaching models and learning technology were the greatest.*
- ❖ *Workshops on assessment were superb, I will design lessons with student products and assessment methods in mind.*
- ❖ *I think that the technology training will have the biggest impact on my teaching.*
- ❖ *This gave me the time to consider learn and practice new technology skills. This helped me examine what I was going to teach and what was the best way to accomplish that. So really the important thing was the process.*
- ❖ *By incorporating more resources to learning, I can do a more thorough job.*
- ❖ *Introduced new ways of approaching learning styles.*
- ❖ *Use of rubrics, exposure to latest teaching/learning strategies, alternative assessments all have enhanced my classroom. Students are exposed to greater experience.*
- ❖ *The one-on-one conference with the NIU professors was the most interesting.*
- ❖ *Learning how to use Web pages and create Web pages.*
- ❖ *I enjoy working with the different disciplines in a group module.*
- ❖ *I've incorporated portfolio + authentic assessment.*

2. Describe discipline-specific enhancements to you that are a result of program participation.

- ❖ *The incorporation of technology and my comfort level.*
- ❖ *It gives me an idea to develop a lesson that has a link to the community.*
- ❖ *Greater computer literacy, ability to present material in new more interesting ways.*
- ❖ *I learned about Palm handhelds for myself and further explored them in the classroom.*
- ❖ *I am much more confident and competent to teach lessons that I have always wanted to add to my curriculum.*
- ❖ *Understand learning standards better.*
- ❖ *There will be more writing in the health ed. course.*
- ❖ *Incorporating content and individuals from the industry.*
- ❖ *GPS/GIS = science and incorporate geography.*
- ❖ *Computers in class, updated curriculum, and more worthwhile projects.*
- ❖ *Focusing my teaching more on the necessary skills for success in high school.*
- ❖ *Use of in-class Internet and rubrics.*
- ❖ *Rubrics and multiple intelligences to create lessons, making them more valuable to students.*
- ❖ *Green chemistry was very useful in all my topic areas.*

3. How has this program changed you as a teacher? Describe how being involved in this program has benefited you personally. How have you personally grown from participation in this program? Describe the program's value you to as a teaching professional.

- ❖ *I really appreciated the format structure of this module and lesson plans. These have really improved my formalized approach to teaching and classroom preparation.*
- ❖ *I have made friends and developed relationships with people not only from my school but also across the district and the community - so valuable.*
- ❖ *Helped me get better organized and various programs.*
- ❖ *Technology, new ideas in class, and new devices in my classroom.*
- ❖ *The program has enlightened and enhanced my understanding of state standards. The program developed an expansive network of supportive teachers + peers. The program has helped me become more organized + focused as a teacher.*
- ❖ *Projects, technology, higher-level thinking skills, tied to ed. standards, more interdisciplinary, more strategies.*
- ❖ *The hardware and access to the Web.*
- ❖ *More in tune with the standards techniques, with incorporating other disciplines and technology into my lessons.*
- ❖ *Made me feel more confident about "teaching," motivating students and increasing student participation. I feel more knowledgeable about the teaching profession than other teachers who have not been through the NSF program.*
- ❖ *This program has enhanced my awareness of resources and the importance of making curriculum relevant to my students. I benefited by working together as a team to complete a project. The value is immeasurable. The articulation between the different levels is essential.*
- ❖ *More open to new technological innovations; I have more confidence in my ability to use the computer. I hope to pass along my knowledge to other educators.*
- ❖ *The connections made have been the biggest "enhancement."*
- ❖ *My concept of what content to teach + how to have a multidisciplinary approach to my lessons. I also plan on utilizing my connections in the industry too strengthen my course content + the real world.*

- ❖ *It has made me realize that the lecture-note-taking form of instruction is not the be all, end all. There are many new ways of delivering instruction. Personally, I feel much more compatible with technology.*
- ❖ *Each time I have been involved with NSF, I find when I return to school, I have broadened my technique and enhanced my style of teaching. I keep adding and updating to improve. It has made me into a more knowledgeable teacher in science and in the area of technology. I have developed a closer working relationship with Barbara and we have even done team teaching with regular education and special needs students. I did not know enough to turn on a computer when I started NSF.*
- ❖ *Being involved with NSF has made me more selective of activities + lessons I choose to use in my classes. I focus more on district objectives + state standards as I plan my curriculum. I also try to use authentic learning experiences more often.*
- ❖ *Latest methods for teaching and evaluation have changed my teaching strategies; students benefit from greater variety of experience.*
- ❖ *More focus.*
- ❖ *I now am able to look at software and evaluate its practicality and usefulness for my students.*
- ❖ *I have learned how to work with other teachers.*
- ❖ *I feel this program has given me valuable insight to learning styles. My personal growth comes from the confidence gained by working with other teachers.*
- ❖ *There is no way a teacher can produce such an involved, thorough module such as this and still have time to keep up with the day-to-day duties. This provides us time to develop an exciting, engaging module. This energizes me!*
- ❖ *This program has helped me become a more passionate teacher.*
- ❖ *I've grown comfortable with computer usage. Made me realize students are "afraid" when what is being taught doesn't come easy to them.*
- ❖ *I feel that I know a lot more techniques than I did when I started. I also use many more strategies than I did before. I have grown technologically; teachers in my building ask me for computer help. I feel privileged to have been a part of this program.*
- ❖ *I see myself prepared to become a master teacher. The benefits of this program are immeasurable.*

- ❖ *I like the flexibility that the standards offer. They allow me to be creative and to have fun. If teaching were boring, I would stop. This program encourages one to step out of the box. NSF, in sum, challenges you so that you can challenge your students.*
- ❖ *This program has assisted me by keeping current professionally. I loved learning and using the Palm handhelds.*
- ❖ *Again, by forcing me to look at my discipline differently, it has had a positive impact on me as a teacher. I also have had several student teachers while in the program and it allowed me to work with them "outside the box."*
- ❖ *I am much more at ease with technology + various programs.*

4. How will what you have learned help your students learn or achieve more?

- ❖ *Use a variety of teaching styles to meet students' different learning needs.*
- ❖ *Increasing the number of practical, hands-on, and role-playing activities makes students learn more.*
- ❖ *By informing the students that our lessons are of significance to the community, students will have a better sense of belongingness or [becoming] excited.*
- ❖ *Students will learn more because they are interested in the units that we developed.*
- ❖ *Can better integrate a sequence of topics in the progression from middle school to college.*
- ❖ *I hope my students will be more motivated to learn.*
- ❖ *Students will be able to use technology and the Internet to do more effective research and projects.*
- ❖ *Exposure to wider variety of teaching models, learning strategies, multiple intelligence concepts, technology, software, and assessment.*
- ❖ *It will give them a more authentic educational experience.*
- ❖ *It will open more doors to further their understanding about technology and health.*
- ❖ *I am not driven by the state standards. Our lessons utilize technology more - I would not have had access to handhelds without this program.*

❖ *Rubrics & projects.*

5. How would you like to see this kind of project or professional development program continue?

❖ *This kind of professional development should continue. Teachers need to have opportunities to learn + enhance their own teaching styles.*

❖ *Yes it should continue just the way it is.*

❖ *It would be beneficial if the workshops + programs were available to social studies teachers as well.*

❖ *Updated workshops on computer skills. A newsletter that may include websites for specific subject matter that has been helpful to others.*

❖ *A shorter yearly update in both technology and teaching.*

❖ *Parameters should be outlined up front. Participants should select module topics in the beginning to narrow focus. I would like to see more continual collegiate-level involvement.*

❖ *Advanced workshops in "tweaking" Web pages + similar such workshops would be useful.*

❖ *Add more components and technology.*

❖ *Every teacher should take or be involved in a program like this.*

❖ *NIU profs were for the most part good.*

❖ *To be able to retake courses for pay for refresher courses.*

❖ *I would like to see this project develop more particularity on the technology aspect so we teachers can keep up with it.*

❖ *I intend to use the template in developing all three topics of my encore course in the three-year rotation.*

❖ *Network with other participants; compare and steal ideas.*

❖ *I would like it to be done in teams within each school.*

❖ *This should become a part of new teacher training.*

- ❖ *Offer this program with more functional components and with more articulation with college/university personnel.*
- ❖ *I would like to see it more usable in the current curriculum.*
- ❖ *I would like to see the program continue next year with more people involved.*
- ❖ *It would help me grow as a person and teacher.*

6. Comment about being able to participate in the program by levels or for more than one year with workshops changing each year. Is that important?

- ❖ *Networking between the levels was great. It gave chances to everyone to become a leader.*
- ❖ *This method was better, I felt more confident the second year.*
- ❖ *Switching from one day to two for questions that emerged from the first day and trying it out.*
- ❖ *Yes, this is important because it can build on the year before and then go to higher levels.*
- ❖ *Building a year at a time is good because it is enhancing but is not overwhelming.*
- ❖ *Assigning different levels is beneficial and can enter into a previous level for a good review.*
- ❖ *It is easier to work together when you already know the process.*
- ❖ *Letting me repeat workshops would have been more helpful.*
- ❖ *I understand this is the last year. It is successful, the program should continue.*
- ❖ *I only had one year, but I think that extending would be beneficial.*
- ❖ *During the second year, I felt more self-directed. I had clearer goals and my confidence was greatly enhanced.*
- ❖ *Level 1 is a bit overwhelming, but level 2 is more manageable.*
- ❖ *Professional growth is important. I benefited from levels 2, 3, etc.*
- ❖ *Yes, I have continued to climb on the tech scale of accomplishments, to the point of becoming a TEEL trainer for the district thanks to NSF.*
- ❖ *Yes - the gap between technology standards is huge.*

- ❖ *Attractive aspect.*

7. Describe the program's overall strengths.

- ❖ *Knowledgeable people leading workshops. Prepare you to experiment with new teaching methods. Books - resource materials - computer/software. Leaders/teachers helpful + approachable.*
- ❖ *Organizationwise, is an excellent idea to bring the public school, local college and NIU together; just from there, it is a combination of talent and resources both personnel and technical.*
- ❖ *Teachers improve their skills and students become more engaged.*
- ❖ *The strength is the collaboration between the university and secondary and middle schools.*
- ❖ *The program has become extremely organized and easy to implement. It covers a wide variety of education topics. Networking with other teachers throughout the district.*
- ❖ *The quality of instructors and organization is good and the program is excellent.*
- ❖ *Technology and networking with other teachers.*
- ❖ *Technology programs, computer instructions.*
- ❖ *Presenters and technology.*
- ❖ *Many different choices of classes were available. The teachers were involved and shared ideas with each other.*
- ❖ *The hardware benefit is good, but one day is not enough training.*
- ❖ *The ability to pull together the different levels of education. The information on careers. The courses taught were very well done.*
- ❖ *Having professors presenting us with the latest information and guidance. Being on the cutting edge of using the latest technology and incorporating it into my lessons. Work time with professors here to guide us.*
- ❖ *Helping teachers plan together and learn technology from patient instructors.*
- ❖ *Diverse teaching subjects, styles, and methods.*

- ❖ *Improving my technology knowledge and skills for my class content with real-life material.*
- ❖ *Great work to everyone who was involved; the instructors, professors, directors, and grant writers.*
- ❖ *the variety of activities, speakers and programs.*
- ❖ *Software and hardware available to us. Jan Jones lends great credibility + organization.*
- ❖ *technology and creation of the module.*
- ❖ *Strong, positive teachers/professors - very knowledgeable. Jan Jones - excellent, supportive administrator links to careers - this is always changing. Treating teachers as important people.*
- ❖ *overall strength in support and experience provided.*
- ❖ *the bond that formed between teachers and the instructors, solid foundation in "theory and instruction."*
- ❖ *The flexibility and opportunity to create are the strengths of the program.*
- ❖ *Everything about it was very positive with the exception of working with the NIU professors. They really had no idea how to help us and that in itself was frustrating.*
- ❖ *Technology learning and standards.*

8. Describe the program's overall weaknesses.

- ❖ *Not enough explicit linkage and integration of what we were learning to the module rubric and expectations.*
- ❖ *Most of the industry visits that were preplanned didn't relate to my field. But NSF allowed me to attend an OSITT conference that was extremely valuable.*
- ❖ *So much information crammed into each session - hard for me to absorb and retain + difficult this past year to practice, go over.*
- ❖ *Wrong focus in education.*
- ❖ *A lot of information in a short period of time. Overwhelming.*
- ❖ *During some workshops, the pace was slower than I was comfortable with.*

- ❖ *Module completion time on the clock would be better for teachers and be less stressful. It is my understanding teachers used to get more on-clock time. Basic level of computer competency before other classes would make learning at less of frustration level.*
- ❖ *No presence of building administration.*
- ❖ *Too much time expected outside of workshop.*
- ❖ *Facilitators tried to control flexibility, creativity, bliss...*
- ❖ *When working with a team, members could use more time to develop module with all of its components.*
- ❖ *Some of the communication was lacking when we had to go to the NIU campus but weren't sure exactly where to go!*
- ❖ *More involvement by administration and counselors. Trips to NIU were not always beneficial - the same thing could have been done here.*
- ❖ *The first year is confusing.*
- ❖ *There were times I needed more practice and we just ran out of time.*
- ❖ *enough time to really learn all the technology.*
- ❖ *The possibility or probability of its end.*
- ❖ *Provide us with a workshop or a day to work on our module during the middle of the year - rather than the end.*
- ❖ *It would have been nice to have a few more days for our group to get together. We tried to on our own but found it difficult.*
- ❖ *Some participants came in late repeatedly + some have not turned in modules in a timely fashion. Perhaps more monitoring is needed.*
- ❖ *I felt like aspects were continually added that we weren't previously aware of. Disorganized scheduling of industry visits. I wish I would have had a broader scope about this whole process before beginning.*
- ❖ *One workshop - lasers - was totally inappropriate to the public school system. Cost is astronomical and the additional supervision required when classes are up to 33 students is unavailable.*

- ❖ *Industry visits were not well planned (i.e., dates/times were not the same as info given to participants).*
- ❖ *Lack of individual help in learning computer skills.*
- ❖ *very intense - at end.*
- ❖ *Some of the programs + workshops had too many participants - the pace was too fast to comprehend everything.*
- ❖ *The only weakness would be not enough resources to help during technology classes.*
- ❖ *better plan - of instruction dates.*
- ❖ *It was a bit time consuming, and instructions for the module were vague until the last week, when we really figured out what we were supposed to be doing. Also workshop instructors did not always implement the practices they were teaching.*

9. How would you improve the overall program?

- ❖ *Have the module format and rubric out and referenced in each class, identifying how what we're learning fits into the introduction and the lesson plans.*
- ❖ *More time.*
- ❖ *See the completed modules at the beginning to get the big picture.*
- ❖ *Developing a program with the community - education and its industry.*
- ❖ *Keep it going. Also offer a workshop on what worked, what didn't work, how it can be changed.*
- ❖ *Increase opportunity for feedback (earlier in the process).*
- ❖ *More vegetable meals for some teachers. The food was very good for the majority of teachers. I wouldn't change overall program.*
- ❖ *Make it more curriculum- and discipline-specific.*
- ❖ *More tech experiences, extended times in learning the technologies, paid chance to take refresher courses.*
- ❖ *I thought it was great this year.*

- ❖ *Some of the district's policies make the program less than attractive. Though I take my ideas and energy everywhere I go, [it means] enthusiasm without resources.*
- ❖ *I would encourage more teachers to participate, and encourage present participants to advertise the benefits of the program. NSF provides a win-win situation for teachers and students.*
- ❖ *Schedule of distributing the classes throughout the year end and then concentrating the work at the end helped me to get my module in on time.*
- ❖ *Do it again.*
- ❖ *I really liked working on the module as I was teaching my program. This helped me have a much better module.*
- ❖ *Involve principals, counselors, superintendents.*
- ❖ *Ways to update equipment or select equipment, depending on what is needed at your school.*
- ❖ *Expand programs already presented - Dreamweaver/Flash - to learn all of the program.*
- ❖ *Scheduling is always a problem for busy people who overextend, but thanks for being so flexible!*
- ❖ *Maybe two days instead of three on assessment.*
- ❖ *More group/individual work time.*
- ❖ *Offer workshops on systems - Win NT, 98, XP, OS9, etc.*
- ❖ *I would make industry visits in the beginning relevant to the module. Have mini-deadlines for module completion set up during the school year. Have previous modules available for viewing.*
- ❖ *Shorter time and updates.*
- ❖ *It would be nice to choose our industry visits based on our module, to be able to tie all of the visits into the module, and bring the community into our classrooms.*
- ❖ *More help during class + more practice going over steps that need to be followed in order to conquer a specific skill.*
- ❖ *The industry visits should be more module specific.*
- ❖ *More opportunity for teachers to suggest workshop topics.*

- ❖ *More tech based projects. A new variety of professors, don't get rid of the old ones - just add new ones.*
- ❖ *Don't really need NIU visits, more time with WebQuest, Palm, etc. Better defined and examples of modules at the start of program.*
- ❖ *I would have different levels of technology days - beginning + advanced.*
- ❖ *At program end, require participants to present module to participants and business community.*
- ❖ *Add industry visits after module topics are set. This would make them more valuable to both parties.*
- ❖ *Let teachers have input on the scheduling.*
- ❖ *It might work to start during summer.*

10. Other Comments

- ❖ *It might work to start during summer, most of the stuff by first week of August.*
- ❖ *It was a great opportunity for me to grow as a teacher - thank you!*
- ❖ *I have enjoyed this time; learned more about teaching than in my college experiences. Thank you so much!*
- ❖ *Thank you very much for this experience - I appreciate all of the hard work that has made this program a success.*
- ❖ *I hate to see this program ending. I am very grateful special education was allowed in at the end of program. I have grown as a teacher and have become more excited to try new things with the students. This renewal is necessary for teachers. New things to try, keeps life from getting boring.*
- ❖ *This program has been an excellent opportunity and I hope that it is offered again.*
- ❖ *This was a great experience. I was so glad I could participate even though I could only do some of the sessions due to time constraints. I do hope some form of NSF might continue because I would be interested in participating.*
- ❖ *I can't use everything I encountered. I need more time to write lessons.*

- ❖ *Thank you for five positive years of learning, planning, teaming, implementing, and evaluating curriculum, students, and/or myself.*
- ❖ *I grew as a teacher and I made new friends. I learned new things and I shared new experiences. This has been only a "win-win" experience for me. I hope Jule and associates will continue this experience to improve all teachers to become "masters."*
- ❖ *I'll miss you all. Take care and great four years. Thanks.*
- ❖ *NSF has only improved, I have been involved for three years. The money is not as much an incentive as the knowledge, the software, hardware, + dedication of people involved.*
- ❖ *Good job. Great program. Bring it next year.*
- ❖ *It was a great opportunity, Thank You!*
- ❖ *This was a lot more complex and involved than I ever imagined. Offering extensions and refresher courses on the technology would be very beneficial. Thank you for the opportunities offered.*
- ❖ *Thank you so very much for this wonderful opportunity. Because of the love I have developed for writing curriculum, I have begun my quest for a PhD in education with specific learning in curriculum.*
- ❖ *This class opened a whole new universe to me, which will be transferred to my students. I will no longer be constrained by "text material or budgets."*
- ❖ *Keep up the good work.*
- ❖ *I enjoyed this workshop. The second year was better than the first only because I knew what I was doing this year.*
- ❖ *Perhaps a "rubric" of the final project could be pointed out early on. Several workshops were refreshers for me and affirmed what I've already been doing.*
- ❖ *Scatter the Saturday schedules all throughout the year, twice a month, not one after the other.*