



FINAL EVALUATION REPORT

for the

OREGON SCHOOL LIBRARY INFORMATION
SYSTEM

2001-2002 TLCF PROJECT OF STATEWIDE SIGNIFICANCE

Submitted to:

OSLIS Steering Committee

October 2002

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PART 1. INTRODUCTION AND BACKGROUND

Purpose and Rationale

The purpose of this evaluation was to determine the success of the 2001-2002 OSLIS project in achieving its goals of providing access to, and training in, the use of EBSCO on-line databases and value-added curriculum materials on the OSLIS website. These goals were developed to support the purpose of the TLCF program: to assist schools in using technology to improve the achievement of all students in the various content areas.

Prior to receiving funding through the 2001-2002 TLCF Project of Statewide Significance, OSLIS had received funding on a pilot basis through LSTA funds from the Oregon State Library (1998-1999) as well as two TLCF Projects of Statewide Significance in 1999-2000 and again in 2000-2001.

In past TLCF projects the primary vehicle used by OSLIS to achieve the goal of the TLCF program was intensive training and ongoing continued professional development for library media specialists focusing on: 1) collaborating with teachers; 2) providing students and teachers instruction on the use of information technology and key information literacy skills; and 3) using online resources.

Through multiple replications of this project design a fairly consistent pattern has emerged regarding implementation and outcomes for teachers and students. This pattern demonstrated fairly strong and direct links between:

- Professional development training for Library media Specialists (LMSs);
 - Access to resources (both EBSCO and OSLIS);
 - Student and teacher instruction in information literacy skills;
 - Collaboration between LMSs and teachers to design research projects to best take advantage of these resources;
 - Higher levels of information literacy skills; and,
 - Improved outcomes for students in classroom work.
-
- Further, while no direct *causal links* can be established through previous evaluations, there has been a *positive correlation* between participation in OSLIS projects and improved performance on statewide assessments.

For this project, however, the primary vehicle for achieving the TLCF goal has been statewide awareness and basic level skill training for teachers, library media specialists, library aides, administrators and others on how to integrate the online databases (EBSCO) and curriculum resources (OSLIS) into the teaching and learning process. This professional development initiative included not only traditional workshop training through workshops and interactive video connections provided by many different individuals and organizations, but also a help desk and other “just-in-time” opportunities through tutorials and curriculum support materials on the OSLIS web site.

A Caution

A major difference between the 2001-2002 TLCF Project of Statewide Significance and previous OSLIS projects has been one of breadth of training across the state versus depth, follow-up and the other financial and material support to facilitate collaboration to enhance information literacy.

To a great extent, the goals of this project have been to provide access to, awareness of, and basic training around the use of OSLIS and EBSCO resources in: 1) schools not yet taking advantage of these resources; 2) high poverty schools; and, 3) schools not having a Library Media Specialist; and, 4) to generate enough sense of value in the EBSCO resources to warrant districts to collaborate to purchase a statewide license for the 2002-2003 school year.

- *This project has not incorporated the intensive interventions of previous TLCF projects to directly impact teachers and students.*

Evaluation Questions - Indicators of Project Success

The evaluation of the project was conducted on two levels: a broad statewide level, and at the school level with a sample of *new users*. Evaluation questions fell into four categories including:

Training Equity/Breadth

- Do professional development activities target high poverty schools?
- Do professional development activities target new users?

Training Effectiveness

- Are participants satisfied with the content, format, quality, and likely impact of the professional development activities?
- Do participants gain valuable and usable knowledge and skills through these activities?
- Do participants implement the knowledge and skills they acquire through these professional development activities with other staff and students?

OSLIS/EBSCO Resource Use and Value

- Do students and staff use the online resources made available through OSLIS?
- Do schools collaborate to purchase a statewide EBSCO license for the 2002-2003 school year?

Outcomes

- Do students and staff exhibit higher levels of information literacy skills?
- Does student performance improve on classroom research assignments?
- Does student performance improve over time in OSLIS schools on statewide assessments?

The evaluation employed a series of workshop satisfaction surveys with participants. A sample of new OSLIS users was selected for more in-depth follow-up evaluation and data collection. Seven major data sources/instruments will be employed in this evaluation including

1. Past and present Oregon school participation lists in OSLIS projects;
2. Participant training satisfaction and knowledge acquisition evaluation forms;
3. A participant follow-up implementation survey;
4. Online product usage statistics and OSLIS website activity statistics;
5. A teacher satisfaction and student learning survey;
6. Existing demographic databases available from ODE and OSLIS; and,
7. Oregon statewide assessment results.

Data Analysis

The combination of process and outcome indicators and the use of both qualitative and quantitative data necessitate a variety of analytic methodologies. Primary among these is the use of simple descriptive statistics, content analyses, and tests of statistical significance.

Limitations

Several limitations to this evaluation are worth noting.

First, the lack of a clear, strong, and unique intervention makes outcome evaluation problematic. Short-term awareness and basic knowledge/skill development workshops are known to be relatively ineffective in bringing about sustained change in practice leading to improved outcomes for teachers and students. The underlying “logic model” for student and teacher outcomes that has both rational and empirical supports from previous OSLIS projects is not fully present in this project.

Second, in previous OSLIS projects, participation in follow-up evaluation activities was a condition of project participation. Thus follow-up implementation and impact evaluation data were readily available from participants. This was not the case in this project. Participants attending trainings were asked for permission to contact them at a later date to provide follow-up evaluation data. Further, once contacted, they still had the right/option of not responding. Thus, only a small portion of individuals attending trainings gave us permission to contact them at a later date and only a portion of these individuals actually responded to follow-up evaluation efforts. As a result, follow-up implementation and impact data are limited.

PART 2. OREGON SCHOOLS PARTICIPATING IN PAST OSLIS PROJECTS

To answer questions regarding how training provided by OSLIS through this year's TLCF grant focuses on high poverty schools and schools not previously participating in OSLIS sponsored trainings, an historical record of schools participating in OSLIS projects is required.

In 1998 OSLIS was established with a grant from the Oregon State Library through the Library Services Technology Act (LSTA) funds. Through these funds the OSLIS website was developed, on-line databases were purchased and six middle and high schools piloted these materials to improve information literacy skills with teachers and students. This initial pilot was replicated with an additional 12 middle and high schools. A second pilot – including additional website development and online databases/resources - was conducted at the elementary level with 10 schools from around the state.

Prior to the first TLCF Project of Statewide Significance, then, OSLIS had worked extensively in 28 schools distributed around the state. Of these, 13 were high schools, 5 were middle schools, 9 were K-5 elementary schools and one was a K-8 school. All of these schools had strong Library Media Specialists as a condition of participation.

With the first TLCF grant in 1999-2000, an additional 83 middle and high schools participated in intensive training, follow-up and mentoring to provide information literacy skill training to teachers and students in their schools and to make use of the on-line databases purchased by OSLIS and the use of the value-added curriculum materials available on the OSLIS website.

The second TLCF grant in 2000-2001 was open to all levels of schooling and focused on collaborative projects between Library Media Specialists and teachers. A total of 50 new schools participated in the second TLCF grant, including 24 elementary schools, 7 middle schools, 13 high schools and six multi-level schools (e.g., K-12, K-8, 7-12).

In addition to the intensive training that took place through the TLCF grant, OSLIS co-sponsored trainings with representatives of EBSCO in the spring of 2001. These training sessions were held around the state and were very much the model for training that took place during this year's TLCF grant. While co-sponsored by OSLIS, these trainings fell outside the parameters of the TLCF grant and are not included in this historical account.

Oregon Schools Participating in OSLIS Projects Prior to the 2001-2002 TLCF Grant

For the purposes of this grant a fairly complete database of Oregon public schools was developed that include 1224 schools. This database includes several private schools and omits several alternative schools and ODE correctional schools typically included in ODE extant databases.

Of these 1224 schools a total of 161 had participated in OSLIS projects prior to this year's TLCF grant. While these schools were distributed throughout the state and represent varying levels of poverty, they still only represented slightly over 13% of the schools contained in our database.

These schools constitute the baseline for this year's efforts. Reaching as many of the remaining schools, especially high poverty and "last mile" schools has been a significant objective of this year's project.

Tables 1-4 present several summaries of the schools participating in OSLIS projects prior to this year's TLCF grant.

Table 1. Pre 2001-2002 TLCF OSLIS Schools by Level of Schooling

| Level of Schooling | 98-99 LSTA | 99-00 TLCF | 00-01 TLCF | Total OSLIS | State as a Whole | % of State |
|---------------------------|-------------------|-------------------|-------------------|--------------------|-------------------------|-------------------|
| Elementary (K-5) | 9 | -- | 24 | 33 | 682 | 4.8% |
| Middle School | 5 | 22 | 7 | 34 | 209 | 16.3% |
| High School | 13 | 52 | 13 | 78 | 213 | 36.6% |
| Mixed (K-12) | -- | 4 | 1 | 5 | 34 | 14.7% |
| Mixed (K-8) | 1 | 1 | 3 | 5 | 61 | 8.2% |
| Mixed (7-12) | -- | 4 | 2 | 6 | 25 | 24% |
| Total | 28 | 83 | 50 | 161 | 1224 | 13.2% |

Table 1 makes clear that the focus of OSLIS has been at the high school. Over half of all schools participating in prior OSLIS projects have been contained grades 9-12. Indeed, almost 40% of all Oregon high schools have participated in past OSLIS projects.

This focus at the high school level has in part been intentional. Participant selection criteria have favored high schools by requiring a certified LMS in the school as necessary for participation. It is not coincidence that evaluation results to date, as well as emerging research, indicate that a focus on information literacy skills is most effective at the higher grades.

Table 2 demonstrates the fairly equitable distribution (in terms of numbers) of schools that have participated in past OSLIS projects by the type of communities they serve. While the greatest *raw number* of schools participating in prior OSLIS projects are located in urban or suburban communities, a larger *proportion* of schools serving small cities/town and rural/isolated communities have participated in prior OSLIS grants. In past projects OSLIS has purposely selected participants to represent a broad and varied set of schools and communities.

Table 2. Pre 2001-2002 TLCF OSLIS Schools by Community Type

| Level of Schooling | LSTA | 99-00 TLCF | 00-01 TLCF | Total OSLIS | State as a Whole | % of State |
|---------------------------|-------------|-------------------|-------------------|--------------------|-------------------------|-------------------|
| Urban/ Suburban | 14 | 26 | 19 | 59 | 583 | 10.1% |
| Small City Town | 10 | 25 | 14 | 49 | 284 | 17.3% |
| Rural/ Isolated | 4 | 32 | 17 | 53 | 357 | 14.8% |
| Total | 28 | 83 | 50 | 161 | 1224 | 13.2% |

Table 3 demonstrates the geographic diversity of schools participating in prior OSLIS grants. Indeed, schools in all counties except Grant, Harney and Klamath counties have been active participants in prior OSLIS grants. As can be seen in Table 3, a disproportionately high number of schools have been located in Eastern Oregon, along the coast, and along the Columbia River. Conversely, schools in the Portland metropolitan area have been under represented.

Table 3. Pre 2001-2002 TLCF OSLIS Schools by Geographic Area

| Level of Schooling | LSTA | 99-00 TLCF | 00-01 TLCF | Total OSLIS | State as a Whole | % of State |
|----------------------------|-------------|-------------------|-------------------|--------------------|-------------------------|-------------------|
| Portland Metro Area | 7 | 12 | 9 | 28 | 333 | 8.4% |
| Willamette Valley | 10 | 25 | 17 | 52 | 408 | 12.7% |
| Southern Oregon | 3 | 14 | 6 | 23 | 157 | 14.6% |
| Oregon Coast | 5 | 7 | 4 | 16 | 88 | 18.2% |
| Central Oregon | | 5 | 1 | 6 | 54 | 11.1% |
| Columbia River | 1 | 11 | 4 | 16 | 91 | 17.6% |
| Eastern Oregon | 2 | 9 | 9 | 20 | 93 | 21.5% |
| Total | 28 | 83 | 50 | 161 | 1224 | 13.2% |

Table 4 presents the poverty levels of schools participating in prior OSLIS grants. As can be seen in the table the majority of schools participating in previous OSLIS grants fall into the moderate and low categories of poverty – under 40% of students qualifying for free and or

reduced lunch. In some respects this is an artifact of the levels of poverty at the *high school level* versus the *elementary school level*. The median percent of students qualifying for free/reduced lunch at the elementary level is over 42%. On the other hand, the median percent of students qualifying for free/reduced lunch at the high school level is about 26%. With the majority of OSLIS schools being high schools, the results in Table 4 are to be expected.

The results in Table 4, however, did provide the impetus to focus on high poverty schools for this year's TLCF project.

Table 4. Pre 2001-2002 TLCF OSLIS Schools by Poverty Level

| Level of Schooling | LSTA | 99-00 TLCF | 00-01 TLCF | Total OSLIS | State as a Whole | % of State |
|---------------------------|-------------|-------------------|-------------------|--------------------|-------------------------|-------------------|
| Low (0-20%) | 10 | 17 | 9 | 36 | 224 | 16.1% |
| Moderate (20-40%) | 12 | 39 | 15 | 66 | 386 | 17.1% |
| High (40-60%) | 4 | 24 | 16 | 44 | 384 | 11.5% |
| Very High (60%+) | 2 | 3 | 10 | 15 | 230 | 6.5% |
| Total | 28 | 83 | 50 | 161 | 1224 | 13.2% |

Summary

Over the four years prior to the 2001-2002 TLCF Project of Statewide Significance a total of 161 Oregon schools had participated in OSLIS projects. These schools, while representing diverse levels, types of communities, geographic regions and poverty levels, were all served by certified Library Media Specialists.

The challenge for this year was to reach out to schools that had not yet participated in an OSLIS project, especially schools in rural or isolated settings, high poverty schools and schools that might not be served by a certified LMS.

This section has provided baseline data for evaluation questions regarding the breadth and equity focus of professional development activities provided this past year.

PART 3. RESULTS

The evaluation results are presented against the evaluation questions posed on page two of this report. Each section will identify the question and the sources of data used to judge success. Sections include:

- **Section One** presents results for questions related to equity and breadth of training.
- **Section Two** presents results for questions related to the effectiveness of training and follow-up implementation.
- **Section Three** presents results for questions related to the level of use of the online resources and the OSLIS website by participating OSLIS schools and the value schools place in these resources.
- **Section Four** presents results related to outcomes for students and teachers in the areas of information literacy, classroom performance and student achievement.

Section 3.1. Breadth and Equity of Training

Two questions were posed related to the breadth and equity of training provided through this TLCF grant:

1. Do professional development activities target *high poverty schools*?
2. Do professional development activities target *new users*?

The project had proposed multiple strategies to both advertise/promote and recruit participants, as well as to provide training. A Training Coordinator was hired to plan and implement a statewide training program that included:

- Regional on-site workshops in ESD regions;
- On-site, on-demand workshops sponsored by school districts or ESDs;
- Maintaining contact with schools in the OSLIS “high poverty” file;
- Workshops at periodic times throughout the year via Oregon Access Network;
- An online help desk to assist users as their needs are identified, publish online user “tip sheets” and sponsor a chat room through which users can support one another; and,
- Providing special training to one experienced OSLIS user in each ESD region to act as a mentor. ESD staff members who have experience with the OSLIS system or whose job responsibilities already include delivering professional development services would be recruited when the mentors are selected.

A focused and concerted effort was made to specifically recruit participants from high poverty schools. At least three letters were sent to each “high poverty” school in Oregon inviting them to attend trainings or request on-site training.

Throughout the year attempts were made to document the schools represented by participants in all trainings. With the (at times loosely coupled) system of training employed via ESDs, it has not been possible to fully or accurately document *all* schools represented by those participating in OSLIS trainings this past year. Through a triangulation process a list has been developed that captures the vast majority of participants and will be used to address these questions. The list most likely *UNDER REPRESENTS* participating schools. The results presented here and the conclusions drawn will tend to err on the conservative side.

Records of participants would indicate that during the past year individuals from *at least 529 Oregon public and private schools* attended training sessions on OSLIS and EBSCO resources.

Did professional development activities target high poverty schools?

Of the 529 schools identified as receiving training, 281 (53.1%) are categorized as high poverty schools by the Oregon Department of Education (schools having over 40% of students qualifying for free/reduced lunch).

➤ *These 281 schools represent nearly half (46%) of the 614 high poverty schools in Oregon.*

Tables 5 and 6 break these high poverty schools out by geographic region and community type.

Table 5. 2001-2002 High Poverty OSLIS Schools by Geographic Region

| Geographic Region | 2001-2002 OSLIS Trained Schools | | All High Poverty Schools in Region |
|----------------------------|---------------------------------|------------------------------------|------------------------------------|
| | All participating schools | High Poverty participating Schools | |
| Portland Metro Area | 116 | 64 | 128 |
| Willamette Valley | 195 | 80 | 183 |
| Southern Oregon | 51 | 32 | 108 |
| Oregon Coast | 47 | 31 | 55 |
| Central Oregon | 41 | 26 | 32 |
| Columbia River | 38 | 20 | 42 |
| Eastern Oregon | 41 | 28 | 66 |
| Total | 529 | 281 | 614 |

In looking at the center columns in Table 5, it is clear that in all areas except the Willamette Valley, the majority of schools receiving training during this past year were *high poverty schools*. These percents ranged from approximately 55% (64/116) the Portland Metro area to about 68% (28/41) of schools in Eastern Oregon.

In looking at the two center columns in Table 5, the percentage of all high poverty schools in a geographic area receiving training this past year ranged from a low of approximately 30% (32/108) in Southern Oregon to a high of 81% in Central Oregon (26/32).

Table 6. 2001-2002 High Poverty (and other) Schools by Community Type

| Community Type | 2001-2002 OSLIS Trained Schools | | All High Poverty Schools in Region |
|------------------|---------------------------------|------------------------------------|------------------------------------|
| | All participating schools | High Poverty participating Schools | |
| Urban/ Suburban | 281 | 127 | 235 |
| Small City/ Town | 125 | 77 | 162 |
| Rural/Isolated | 123 | 77 | 217 |
| Total | 529 | 281 | 614 |

In looking at Table 6, it is evident that training for staff in high poverty schools was most intense in rural/isolated school settings with nearly 63% (77/123) of all rural/isolated schools receiving training being high poverty schools. Conversely, the percentage of *all high poverty* schools by community type was highest in urban and suburban areas with over 54% of all high poverty urban/suburban schools receiving training on OSLIS and EBSCO resources this past year.

In prior OSLIS projects approximately 37% of participating schools were classified as high poverty schools. This year, with a clear focus on pursuing high poverty schools, over 53% of all participating schools are categorized as high poverty schools. While training was available to all schools, special efforts were made to recruit participants from high poverty and rural/isolated schools. Given the significant increase in the overall percent of high poverty schools participating in training this past year it would appear that this targeted effort was fairly successful.

Did professional development activities target new users?

New users are defined as schools not previously participating in an OSLIS project.

- *Of the 529 schools with staff receiving training in OLSIS and EBSCO resources this year, 461 (over 87%) have been identified as new participants.*

It would appear that publicity from previous OSLIS projects, word of mouth sharing within the education community, as well strategies to advertise training sessions in combination all have been very successful in recruiting new users.

Specific demographics of new users are shown in Figures 1-3. As can be seen in Figure 1, slightly over half of all new users represented high poverty schools (55%). Indeed, schools with very high levels of poverty (over 60%) are *over represented* in the new users. Statewide, 18.8%

of all Oregon schools fall into this category. Fully 24% of the new users fall into this category.

Figure 1. New Users by Poverty Level

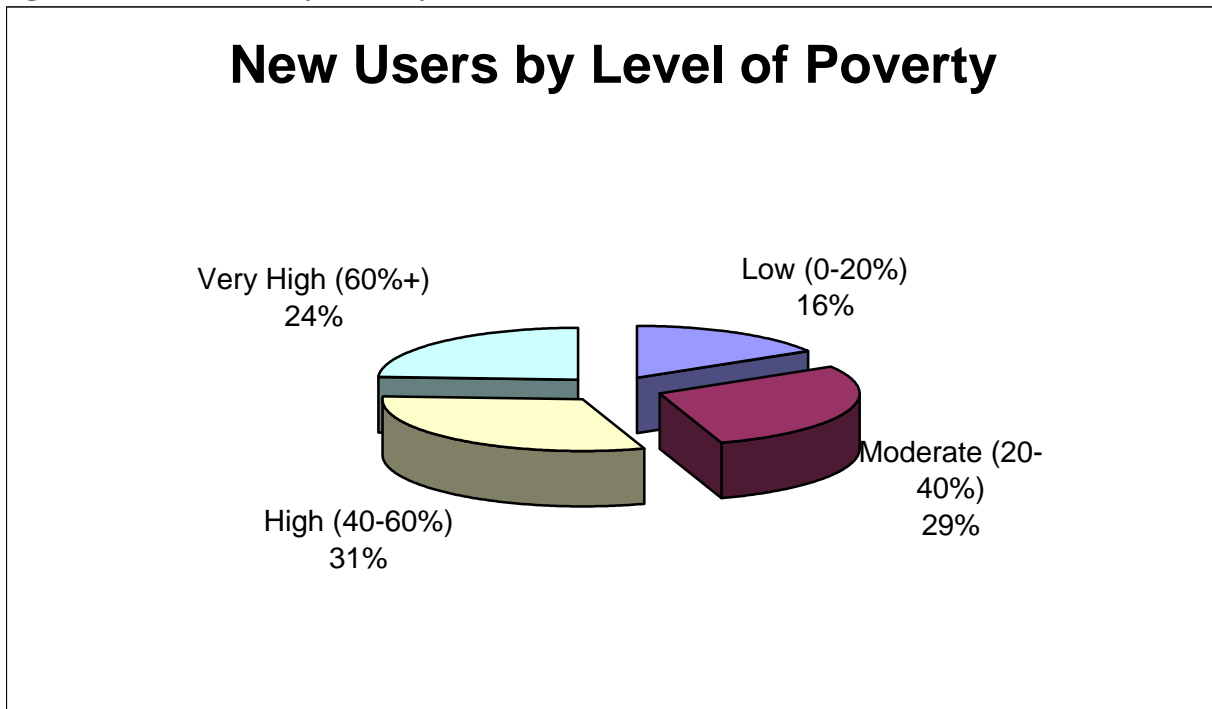


Figure 2 shows the distribution of new users by community type. The largest proportion of new users represent urban/suburban communities. This was in large part due to providing training to all Portland schools. This distribution also in part reflects the over representation of rural and/or isolated settings as well as small city participants in previous OSLIS projects.

Figure 2. New Users by Community Type

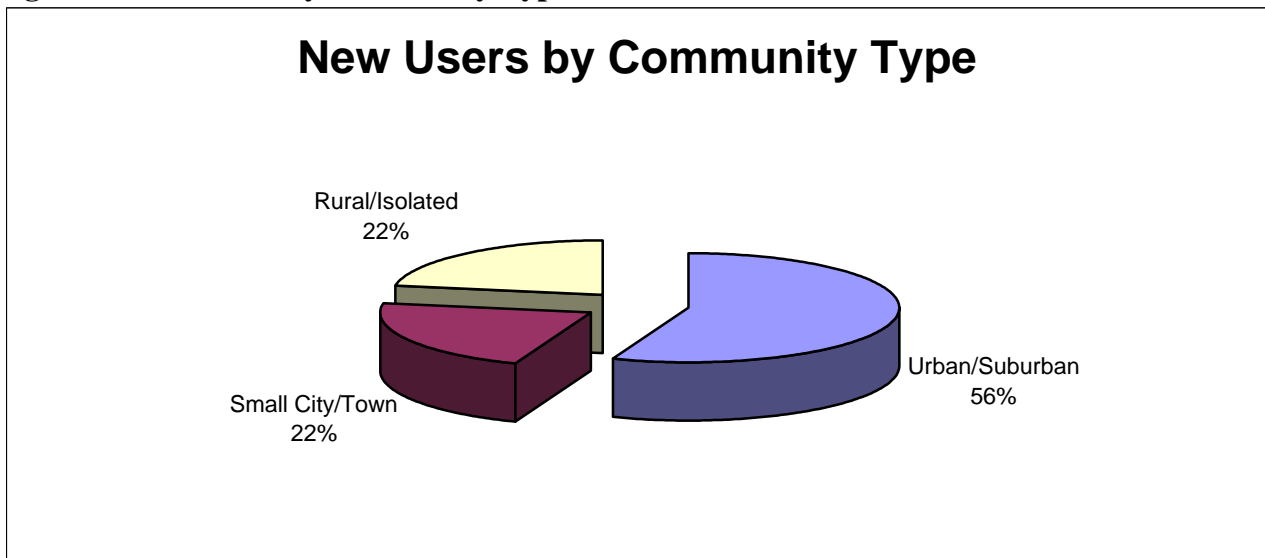
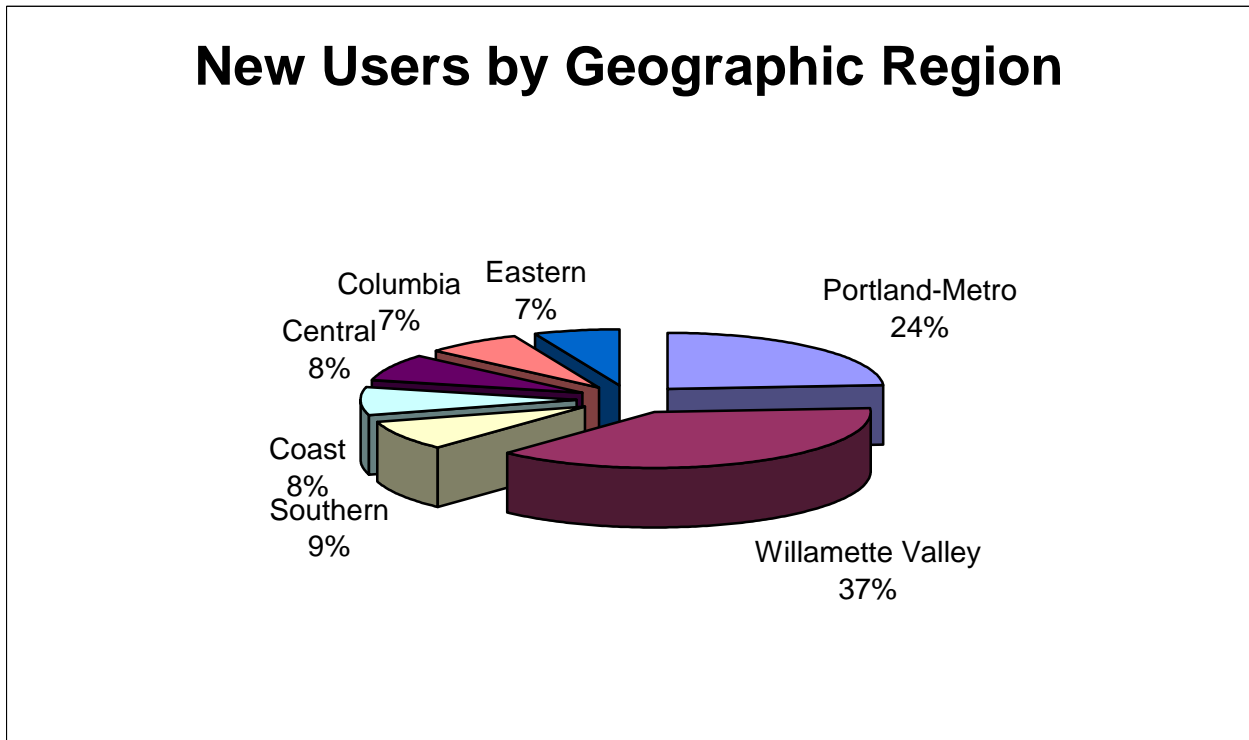


Figure 3 presents the distribution of new users by geographic region of the state. The distribution shown in Figure 3 is very consistent with the overall distribution of schools by geographic region.

Figure 3. New Users by Geographic Region



Summary

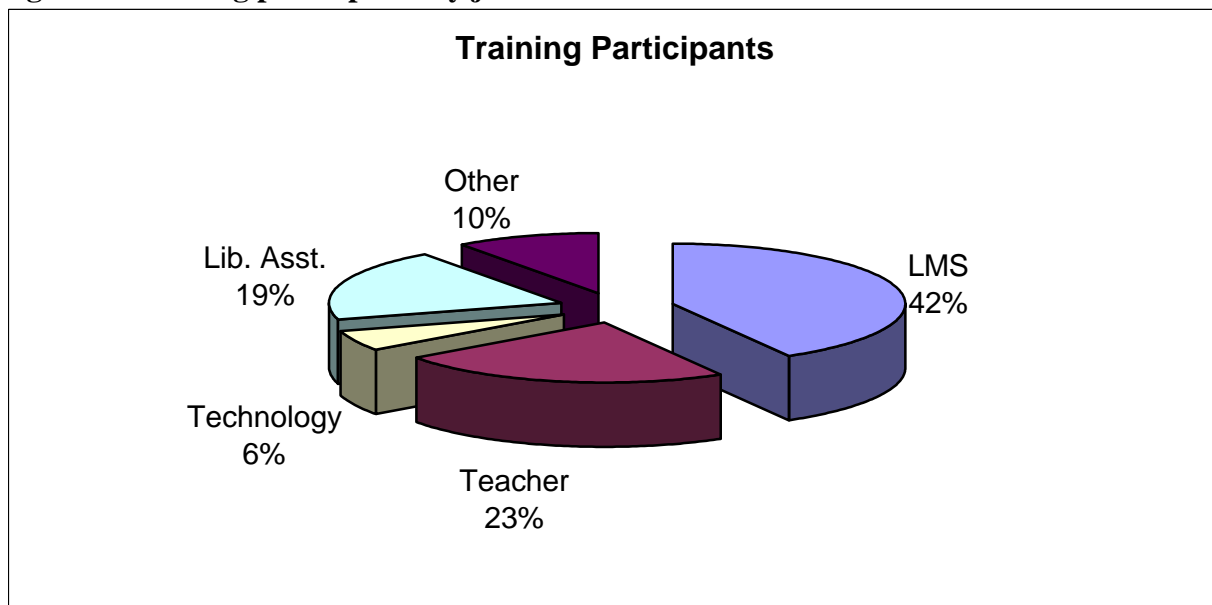
The data collected that documented participants at OSLIS/EBSCO training sessions indicate that strategies to recruit new schools and especially high poverty schools have been successful. Over half (53.1%) of the 529 schools with documented participants at training sessions represented high poverty school. Indeed, *nearly half of all high poverty schools* in Oregon had representatives participate in OSLIS trainings this past year.

Of the 529 schools with documented participants at training sessions, 461 (87%) represented schools that had not previously been part of OSLIS projects. These new schools were from all areas in Oregon, from all community types and predominantly high poverty.

Section 3.2. Training Effectiveness

Training satisfaction data was collected throughout the year. Satisfaction data were not collected at all training sessions due to the diffuse strategy for providing training. Data presented here are from 197 participants who represent approximately 40% of the population attending training sessions. These data were collected from participants in all regions of the state. Additionally, these data were collected from a wide variety of potential OSLIS and EBSCO users. The distribution of participants by job is shown below in Figure 4. In previous OSLIS projects training was almost exclusively provided for Library Media Specialists (LMSs). This past year however, LMSs made up only about 40% of participants. Teachers made up the second largest group of participants followed by Library Assistants and technology staff. The group defined as “other” was made up primarily of administrators, counselors and curriculum coordinators.

Figure 4. Training participants by job classification



Were participants satisfied with the content, format, quality, and likely impact of the CPD?

Participants were asked to respond to a series of questions at the end of training sessions regarding their satisfaction with the quality of the training received and their perceptions of likely impact. Overall, participants were very satisfied with the quality of training they received as evidenced in Figures 5 – 9.

As can be seen in Figure 5, almost all respondents (98%) indicated that the content of the training sessions on the OSLIS website and EBSCO resources was well presented.

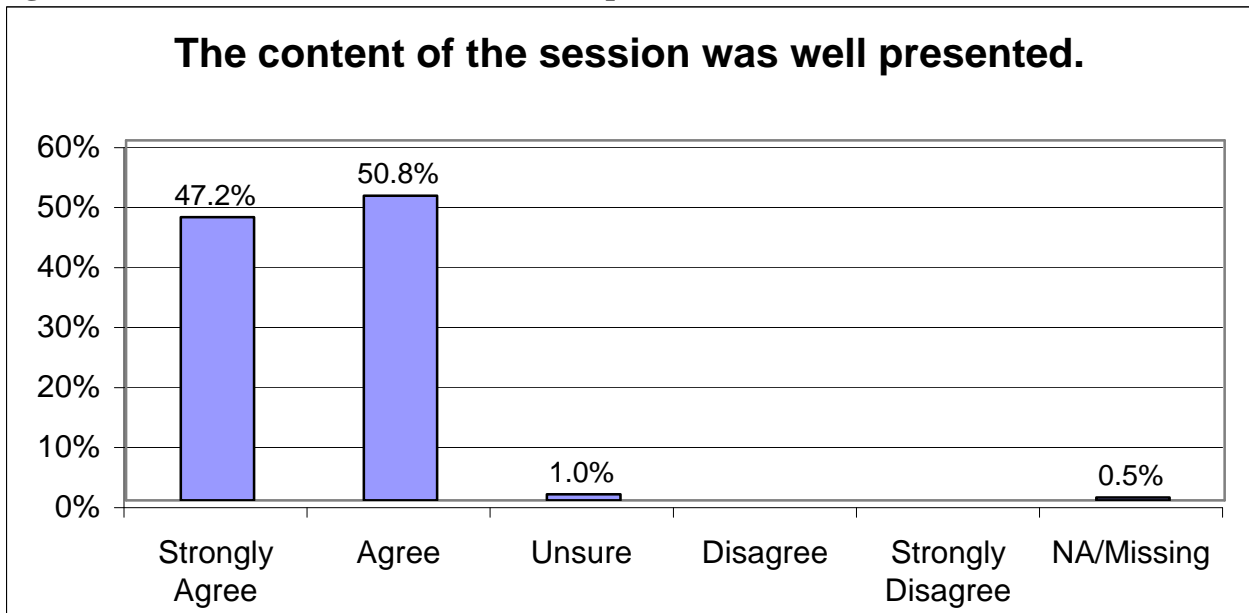
- Participants in training sessions with on-line access to OSLIS and EBSCO resources were slightly more positive in their responses than participants in sessions where they did

not have access (mean rating of 4.5 versus 4.3 on a 5-point scale).

- ❑ As a group, teachers were the most satisfied with the quality of presentations. While still quite satisfied, as a group, library assistants were the least satisfied with how well the content was presented.

Regardless of training session attended, presenter, or respondent, participants found the content of these sessions to well presented.

Figure 5. Satisfaction with how content was presented.

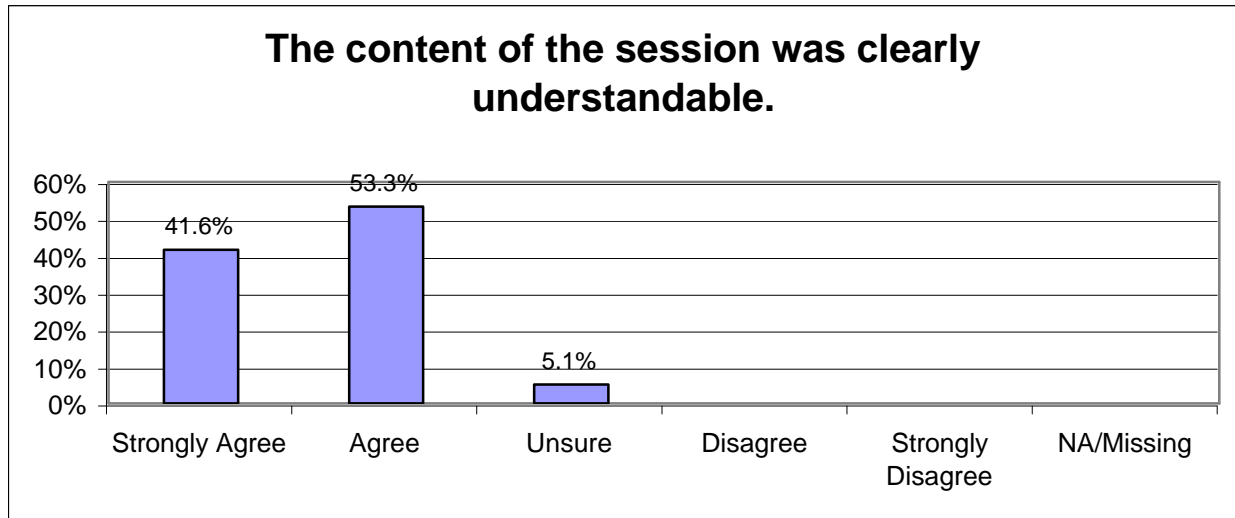


As can be seen in Figure 6, the vast majority (94.9%) of respondents indicated that the content of the training sessions on the OSLIS website and EBSCO resources was clearly understandable.

- ❑ Participants in training sessions with on-line access to OSLIS and EBSCO resources were also slightly more positive in their responses than participants in sessions where they did not have access (mean rating of 4.5 versus 4.2 on a 5-point scale).
- ❑ As a group, teachers were the most satisfied with the clarity of the content presented. As a group, library assistants found the content to be least understandable.

Regardless of training session attended, presenter, or respondent, participants found the content of these sessions to clearly understandable.

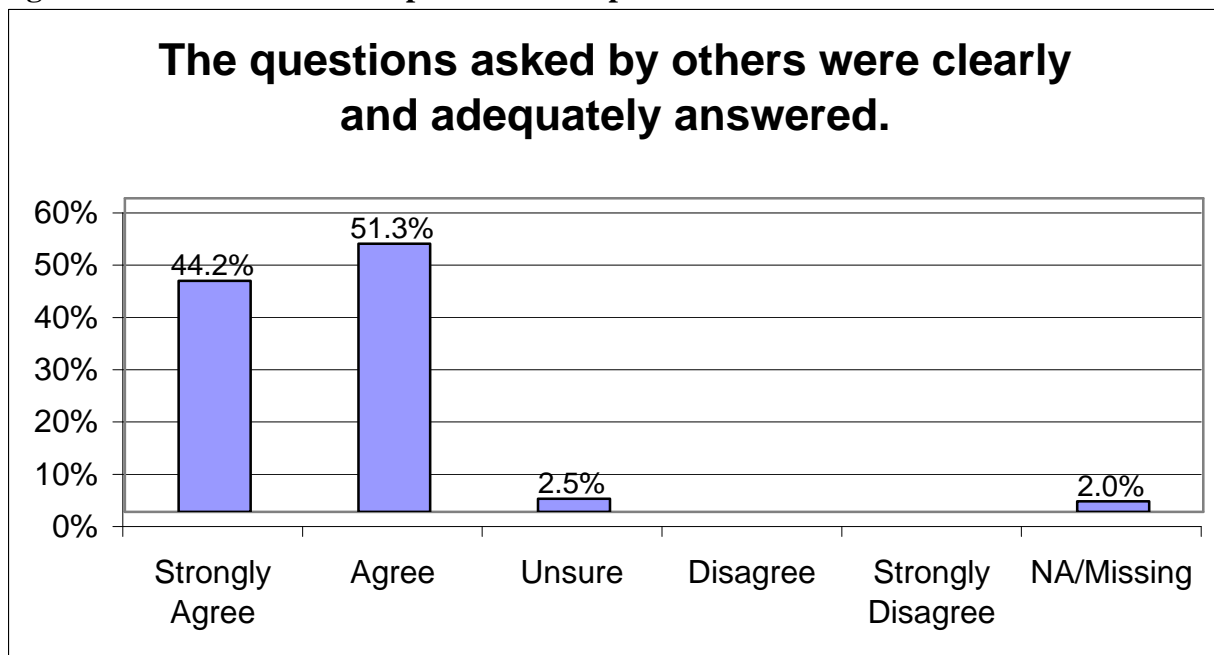
Figure 6. Satisfaction with the clarity of content presented



As can be seen in Figure 7, the vast majority (95.5%) of respondents indicated that the presenters clearly and adequately answered the questions posed by other participants.

- Participants in training sessions with on-line access to OSLIS and EBSCO resources were slightly more positive in their responses than participants in sessions where they did not have access (mean rating of 4.5 versus 4.2 on a 5-point scale).

Figure 7. Satisfaction with responsiveness of presenters to others

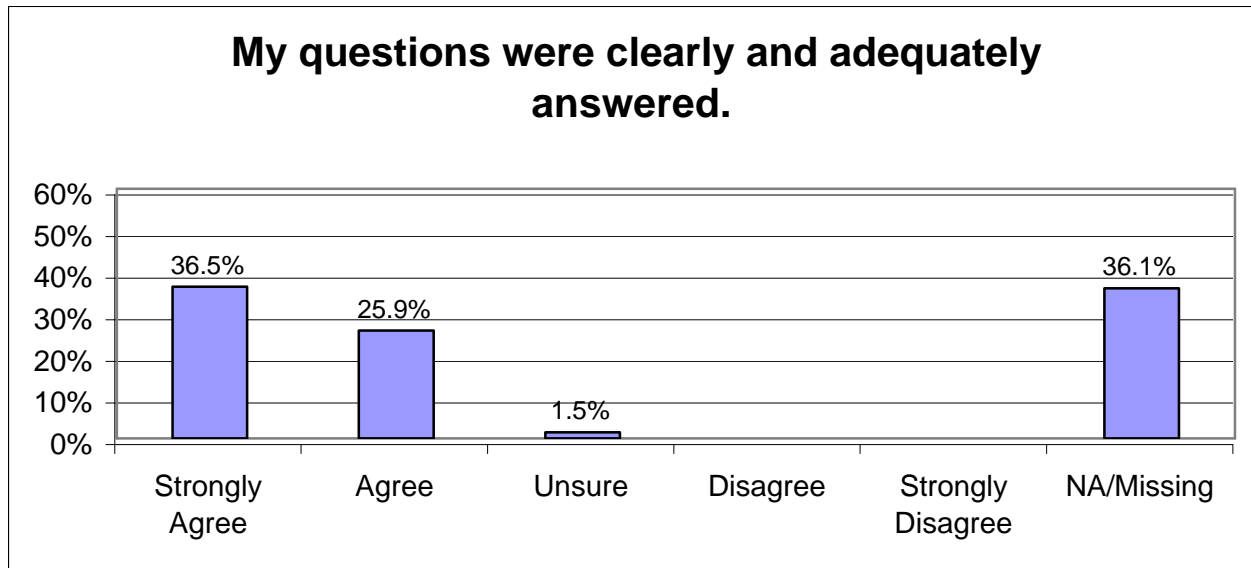


- As a group, teachers were again the most satisfied with the clarity and completeness of

the answers provided to others. Again, as a group, library assistants were least satisfied with the clarity and completeness of the answers provided to others.

Regardless of training session attended, presenter, or respondent, participants thought that the questions that had been asked by others had been clearly and adequately answered.

Figure 8. Satisfaction with responsiveness of presenters to self

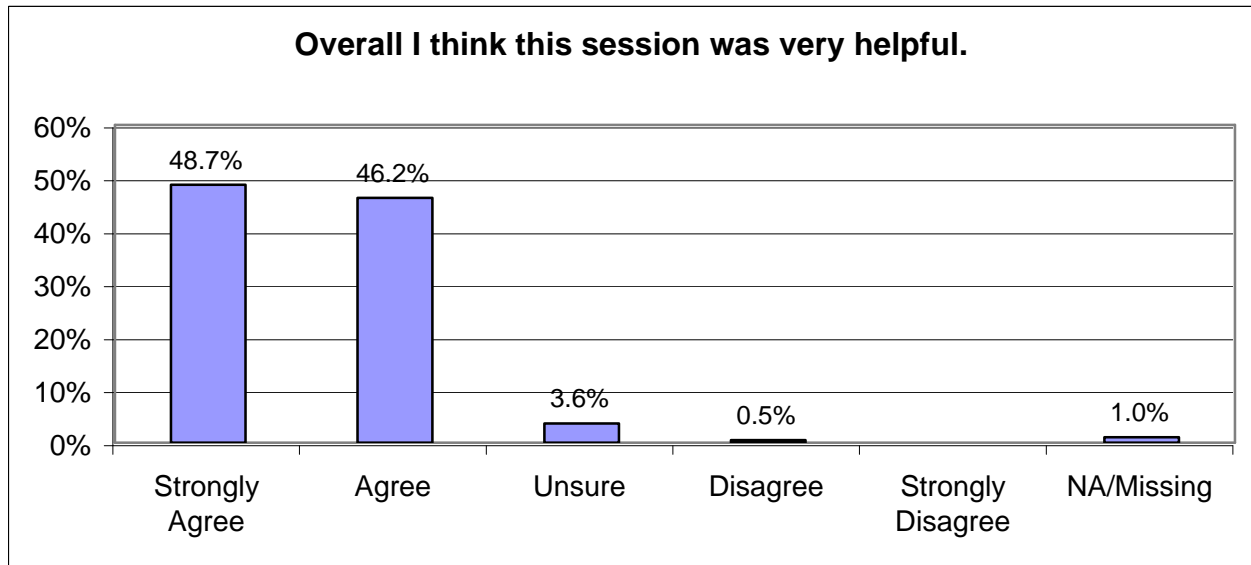


A more direct measure of the responsiveness of presenters to the needs of participants is how well respondents felt their own questions were answered (Figure 8). Since not all participants asked questions a large percentage of respondents marked N/A to the item. Of those who did ask a question, almost all (97.6%) indicated that they were quite satisfied with the clarity and adequacy of the answers presenters gave to their questions.

- Again, participants in training sessions with on-line access to OSLIS and EBSCO resources were more positive in their responses than participants in sessions where they did not have access (mean rating of 4.6 versus 4.4 on a 5-point scale).
- Again, as a group, teachers were the most satisfied with the clarity and completeness of the answers to their questions. Again, as a group, library assistants were least satisfied with the clarity and completeness of the answers to their questions.

Responses to this item represent a direct assessment of how responsive presenters were to the needs and questions of participants. Results would indicate that the various presenters were quite able to answer specific questions posed by participants.

Figure 9. Overall helpfulness of training



When asked to indicate how helpful they thought their attendance at the training session would be, the vast majority of respondents (94.9%) indicated that they thought the session would be helpful to them.

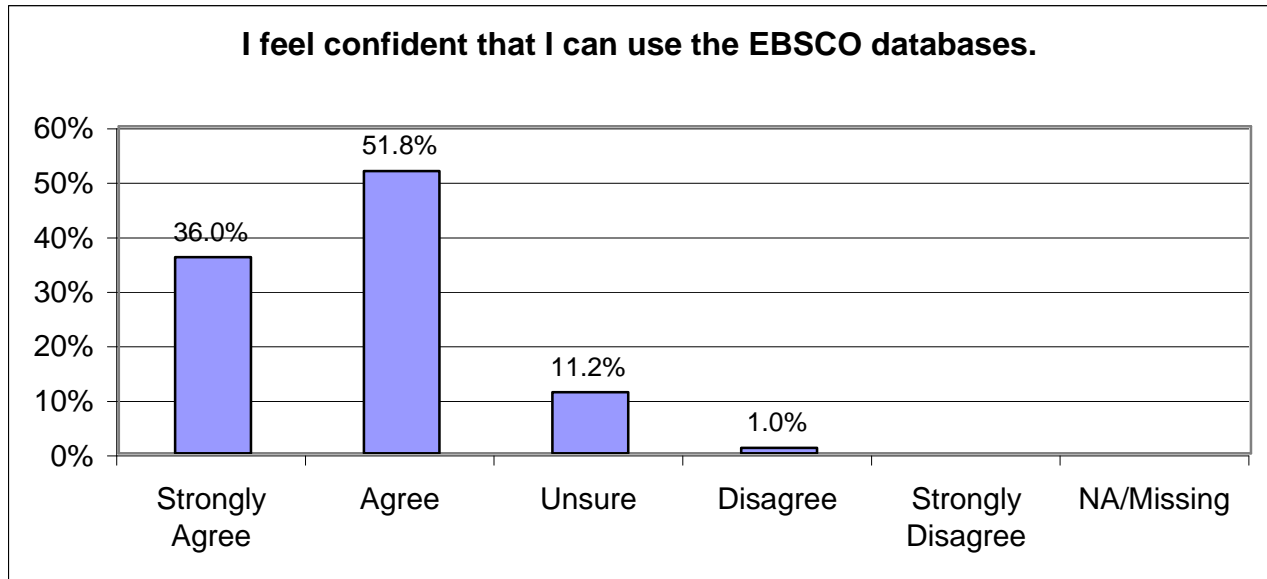
- Again, participants in training sessions with on-line access to OSLIS and EBSCO resources were more positive in their responses than participants in sessions where they did not have access (mean rating of 4.6 versus 4.2 on a 5-point scale). Clearly, conducting the training session in a computer lab environment where participants have access to the actual resources enhanced the quality and presumed impact of the training.
- Interestingly, while teachers, as a group, were the most satisfied with the training sessions, Library Media Specialists felt it would be most useful. Disappointingly, library assistants were least positive in their perception of the helpfulness of the sessions.

Overall, respondents came away from these training sessions feeling that what they had been exposed to would be helpful to them in their position. This was essentially the case, regardless of training session attended, presenter, or respondent.

Did participants gain valuable and usable knowledge and skills?

While satisfaction with the quality of presenters and the clarity with which content is presented is important, and probably even necessary for any impact, the acquisition of new knowledge and skills is a more important outcome of training. We asked participants to tell us in broad terms whether they acquired knowledge and/or skills on two levels. At one level, we were interested in knowing whether they thought they now had enough information to effectively use the OSLIS and EBSCO resources. At a higher level we were interested in knowing whether they felt they now had enough knowledge and skills to help other use these resources effectively.

Figure 10. Ability to use EBSCO resources



When asked to indicate whether they could effectively use the EBSCO resources after the training the vast majority of respondents (87.8 %) felt confident that they could do so. A number of respondents, however, were not yet sure, saying that they would need to spend some time actually using the resources first. Only two of the 197 respondents did not think they could use the resources after the attending the training session.

- Participants in training sessions with on-line access to EBSCO resources were more positive in their responses than participants in sessions where they did not have access (mean rating of 4.3 versus 3.9 on a 5-point scale). A higher percentage of respondents indicating they were as yet unsure attended session without access to the resources and both of those respondents who felt they could not use the resources attended session were they could not access and use the resources in a computer lab setting.
- As a group, Library Media Specialists felt most confident in their ability to use the EBSCO resources after having attended the training sessions. As a group, library assistants were least confident in their abilities to use the EBSCO resources effectively, though only slight less confident than teachers as a whole.

Overall, respondents came away from these training sessions feeling fairly confident that they could use the EBSCO resources effectively. This was basically the case, regardless of training session attended, presenter, or respondent, though having the opportunity to actually experience the resources in a computer lab setting seemed to enhance this sense of confidence.

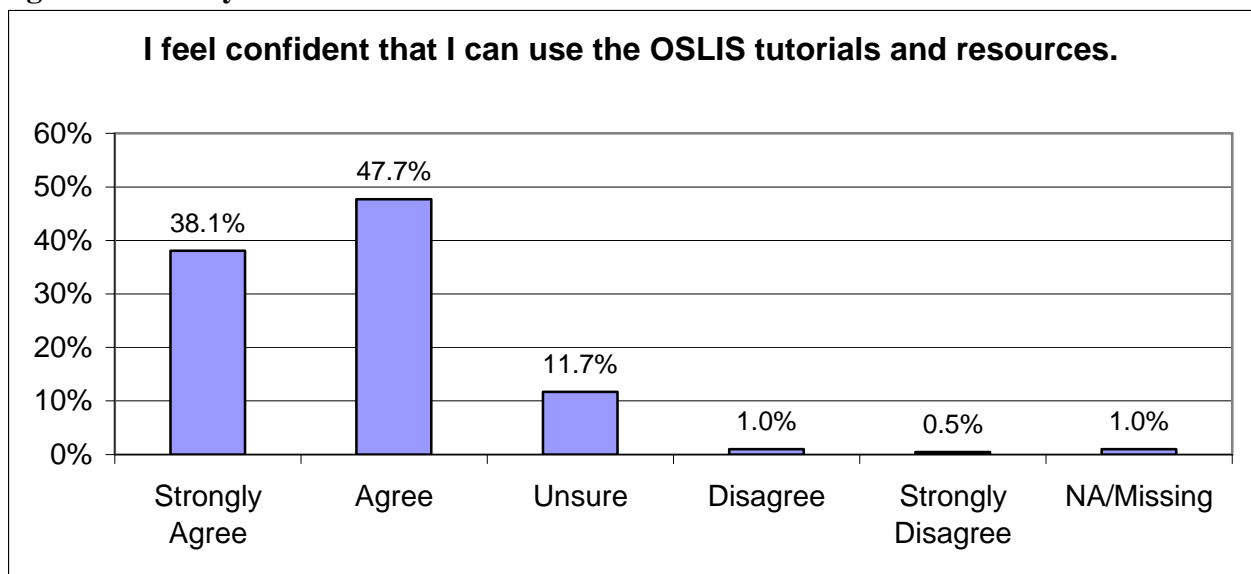
When asked to indicate whether they could effectively use the OSLIS resources after the training the vast majority of respondents (85.8 %) felt confident that they could do so. This is a slightly lower percentage of respondents than for EBSCO resources. Roughly the same percentage of

respondents as for the EBSCO resources were not yet sure, saying that they would need to spend some time actually using the resources first. Again, only two of the 197 respondents did not think they could use the resources after the attending the training session.

- Participants in training sessions with on-line access to OSLIS resources were more positive in their responses than participants in sessions where they did not have access (mean rating of 4.4 versus 4.0 on a 5-point scale). As with the use of EBSCO resources, a higher percentage of respondents indicating they were as yet unsure attended session without access to the resources and both of those respondents who felt they could not use the resources attended session were they could not access and use the resources in a computer lab setting.
- As a group, Library Media Specialists felt most confident in their ability to use the OSLIS resources after having attended the training sessions. As a group, library assistants were least confident in their abilities to use the OSLIS resources effectively.

Overall, respondents came away from these training sessions feeling fairly confident that they could use the OSLIS resources effectively. This was basically the case, regardless of training session attended, presenter, or respondent, though having the opportunity to actually experience the resources in a computer lab setting seemed to enhance this sense of confidence.

Figure 11. Ability to use OSLIS resources



As can be seen in Figures 12 and 13, respondents were significantly less confident they could effectively help *others* use these resources.

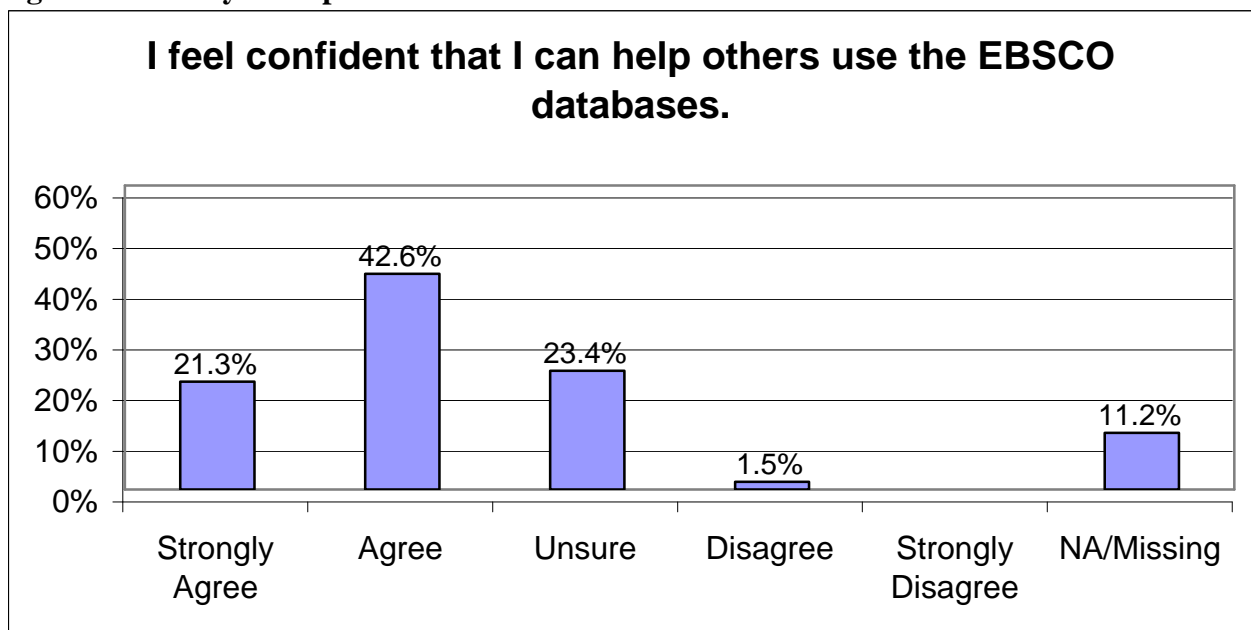
Figure 12 shows that somewhat less than two-thirds of respondents (63.9%) felt confident that they could help others use the EBSCO resources. Interestingly, just over 10% either did not answer this item or feel that they would be in a position to have to help others use these

resources. Surprisingly, and frankly disappointingly, the largest percent of those responding in this fashion were teachers.

- ❑ Overall, participants in training sessions with on-line access to EBSCO resources were only slightly more confident in their ability to help others than participants in sessions where they did not have access (mean rating of 4.0 versus 3.8 on a 5-point scale). Obviously the opportunity to actually access the resources during the training did not greatly enhance the confidence respondents had in their ability to help others use the resources.
- ❑ Not surprisingly, Library Media Specialists and Technology Specialists felt most confident in their abilities to help others use the EBSCO resources after having attended the training sessions. As a group, teachers felt least confident in their abilities to help others use the EBSCO resources effectively after having attended the training sessions.

While respondents were fairly consistent in their levels of confidence across trainers and training sessions, teachers were significantly less confident as a group than all other groups of respondents.

Figure 12. Ability to help others use EBSCO resources



As can be seen in Figure 13, essentially the same percentage of respondents (63.4%) felt confident that they could help others use the OSLIS resources. Similarly, over 10% either did not answer this item or feel that they would be in a position to have to help others use these resources. Again, disappointingly, the largest percent of those responding in this fashion were teachers.

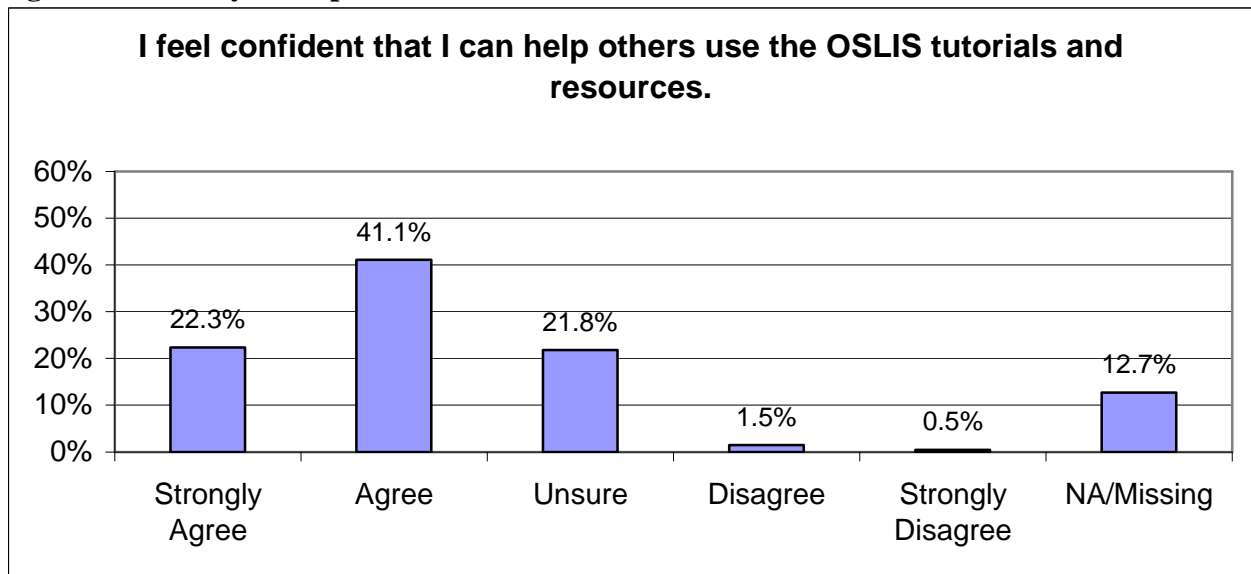
- ❑ Overall, participants in training sessions with on-line access to OSLIS resources were

only slightly more confident in their ability to help others than participants in sessions where they did not have access (mean rating of 4.0 versus 3.8 on a 5-point scale). Obviously the opportunity to actually access the OSLIS resources during the training did not greatly enhance the confidence respondents had in their ability to help others use the resources either.

- While it is not surprising that Library Media Specialists felt very confident in their abilities to help others use the OSLIS resources after having attended the training sessions, Technology Specialists and “others” (administrators, counselors, curriculum coordinators) were equally confident. As groups, teachers and library assistants felt least confident in their abilities to help others use the OSLIS resources effectively after having attended the training sessions.

While respondents were fairly consistent in their levels of confidence across trainers and training sessions, teachers and library assistants were significantly less confident as a group than all other groups of respondents. Library assistants were much more confident in their abilities to help others use the EBSCO resources than the OSLIS resources.

Figure 13. Ability to help others use OSLIS resources



Participants attending the training sessions sponsored through the TLCF grant indicated that they were very confident in their abilities to use the OSLIS and EBSCO resources as a result of attending sessions. Not surprisingly, they felt somewhat less confident in their abilities to help others use these resources. This was the case in previous grants even when intensive on-going training and follow-up were provided to exclusively to experienced Library Media Specialists.

Given the short-term nature of the training provide through the grant, prior experience with information technology, the research process and web-based information was most likely key to the outcomes found in these results.

Do participants implement the knowledge and skills they acquire through CPD with students?

Past OSLIS projects included a specific LMS/teacher collaboration component that included supporting materials and financial resources to facilitate the implementation of knowledge and skills acquired through training.

This project did not include such a component nor the forms and levels of support for implementation. To determine how, if at all, participants in these training sessions actually implemented what they learned we conducted a follow-up evaluation with participants attending training sessions early in the fall of 2001. It was thought that this group would have the greatest opportunity to implement what they learned by spring of 2002 when follow-up was to occur. Evaluations of previous projects clearly indicated that unless innovations were introduced very early in the school year, adoption by teachers was not likely to happen.

As in previous OSLIS projects, a follow-up evaluation form was used to capture changes in practice and outcomes resulting from, or related to, the training that occurred on the use of OSLIS and EBSCO resources. Results presented here are for a small sample of participants at fall trainings who gave us permission to contact them in the spring. These results should be viewed with great caution and not be interpreted as generalizing to the broader population of participants.

Table 7. Follow-up ratings of implementation and impact

| Statement | Response | | | | |
|---|----------------|-------|----------|-------------------|-------|
| | Strongly Agree | Agree | Disagree | Strongly Disagree | N/A |
| At this time I think the workshop provided me with useful information and skills | 75% | 25% | | | |
| I have been able to implement strategies that were discussed at the workshop | 37.5% | 37.5% | | 12.5% | 12.5% |
| There has been an impact on the teachers I work with as a result of implementing what I learned at the workshop | 37.5% | 25% | 12.5% | 12.5% | 12.5% |
| There has been an impact on the students I work with as a result of implementing what I learned at the workshop | 25% | 50% | | 12.5% | 12.5% |

On the surface the results in Table 7 appear positive. Clearly the majority of respondents indicate that they received useful information that they have been able to implement and as a result have observed positive impacts on teachers and students. While the perception of

receiving useful information is a bit higher than previous OSLIS grants, perceptions regarding implementation and outcomes are much less positive than in past years. This should not be surprising, given the comparative lack of support for implementation.

In addition to asking participants to make ratings we also asked them to specifically describe what they were doing differently in terms of implementation, what future plans they have, what outcomes or impacts they have observed in students and teachers, any problems they have encountered in using the OSLIS and or EBSCO resources and any additional training they think they need.

Current changes in practice: Teachers

Responses varied greatly on this item. Some respondents indicated that they were not doing anything because they could not access EBSCO on their computer system. On the other end of the spectrum, it was reported that EBSCO was being used as the primary reference source for senior projects and research reports.

The majority of respondents reported that they had shared the information they had received at the training with teachers and were urging them to make use of these resources. Few, however, indicated that they provided any training to others in their school on the use of OSLIS or EBSCO resources.

Planned changes in practice: Teachers

By and large respondents either planned to do nothing more or simply continue to urge their colleagues to use the resources. None expressed plans to provide either formal or informal training on the use of the resources in the future.

It would appear that without the requirement, and related supporting resources, to work collaboratively with teachers as part of this grant, participants in the OSLIS/EBSCO trainings were much less aggressive in sharing what they had learned with colleagues.

Current changes in practice: Students

Again, responses to this item varied greatly. One respondent indicated that they did not work with students. At the most intensive level, respondents indicated provided both group instruction and one-on-one tutoring to students on the use of the OSLIS and EBSCO resources.

Respondents also commonly indicated that they had formatted their library and lab computers to open to the OSLIS website or placed the OSLIS or EBSCO icon prominently on their home page. In addition, most respondents reported urging students to make use of the resources.

Planned changes in practice: Students

Respondents did have future plans for working with students. These plan included such things as:

- Providing instruction around the Tutorials and “How To’s”;
- Incorporating these resources into the library skills class for next year; and,
- To work with science students using the EBSCO databases.

These responses would indicate participants found worth in the resources and will continue using them and promoting their use in the future.

Observed outcomes or impacts with students

Respondents reported positive outcomes for students in several areas. The two most common were related to being more successful in finding information and properly citing the information they found.

Observed outcomes or impacts with teachers

A greater range of outcomes were observed for teachers. Some reported no impact whatsoever. Others, however, did cite specific impacts, including:

- Teacher are encouraging students to use the resources when doing research;
- Teachers are making use of the resources in planning projects;
- Teachers are incorporating/requiring that the resources be use in large projects;
- Teachers are becoming more adept at searching for and finding information themselves; and,
- Teachers are more comfortable in searching for information to answer specific questions students have.

These are encouraging observations. In previous projects, as well as other current efforts within OSLIS, it has become very clear that students will not automatically go to these resources as a first choice unless teachers and others urge or require them to. These observations indicate that teachers exposed to the OSLIS and EBSCO resources do find them valuable and are beginning to incorporate them into practice. This will, in turn, likely result in greater student use and outcomes.

Challenges using OSLIS/EBSCO resources

The majority of respondents indicated that they had encountered no problems in using the OSLIS and EBSCO resources. Others, however, did report problems. These challenges are consistent with those experienced by previous TLCF participants and include:

- Gaining buy-in from students and colleagues to use the resources;
- Technical problems that cause very slow loading or not being able to access the resources at all; and,
- EBSCO resources not supporting all content areas at all levels equally well. As in the past, some students were not able to find information on certain topics.

Gaining buy-in is a challenge that can be overcome with time and persistence. We have found few instances in the past four years where teachers and students have not come to value these resources once they have actually used them extensively.

While the content provided within the EBSCO databases are certainly extensive, they have not been, or will be, designed to contain information on all topics.

The most concerning of these is the continued technical problems that plague the use of these resources in certain schools and school districts. This is a systemic problem that continues to challenge mostly small rural/isolated schools who may be in the greatest need of these resources.

Additional workshop content needed

Respondents cited few areas where they felt they needed additional training. Requests were made for additional information on specific search strategies or tools within EBSCO, ideas for projects that would take full advantage of the resources and simply some “refresher” courses.

Summary

Data collected indicate that the quality of training presented through the OSLIS project was high. Participants indicated that the information was well presented and clearly understandable. Further, results indicate that presenters were able to clearly and adequately answer questions posed by participants. There did not appear to be any significant differences in this high level of satisfaction by type of participants or by whether training venues allowed on-line access for all participants.

Results indicate that in general participants came away from training sessions confident in their ability to use the resources from EBSCO and OSLIS. Participants were significantly less confident that they could help others use the resources. There were differences found in these results by type of respondent and whether training venues allowed on-line access for all participants. Certified Library Media Specialists were clearly most confident in their abilities to use the resources themselves and help others use them. Library aides – an important audience if these resources are to be effectively used in all schools – were least confident in their abilities to both use the resources themselves and help others use them. Respondents who attended training sessions where they had personal access to the on-line resources were more confident in their abilities to use the resources and to help others use them as well.

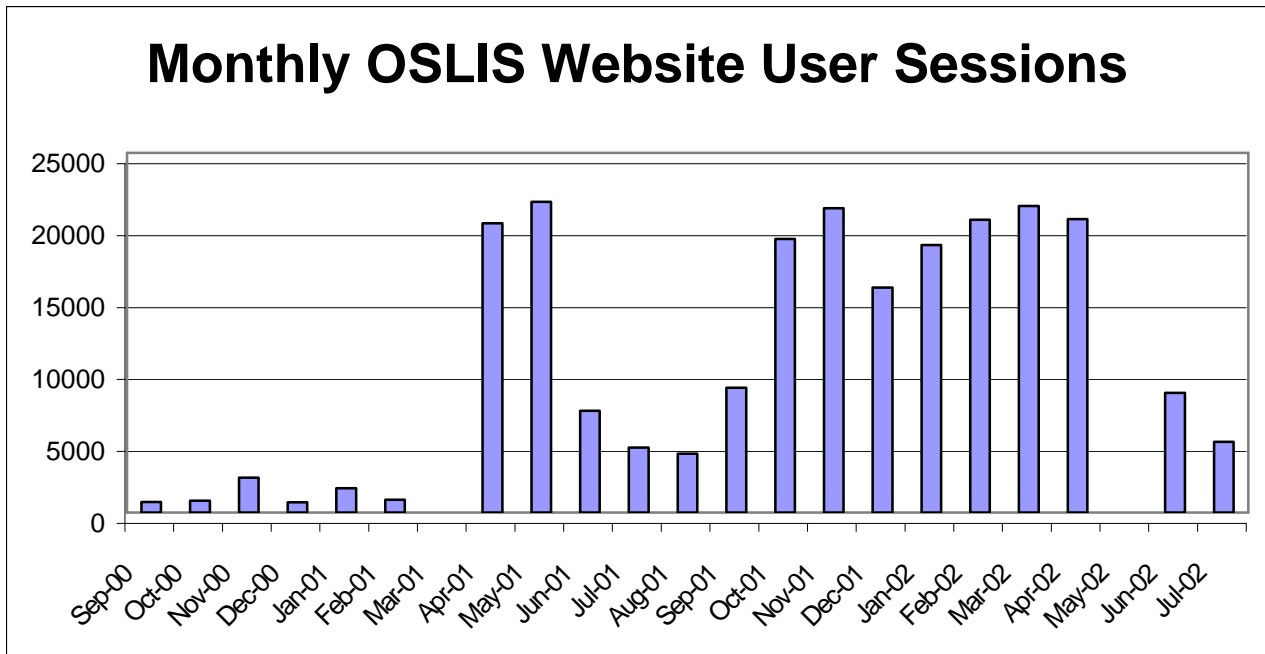
Section 3.3. Use and Value of Resources

A critical indicator of project success and impact is the use of OSLIS and EBSCO resources. With the purchase of the statewide license for EBSCO a major focus of OSLIS has been to publicize these resources and provide training in their use. It is axiomatic that these resources have no value or worth if they are not used. The value of these resources to schools in Oregon can be determined by whether school are willing to pay for the resources themselves to purchase a statewide license for the 2002-2003 school year.

Use of OSLIS website resources

Usage data kept by OPEN over the past two years provide a gauge for measuring the use of the various information literacy skills curricular resources available on the OSLIS website. The monthly usage rates for the past two years are presented in Figure 14. Please note that usage data for March 2001 and May 2002 are missing: usage was not zero.

Figure 14. Monthly Usage Rates



The drastic increase in OSLIS website usage starting in April 2001 is related to a statewide campaign to publicize the purchase of the statewide user license for EBSCO in K-12 schools. This was paired with training that took place around the state on the use of the EBSCO resources that also included training on the OSLIS website resources.

This year's OSLIS-TLCF grant has been designed to continue and expand these trainings throughout the state and in places not reached previously. Usage data for the 2001-2002 school year provide clear evidence that these efforts have been successful. Twenty thousand visits per month translate into approximately 1,000 visits per school day. The tutorials on the secondary

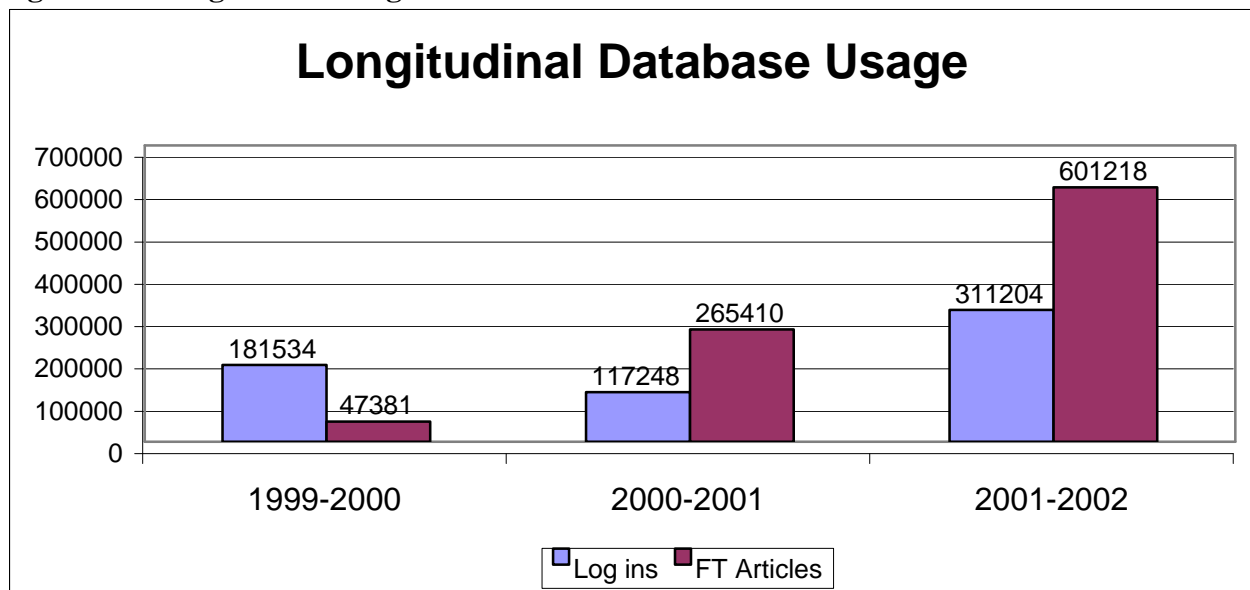
and elementary ages related to citing works used in research papers continues to be the most often visited pages on the website.

Use of EBSCO resources

It was hoped that EBSCO usage data could be disaggregated to the school or school district level on a consistent basis. Negotiations between OSLIS and EBSCO on the collection of usage data were on going for much of the year and final agreements were not reached until spring. A single report was submitted in June. Some data were reported at the school level, some at the district level, some at the ESD level and some at the state level. This inconsistency restricts our reporting to statewide usage only.

The usage data available on EBSCO use are suspect and may not reflect all use during this past year. Based on previous use data, the statewide nature of efforts this past year, and the protracted negotiations to establish what usage data was desired, there is reason to believe that these data may *under-represent* actual levels of use. Figure 15 shows several pertinent usage statistics for the past three years.

Figure 15. Longitudinal usage data



The number of log-ins over the past three years are consistent with the numbers of schools participating in OSLIS projects. During 1999-2000, the first OSLIS TLCF grant, 111 schools participated. In 2000-2001 the number of TLCF participating schools decreased to 50, though certainly the statewide training efforts in the spring coinciding with the purchase of the statewide user license had a positive impact on the number of log-ins. This past year 529 schools had individuals who participated in OSLIS/EBSCO trainings. Schools not attending training sessions are likely to be reflected in these usage data as well. The data available indicate EBSCO resources were accessed over 300,000 times this past year. This is nearly a three-fold increase over 2000-2001.

Arguably, a better indicator of use and worth are the numbers of articles printed from the EBSCO databases. This statistic has shown a dramatic increase over the past three years from less than 50,000 in 1999-2000 (less and 1 article for every 10 students in Oregon Public K-12 schools) to over 600,000 this past year. The data available from EBSCO indicate an impressive level of use, translating to more than 1 article printed out by every student in Oregon K-12 public schools.

Value of Resources

The evidence attesting to the level of value EBSCO resources have to Oregon schools are the number and percent of school districts subscribing to EBSCO for the 2002-2003 school year through OETC. School districts were made aware that the purchase of the statewide license was not going to be supported by OSLIS during the 2002-2003 school year and that they would have to pay for the license. As of August 2, 2002, districts representing 80% of Oregon public school students had subscribed. These subscriptions have more than paid for the statewide license for next year. These out-of-pocket expenses in a time of severe financial constraints attest to the value districts place in these resources.

Summary

A significant focus for this past year's TLCF grant has been the promotion of, and training support for, the statewide use of OSLIS and EBSCO. The usage data available from OPEN and EBSCO indicate high and increasing levels of use of both of these resources. That these resources are valued by Oregon schools is established by their willingness to subscribe to EBSCO for the 2002-2003 school year.

Section 3.4. Improved Student Classroom Performance and Achievement

Prior OSLIS projects focused specifically on providing participating LMSs the training, support and resources to facilitate information literacy skills instruction with students and teachers and collaborate with teachers to design classroom research projects to take full advantage of OSLIS and on-line database resources. The design of this year's project differed significantly from past years, emphasizing exposure and awareness more than information literacy skills instruction and collaboration.

Determining whether this year's design results in outcomes of the extent achieved by past OSLIS projects is important for designing future efforts to promote and support the use of OSLIS and on-line databases. OSLIS believed that elements of this year's design were necessary for effective and broad use of resources, but whether they were sufficient to achieve important student outcomes was unknown.

Three evaluation questions were posed related to student and school outcomes. These included:

1. Do students exhibit higher levels of information literacy skills?
2. Does student performance improve on classroom research assignments?
3. Does student performance improve over time in OSLIS schools on statewide assessments?

To address these questions, data collection approaches and analyses used in past TLCF projects have been replicated to the extent possible and practical. As part of a follow up evaluation participants at professional development events were asked to disseminate a survey to classroom teachers in their school. This survey asked teachers to rate a number statements related to student information literacy skills and the quality of their research projects. In addition, statewide assessment data from the past 3-5 years have been merged into a single database for analysis.

Do students exhibit higher levels of information literacy skills?

Classroom teachers responding to the follow-up survey provided some evidence by which to answer this question. For example:

- More than 4 out of 5 teachers responding (85.5%) either agreed or strongly agreed that students *found more information* related to their projects than in the past. This is very consistent with results from past years, where just over 80% of teachers either agreed or strongly agreed with this statement.
- Two-thirds of the teachers responding (66.6%) either agreed or strongly agreed that students *found more relevant information* than in the past. This is much lower than in past years, where over 90% of teachers agreed or strongly agreed with this statement.

- Slightly over three-quarters of the teachers responding (77.7%) of teachers either agreed or strongly agreed that overall, students *had greater success in finding information* related to their projects than in past years. This is somewhat lower than in past years, where almost 90% of teachers agreed or strongly agreed with this statement.
- Almost 9 in 10 teachers responding (88.9%) either agreed or strongly agreed that report *bibliographies included a broader range of resources* than in the past. This is consistent with results from past years, where 89% of teachers either agreed or strongly agreed with this statement.

Based on the contexts in which these teachers were working, it is difficult to determine whether these ratings reflect heightened information literacy skills, access to more resources through the EBSCO databases, or both. The comments that accompanied these ratings would tend to support both factors coming into play.

Comparisons with previous years results do shed some light on this issue. In comparison to past projects with more intensive interventions designed to specifically address these skills. Teachers were much less positive in their assessment of the relevance of the information they found and their overall success in finding information – indicators closely associated with information literacy.

➤ ***Student information literacy skills do appear to have improved in these schools, but not to the extent seen in past projects.***

This should not be viewed as an unexpected result given the lack of clearly specified requirements to provide information literacy skills instruction.

Does student performance improve on classroom research assignments?

The evidence addressing this question is less equivocal. For example:

- 62.5% of teachers responding agreed or strongly agreed that the overall quality of student work had improved over past years with the addition of the OSLIS/EBSCO resources. This is much lower than in past years, where nearly 80% of teachers agreed or strongly agreed with this statement.
- 50% of teachers responding either agreed or strongly agreed that *all* students had been successful with the research project evaluated. This is considerable lower than past years where nearly three quarters of the teachers responding (73%) either agreed or strongly agreed with the statement.
- A full 75% of responding teachers indicated that usually *low performing* students had been more successful. This compares very favorably with past results where about the same percentage of teachers (72.1%) either agreed or strongly agreed with the statement.

The comparisons to previous years evaluation results are again an important indicator of the sufficiency of this design at a statewide level.

- *The evidence available would indicate that overall student performance on classroom research assignments did improve in schools with the addition of the OSLIS/EBSCO resources, though generally not as much as in previous years.*

Again, this is not an unexpected result given the lack of clearly specified requirements to provide information literacy skills instruction and collaborative planning and implementation or research projects.

Does student performance improve over time on statewide assessments?

Past evaluations of OSLIS projects have found significant differences in the performance of students on Oregon Statewide Assessments between OSLIS and non-OSLIS schools. These differences are correlational only and no causation can be established. However, determining whether this year's design results in observed patterns of achievement found in past OSLIS projects is important for designing future efforts to promote and support the use of OSLIS and on-line databases. OSLIS believed that elements of this year's design were necessary for effective and broad use of resources, but whether they were sufficient to achieve important student outcomes was unknown.

The data sources are the *school level* results on each of the statewide assessments from 1998 through 2002. The metric used in all analyses is the total percent of students who meet or exceed the standard and can range from 0-100%.

Analyses

We have looked at performance on the statewide assessments from several perspectives:

- *Comparison of changes* from 2001 to 2002 in the mean percentage of students meeting or exceeding the standard between *all schools* with staff participating in OSLIS sponsored professional development activities and non-participating schools on the statewide assessments in Mathematics, Reading and Literature, Math Problem Solving, and Writing.
- *Comparisons* of the mean percentage of students meeting and exceeding the standard for *all schools* with staff participating in OSLIS sponsored professional development activities and students in Non-OSLIS schools, as groups, on the 2002 administration of the statewide assessments in Mathematics, Reading and Literature, Mathematics Problem Solving, Writing, and Science.

With the focus on high poverty schools, these analysis are replicated for high poverty schools only.

- **Comparison of changes** from 2001 to 2002 in the mean percentage of students meeting or exceeding the standard between **high poverty schools** with staff participating in OSLIS sponsored professional development activities and non-participating schools on the statewide assessments in Mathematics, Reading and Literature, Math Problem Solving, and Writing.
- **Comparisons** of the mean percentage of students meeting and exceeding the standard for **high poverty** schools with staff participating in OSLIS sponsored professional development activities and students in Non-OSLIS schools, as groups, on the 2002 administration of the statewide assessments in Mathematics, Reading and Literature, Mathematics Problem Solving, Writing, and Science.

Change from 2001 to 2002 in OSLIS and Non-OSLIS schools: All schools

For purposes of this analysis, OSLIS schools are defined as schools with staff participating in

Table 8. Changes in Performance from 2001 to 2002 in OSLIS and non-OSLIS elementary schools: All Schools

| Test - Grade | Percent Meeting/Exceeding the Standard | | Difference |
|-------------------------------------|--|--------------|------------|
| | 2001 Average | 2002 Average | |
| Mathematics-3 | | | |
| OSLIS | 73.6 | 75.2 | +1.6 |
| Non-OSLIS | 75.9 | 78.3 | +2.4 |
| Reading & Literature-3 | | | |
| OSLIS | 83.4 | 84.6 | +1.2 |
| Non-OSLIS | 85.5 | 86.0 | +0.5 |
| Mathematics-5 | | | |
| OSLIS | 72.2 | 73.3 | +1.1 |
| Non-OSLIS | 75.0 | 76.3 | +1.3 |
| Reading & Literature – 5 | | | |
| OSLIS | 74.9 | 77.7 | +2.8 |
| Non-OSLIS | 78.5 | 80.4 | +1.9 |
| Math Problem Solving – 5 | | | |
| OSLIS | 73.2 | 57.9 | -15.3 |
| Non-OSLIS | 73.9 | 57.4 | -16.9 |
| Writing - 5 | | | |
| OSLIS | 31.6 | 36.1 | +4.5 |
| Non-OSLIS | 32.8 | 36.8 | +4.0 |
| Science-5 | | | |
| OSLIS | 67.9 ¹ | 72.4 | +4.5 |
| Non-OSLIS | 71.2 ² | 75.9 | +4.7 |

¹ 1999-2000 results. Science test was not administered at grade five in 2000-2001.

² 1999-2000 results. Science test was not administered at grade five in 2000-2001.

OSLIS sponsored professional development activities during this TLCF grant period only. Schools defined as Non-OSLIS schools are those schools that have **never** participated in OSLIS sponsored professional development activities. Schools participating in previous OSLIS projects are not included in these analyses.

No clear patterns emerge in the data presented in Table 8 for elementary schools. Schools participating in OSLIS this past year saw slightly higher gains in Reading and Literature and slightly smaller gains in Mathematics at both grades three and five.

**Table 9. Changes in Performance from 2001 to 2002
in OSLIS and non-OSLIS middle and high schools: All Schools**

| Test - Grade | Percent Meeting/Exceeding the Standard | | Difference |
|--------------------------------------|---|--------------|------------|
| | 2001 Average | 2002 Average | |
| Mathematics – 8 | | | |
| OSLIS | 54.9 | 54.4 | -0.5 |
| Non-OSLIS | 53.2 | 54.3 | +1.3 |
| Reading & Literature – 8 | | | |
| OSLIS | 60.2 | 62.3 | +2.1 |
| Non-OSLIS | 59.8 | 62.5 | +2.7 |
| Math Problem Solving – 8 | | | |
| OSLIS | 55.0 | 45.4 | -9.6 |
| Non-OSLIS | 52.6 | 45.1 | -7.5 |
| Writing – 8 | | | |
| OSLIS | 33.2 | 32.6 | -0.6 |
| Non-OSLIS | 34.1 | 33.8 | -0.3 |
| Science-8 | | | |
| OSLIS | 58.5 | 58.9 | +0.4 |
| Non-OSLIS | 61.1 | 60.6 | -0.5 |
| Mathematics – 10 | | | |
| OSLIS | 36.5 | 41.9 | +5.4 |
| Non-OSLIS | 37.1 | 39.0 | +1.9 |
| Reading & Literature – 10 | | | |
| OSLIS | 47.3 | 50.3 | +3.0 |
| Non-OSLIS | 49.2 | 48.6 | -0.6 |
| Math Problem Solving – 10 | | | |
| OSLIS | 48.6 | 44.2 | -4.4 |
| Non-OSLIS | 45.3 | 38.9 | -6.4 |
| Writing – 10 | | | |
| OSLIS | 43.3 | 46.2 | +2.9 |
| Non-OSLIS | 45.2 | 45.5 | +0.3 |
| Science-10 | | | |
| OSLIS | 53.6 | 60.6 | +7.0 |
| Non-OSLIS | 53.8 | 56.6 | +2.8 |

Two fairly clear patterns do emerge in the data presented in Table 9. Middle school students in

OSLIS schools had smaller gains (or larger decreases) in all areas except Science. No logical explanation accounts for these negative findings.

Conversely, OSLIS high schools experienced consistently larger gains than Non-OSLIS high schools. This result is fully consistent with findings from past evaluations. Any advantage that participation in OSLIS activities might afford on statewide assessments seem to occur at the high school level.

Table 10. Comparative Analysis of 2002 State Assessments: All Schools

| Test - Grade | Percent Meeting/Exceeding the Standard | | Difference |
|---------------------------|--|-------------------|------------|
| | OSLIS Schools | Non-OSLIS Schools | |
| Reading & Literature-3 | 84.6 | 86.0 | -1.4 |
| Mathematics-3 | 75.2 | 78.3 | -3.1 |
| Mathematics-5 | 73.3 | 76.3 | -3.0 |
| Reading & Literature-5 | 77.7 | 80.4 | -2.5 |
| Math Problem Solving-5 | 57.9 | 57.4 | +0.5 |
| Writing-5 | 36.1 | 36.8 | -0.7 |
| Science-5 | 72.4 | 75.9 | -3.5 |
| Mathematics-8 | 54.4 | 54.3 | +0.1 |
| Reading & Literature - 8 | 62.3 | 62.5 | -0.2 |
| Math Problem Solving - 8 | 45.4 | 45.1 | +0.3 |
| Writing - 8 | 32.6 | 33.8 | -1.2 |
| Science-8 | 58.9 | 60.6 | -1.7 |
| Mathematics - 10 | 41.9 | 39.0 | +2.9 |
| Reading & Literature - 10 | 50.3 | 48.6 | +1.7 |
| Math Problem Solving - 10 | 44.2 | 38.9 | +5.3 |
| Writing - 10 | 46.2 | 45.5 | +0.7 |
| Science-10 | 60.6 | 56.6 | +4.0 |

Comparison of OSLIS and Non-OSLIS schools: 2002

A second analysis was conducted to determine how the performance of students in OSLIS schools compared to the performance of students in non-OSLIS schools.

As can be seen in Table 10, results of this analysis were uneven across grade levels. Students in OSLIS elementary schools performed at lower levels than students in non-OSLIS schools. At grade eight, students in OSLIS middle schools also performed at slightly lower levels than students in non-OSLIS schools. At grade 10, however, students in OSLIS high schools consistently outperformed students in non-OSLIS schools.

These findings are also consistent with past years evaluations and support previous conclusions that the resources made available through OSLIS have the greatest relevance and impact at the high school level where more sophisticated information literacy skills are needed and practiced.

➤ *That these patterns remain consistent across years, even with minimal intervention in terms of training and on-going support is a positive finding.*

**Table 11. Changes in Performance from 2001 to 2002
in OSLIS and non-OSLIS elementary schools: High Poverty Schools Only**

| Test - Grade | Percent Meeting/Exceeding the Standard | | Difference |
|-------------------------------------|---|--------------|------------|
| | 2001 Average | 2002 Average | |
| Mathematics-3 | | | |
| OSLIS | 69.0 | 70.6 | +1.6 |
| Non-OSLIS | 71.4 | 73.8 | +2.4 |
| Reading & Literature-3 | | | |
| OSLIS | 79.5 | 81.0 | +1.5 |
| Non-OSLIS | 83.1 | 83.1 | no change |
| Mathematics-5 | | | |
| OSLIS | 66.6 | 68.2 | +1.6 |
| Non-OSLIS | 70.1 | 71.0 | +0.9 |
| Reading & Literature – 5 | | | |
| OSLIS | 69.8 | 73.0 | +3.2 |
| Non-OSLIS | 74.1 | 75.6 | +1.5 |
| Math Problem Solving – 5 | | | |
| OSLIS | 69.9 | 52.5 | -17.6 |
| Non-OSLIS | 70.1 | 53.4 | -16.7 |
| Writing - 5 | | | |
| OSLIS | 25.2 | 28.7 | +3.5 |
| Non-OSLIS | 27.9 | 30.1 | +2.2 |
| Science-5 | | | |
| OSLIS | 61.3 | 65.8 | +4.5 |
| Non-OSLIS | 65.8 | 70.6 | +4.8 |

Change from 2001 to 2002 in OSLIS and Non-OSLIS schools: High Poverty Schools

The analyses presented in Tables 8-10 are replicated for high poverty schools only and presented in Tables 11-13.

Results presented in Table 11 contain no clear patterns of advantage in high poverty elementary schools. Finding a clear pattern at the elementary level, with no intensive interventions and trainings occurring throughout the year would have been surprising.

**Table 12. Changes in Performance from 2001 to 2002
in OSLIS and non-OSLIS middle and high schools: High Poverty Schools Only**

| Test - Grade | Percent Meeting/Exceeding the Standard | | Difference |
|--------------------------------------|---|--------------|------------|
| | 2001 Average | 2002 Average | |
| Mathematics – 8 | | | |
| OSLIS | 47.2 | 48.2 | +1.0 |
| Non-OSLIS | 46.5 | 46.2 | -0.3 |
| Reading & Literature – 8 | | | |
| OSLIS | 54.7 | 54.8 | +0.1 |
| Non-OSLIS | 54.8 | 56.6 | +1.8 |
| Math Problem Solving – 8 | | | |
| OSLIS | 49.5 | 40.6 | -8.9 |
| Non-OSLIS | 46.6 | 40.7 | -5.9 |
| Writing – 8 | | | |
| OSLIS | 26.5 | 27.8 | +1.3 |
| Non-OSLIS | 28.5 | 29.8 | +1.4 |
| Science-8 | | | |
| OSLIS | 51.8 | 52.3 | +0.5 |
| Non-OSLIS | 55.5 | 54.6 | -0.9 |
| Mathematics – 10 | | | |
| OSLIS | 23.6 | 29.3 | +5.7 |
| Non-OSLIS | 27.2 | 28.1 | +0.9 |
| Reading & Literature – 10 | | | |
| OSLIS | 36.1 | 38.0 | +1.9 |
| Non-OSLIS | 40.1 | 38.9 | -1.2 |
| Math Problem Solving – 10 | | | |
| OSLIS | 39.8 | 32.1 | -7.8 |
| Non-OSLIS | 32.7 | 31.7 | -1.0 |
| Writing – 10 | | | |
| OSLIS | 35.9 | 35.8 | -0.1 |
| Non-OSLIS | 36.8 | 39.6 | +2.8 |
| Science-10 | | | |
| OSLIS | 40.9 | 45.4 | +4.5 |
| Non-OSLIS | 46.2 | 46.8 | +0.6 |

In past analyses, when sample size allowed comparisons, high poverty high schools participating

in OSLIS performed significantly better than similar high poverty high school not participating in OSLIS. As can be seen in Table 12, this clear and strong pattern does not emerge this year.

Table 13. Comparative Analysis of 2002 State Assessments: High Poverty Schools Only

| Test - Grade | Percent Meeting/Exceeding the Standard | | Difference |
|---------------------------|--|-------------------|------------|
| | OSLIS Schools | Non-OSLIS Schools | |
| Reading & Literature-3 | 81.0 | 83.1 | -2.1 |
| Mathematics-3 | 70.6 | 73.8 | -3.6 |
| Mathematics-5 | 68.2 | 71.0 | -2.8 |
| Reading & Literature-5 | 73.0 | 75.6 | -2.6 |
| Math Problem Solving-5 | 52.5 | 53.4 | -0.9 |
| Writing-5 | 28.7 | 30.1 | -1.4 |
| Science-5 | 65.8 | 70.6 | -4.8 |
| Mathematics-8 | 48.2 | 46.2 | +2.0 |
| Reading & Literature - 8 | 54.8 | 56.6 | -1.8 |
| Math Problem Solving - 8 | 40.6 | 40.7 | -0.1 |
| Writing - 8 | 27.8 | 29.8 | -2.0 |
| Science-8 | 52.3 | 54.6 | -2.3 |
| Mathematics - 10 | 29.3 | 28.1 | +1.2 |
| Reading & Literature - 10 | 38.0 | 38.9 | -0.8 |
| Math Problem Solving - 10 | 32.1 | 31.7 | +0.4 |
| Writing - 10 | 35.8 | 39.6 | -3.8 |
| Science-10 | 45.4 | 46.8 | -1.4 |

Comparison of High Poverty OSLIS and Non-OSLIS schools: 2002

A second analysis was conducted to determine how the performance of students in high poverty OSLIS schools compared to the performance of students in non-OSLIS schools this past year.

As can be seen in Table 13, results of this analysis were uneven across grade levels. Students in high poverty OSLIS elementary schools performed at lower levels than students in non-OSLIS schools.

At grade eight, students in OSLIS middle schools performed better in mathematics, but slightly lower than students in non-OSLIS schools on all other assessments. At grade 10, performance in high poverty OSLIS high schools was also inconsistent. No clear patterns emerge through this analysis. Again, finding such a pattern would have been surprising given the limitations of this year's intervention and the timing of professional development activities.

Summary of Student Achievement Results

The 2002-2002 OSLIS TLCF project was not designed around an intensive intervention. Instead it was designed to provide as broad an introduction to, and basic training on, EBSCO and OSLIS resources to new and high poverty schools. As such:

- *The patterns of student achievement found in previous OSLIS projects where intense and ongoing professional development was paired with required information literacy skills instruction and collaboration with teachers on classroom research projects is not present this year.*
- *Some of the advantages seen at the high school level appear to remain, but not to the extent as past years.*

These should not be surprising results, nor viewed as an indicator that the project was less successful as previous projects.

PART 4. SUMMARY OF RESULTS AND CONCLUSIONS

The 2001-2002 OSLIS TLCF Project of Statewide Significance developed both outcome and process indicators of success. The primary goals of the project were: 1) to make available to all Oregon schools on-line databases through the purchase of a statewide license for EBSCO; 2) extend awareness and use of the OSLIS and EBSCO resources to high poverty schools and “last mile” schools; and, 3) to generate enough sense of value in the resources to generate subscriptions sufficient to purchase a statewide license for the 2002-2003 school year.

In addition to these goals, the project was to address the overall goal of the TLCF program, which is to improve student achievement in the content areas. Determining the sufficiency of this year’s design to achieve these important student outcomes was inherent in the project. To address these evaluation questions, data collection and analyses from past OSLIS projects were replicated.

The evidence collected yielded the following results:

- OLSIS sponsored trainings were held throughout the state and included participants from at least 529 Oregon Schools. Of these schools, over half (53.1%) were high poverty schools and nearly 9 out of 10 (87%) were schools new to OSLIS.
- The vast majority of participants at training sessions indicated both a high level of satisfaction with the clarity of content and quality of presentations made during training sessions. The vast majority of participants also indicated a high level of knowledge and skill acquisition related to using the resources themselves. A much lower percentage of participants felt confident in their ability to help others use the resources.
- Participants were able to implement what they had learned at the training sessions, though the extent and level to which implementation took place was far less than in previous years. Certain recurring challenges were faced. Chief among these were lack of time, slow and/or old technology, and database “glitches.”
- The access and use of online databases and OSLIS website resources increase significantly this past year.
- The online resources have been judged to be of sufficient value to be worth paying for. Subscriptions from Oregon schools were more than sufficient to purchase a statewide license for EBSCO for the 2002-2003 school year.
- Specific changes in behavior in the areas of using information technology and improved information literacy skills was observed and documented in both students and staff, though at levels far below previous projects that had specific and intense interventions in these areas.
- Teachers did indicate improved student performance on classroom research assignments and projects, though again at levels far below previous projects that had specific and intense

interventions in these areas.

- The comparative performance in OSLIS **high schools** on the Oregon statewide assessments continued to be strong, both from an internal-longitudinal and external-comparative standpoint.
- Performance at the middle school was fairly weak, both from an internal-longitudinal and external-comparative standpoint. Performance at the elementary level (as measured on the 5th grade assessments) was mixed in both cases.
- The lack of a strong and information literacy focused intervention may have had some bearing on the above results, though this does not explain the widely different results found for the elementary, middle and high school levels. Over the past five years of evaluating the OSLIS project, results at the high school level have consistently been the strongest.

Conclusions

Overall, the 2001-2002 OSLIS project achieved its three main goals as stated in the funded TLCF Application. The design used to effectively achieve these goals did, however, have limitations for producing student level outcomes achieved in previous OSLIS projects. Specifically:

- The 2001-2002 OSLIS TLCF Project of Statewide Significance was *very effective* in reaching high poverty schools in Oregon.
- The 2001-2002 OSLIS TLCF Project of Statewide Significance was *very effective* in reaching “last mile” schools in Oregon.
- The 2001-2002 OSLIS TLCF Project of Statewide Significance was *very effective* in providing awareness and basic skills training to workshop participants across Oregon.
- The 2001-2002 OSLIS TLCF Project of Statewide Significance was *very effective* in promoting the use, and establishing the value/worth, of online database resources to schools in Oregon.
- The 2001-2002 OSLIS TLCF Project of Statewide Significance was *moderately effective* in providing participants with the knowledge and skills needed to help others use the resources.
- The 2001-2002 OSLIS TLCF Project of Statewide Significance was *moderately effective* in achieving levels of information literacy skill development obtained in previous projects.
- The 2001-2002 OSLIS TLCF Project of Statewide Significance was *moderately effective* in achieving levels of classroom performance on research projects obtained in previous projects.

- The 2001-2002 OSLIS TLCF Project of Statewide Significance was *relatively ineffective* in achieving levels of performance on statewide assessments obtained in previous projects.

The design and implementation of the 2001-2002 OSLIS project of statewide significance was very effective in achieving its stated goals. Not unexpectedly, however, the project was less successful in achieving the level of impact on teaching and learning than past OSLIS projects. Additional focus, support and resources at the school level appear to be necessary to have a significant impact on information literacy, classroom performance and student achievement.