

# Tech Prep Needs Assessment

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Program Development and School-to-Work  
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## INTRODUCTION

The Tech Prep Professional Development Needs Assessment was developed to provide the Florida Department of Education with information on the professional development needs of the twenty-eight consortia. In March of 1999, a needs assessment was completed by the Tech Prep Coordinators. All twenty-eight consortia responded, for a response rate of 100%.

The needs assessment focused on professional development needs of three groups: School/District Administrators, Classroom Teachers, and Business/Industry Partners. The coordinators responded to twenty topics, indicating the level of need for professional development for each of the three groups. In addition, respondents were asked to share any other professional development needs that were not addressed in the survey. It is important to reiterate that the needs assessment results are based on the perspectives of each consortium's Tech Prep Coordinator, not the groups themselves. A copy of the needs assessment instrument is included in Appendix A. Complete findings are in Appendix B.

## RESULTS

To determine the most critical areas of need, the coordinators ranked each topic High, Medium or Low for each of the three groups: School/District Administrators, Classroom Teachers, and Business/Industry Partners. Table A, B, and C describe the needs of School/District Administrators, Classroom Teachers, and Business/Industry Partners. Table D reflects the topics of greatest need for all groups. All four tables include the topics for which medium and high were greater than or equal to 75% of the responses. The results of the needs assessment indicate that the three groups have many of the same needs and each has unique needs as well.

### School and District Administrators

There are several topics of particular importance to School and District Administrators. Over half of the respondents indicated that evaluation topics such as *Continuous Quality Improvement, planning and implementing consortium evaluation activities, and data collection and assessment tools* are of importance to school and District administrators. While administrators are typically the stakeholders responsible for establishing and monitoring evaluation plans, both classroom teachers and business and industry partners should play an active role in evaluation. Therefore, while the level of need for the evaluation topics was not as high for classroom teachers and business and industry partners, professional development should be provided for classroom teachers and business and industry partners to foster ownership in the evaluation process.

A moderate need for *Developing Articulation Agreements with Vocational/Technical Centers and Community Colleges* was expressed by over half of the respondents. One respondent wrote, "Please, can we agree on a format for programs of study? A template would be nice." Another respondent expressed the following, "We still need assistance in developing systems to report required data elements. At the community college, how do we report Tech Prep students as course-based for the School-to-Work identifier?" These concerns could be addressed within a professional development session on articulation.

More than half of the respondents indicated that district and school administrators have a need for professional development in the areas of establishing and maintaining connections between business and schools and marketing and community awareness. This need is echoed by a coordinator who noted that "Administration needs visibility with the private sector."

Table A. Needs for School and District Administrators <sup>1</sup>					
	N	Low	Medium	High	Total Medium +High
Overview of the new "Florida Tech Prep Pathway"	27	4%	7%	89%	96%
Demonstration of work-based "best practices"	27	7%	54%	39%	93%
Integration of academic and applied technology education	28	11%	50%	39%	89%
Project-based learning: Overview	28	11%	64%	25%	89%
Demonstration of school-based "best practices"	28	11%	52%	37%	89%

<sup>1</sup>Topics with medium and high needs 75% and above.

### Classroom Teachers

Classroom teachers have a few needs uniquely their own. Topics of significant need for majority of teachers are *Available Career Resources* and *Available Tech Prep Resources*. These topics could be addressed in a publication rather than in a workshop format. Additionally, *Technology Utilization* was identified as a high need for classroom teachers. Implementing professional development in this area greatly depends on the technology available to teachers.

Table B. Needs for Classroom Teachers <sup>1</sup>					
	N	Low	Medium	High	Total Medium+High <sup>2</sup>
Demonstration of work-based "best practices"	28	0%	39%	61%	100%
Integration of academic and applied technology education	28	0%	32%	68%	100%
Demonstration of school-based "best practices"	28	0%	36%	64%	100%
Project-based learning: Designing projects that meet the state's CBCs and Sunshine State Standards.	28	0%	25%	75%	100%
Overview of the new "Florida Tech Prep Pathway"	28	4%	11%	86%	97%
Project-based learning: Overview	28	4%	57%	39%	96%
Available career education resources	28	4%	46%	50%	96%
Authentic/alternative assessment methods	28	7%	68%	25%	93%
Available Tech Prep Internet resources	28	7%	39%	54%	93%
Integrating SCANS into the academic curricula	28	7%	43%	50%	93%
Portfolios as an assessment tool	28	7%	39%	54%	93%

<b>Table B. Needs for Classroom Teachers<sup>1</sup></b>					
	N	Low	Medium	High	Total Medium+High <sup>2</sup>
Technology utilization (e-mail, Internet, web pages, etc.)	28	11%	46%	43%	89%
Components of a portfolio	28	14%	50%	36%	86%
Establishing and maintaining connections between business/industry and schools	27	22%	30%	48%	78%

<sup>1</sup>Topics with medium and high needs 75% and above.

<sup>2</sup> Due to rounding, percents may not add exactly to 100%

## **Business/Industry Partners**

While the needs of business and industry partners do not differ from the needs of classroom teachers and school and district administrators, the delivery of professional development must be different. The planning and designing of professional development for business and industry must be carefully tailored to meet the unique needs of the businesses and be mindful of their time limitations.

<b>Table C. Needs for Business/Industry Partners<sup>1</sup></b>					
	N	Low	Medium	High	Total Medium +High <sup>2</sup>
Demonstration of work-based "best practices"	27	0%	44%	56%	100%
Overview of the new "Florida Teach Prep Pathway"	28	4%	21%	75%	96%
Establishing and maintaining connections between business/industry and schools	28	11%	36%	54%	90%
Integration of academic and applied technology education	28	18%	57%	25%	82%
Demonstration of school-based "best practices"	28	25%	54%	21%	75%

<sup>1</sup>Topics with medium and high needs 75% and above.

<sup>2</sup> Due to rounding, percents may not add exactly to 100%

## **Combined Needs**

Eleven topics were of greatest need to all three groups. These needs represent over half the number of topics on the need assessment. Because of the relevance and timeliness, the Florida Tech Prep Pathway, project-based learning topics, portfolio topics, and integration topics are of significant need to all three groups. These topics will be a great challenge to the professional development facilitators because they require hands-on, working sessions to successfully impact the participants and ultimately impact the students. Other topics of need are Best Practices, both school and work-based, which should provide participants with concrete, complete information that would enable them to implement the Best Practices at their school.

Table D. Needs for All Groups Combined <sup>1</sup>					
	N	Low	Medium	High	Total: Med+High <sup>2</sup>
Demonstration of work-based “best practices”	83	2%	46%	52%	98%
Overview of the new “Florida Tech Prep Pathway”	83	4%	13%	83%	96%
Integration of academic and applied technology education	84	10%	46%	44%	90%
Demonstration of school-based “best practices”	83	12%	47%	41%	88%
Project-based learning: Overview	83	16%	57%	28%	84%
Establishing and maintaining connections between business/industry and schools	83	17%	31%	52%	83%
Project-based learning: Designing projects that meet the state’s CBCs and Sunshine State Standards.	84	18%	35%	48%	82%
Portfolios as an assessment tool	81	20%	47%	33%	80%
Integrating SCANS into the academic curricula	84	21%	38%	41%	79%
Components of a portfolio	82	22%	52%	26%	78%
Authentic/alternative assessment methods	81	24%	63%	14%	77%

<sup>1</sup>Topics with medium and high needs 75% and above.

<sup>2</sup> Due to rounding, percents may not add exactly to 100%

## Recommendations

Professional development needs for district/school administrators and classroom teachers should be the primary focus of professional development organizers. The needs of these two groups will have the greatest impact on Tech Prep students. Professional Development could be delivered in a variety of ways by several sources. One possibility is that Florida’s professional organizations (e.g. Florida Vocational Association, Florida Tech Prep Network) could be utilized to deliver professional development. Another possibility is that regional professional development could be organized. Additionally, professional development could take the form of preconference workshops. Professional development for *Florida’s Tech Prep Pathway* could be designed and prepackaged and representatives from each consortium could be trained to deliver this workshop. This topic could also be delivered in a publication or via the world wide web.

The professional development for business and industry partners should be carefully designed to take place in brief segments of time and specifically address business’ role within a particular topic. This professional development could be designed and prepackaged and Tech Prep Coordinators could be trained to deliver these workshops in their consortium. This would insure that the same quality of professional development is in place around the state.

Additionally, some topics of high need common to both school and district administrators could be clustered to facilitate the coordination of professional development. For example, the demonstration of both *Work-based and School-based Best Practices* could be combined. School and Work-based Best Practices for Business and Industry Partners should focus on only those practices with a direct link to businesses. Hands-on activities that demonstrate the process of organizing and implementing *Best*

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*Practices* as well as examples of student work will assist other consortia in replicating the practice. The topics in this needs assessment could be used to solicit Best Practices based on the high level of interest in topics such as project-based learning, portfolios, integration of academics and applied technology, and integration of SCANS.

*Integration of Academic and Applied Technology Education* and *Integrating SCANS into the Academic Curriculum* are topics that complement each other and could be addressed as one topic for professional development organization purposes. One respondent noted, "Teachers need/want units to teach." As indicated in the responses to this needs assessment, both integration and SCANS are of significant interest to all groups. This may indicate a desire for the three to work together to develop meaningful integrated curriculum which is the basis for a strong Tech Prep program. SCANS, the Secretary of Labor's Commission on Achieving Necessary Skills, are the skills employers have indicated are important in employees. The competencies include resources, interpersonal skills, information skills, systems skills, technology skills, and foundation skills such as basic skills, thinking skills and personal qualities. All of the skills can be infused into academic courses or are already part of most courses. Academic teachers need additional exposure to SCANS and a variety of ideas on how to incorporate them into their lessons.

*Components of a Portfolio* and *Portfolios as an Assessment tool* are topics that could be combined. The components of a portfolio can vary greatly depending on the purpose and audience of the portfolio. Professional development that explores both identifying the portfolios purpose and then the components would be worthwhile. Afterwards participants would benefit from information on *Portfolios as an Assessment Tool*.

Needs for *Tech Prep Internet Resources* and *Career Education Resources* could be met with a publication that identifies the most current resources available. This could be combined with information on Technology Utilization. As mentioned earlier, the varying levels of technology in place in consortia would make this a difficult topic to prepare professional development activities for; therefore, general information could be compiled in the resource manual or via the world wide web.

Appendix A

**Florida Tech Prep Professional Development Needs Assessment**

**Directions:** Below is a list of topics that may address your consortium's needs for professional development. Please note that you are being asked to assess the needs of three audiences: school/district administrators, classroom teachers, business/industry partners. Provide an estimate of the level of need for professional development for each topic and audience by circling L for Low Need; M for Moderate Need; or H for High Need.

**Example:**

Topics	School/District Administrators			Classroom Teachers			Business/Industry Partners		
	L	M	H	L	M	H	L	M	H
1. Historical background and context of Tech Prep									

In the above example the Tech Prep Coordinator indicated that school/district administrators and classroom teachers have a *moderate* (M) need for information about the background of Tech Prep while the business and industry partners have a *high* (H) need for this information.

Topics	School/District Administrators			Classroom Teachers			Business/Industry Partners		
	L	M	H	L	M	H	L	M	H
1. Historical background and context of Tech Prep									
2. Overview of the new "Florida Tech Prep Pathway"									
3. Planning and implementing consortium evaluation activities									
4. Continuous Quality Improvement practices									
5. Data Collection and assessment tools									
6. Integration of academic and applied technology education									
7. Project-based learning: Overview									
8. Project-based learning: Designing projects that meet the state's CBCs and Sunshine State Standards.									
9. Integrating SCANS into the academic curricula									
10. Technology utilization (e-mail, Internet, web pages, etc.)									

Topics	School/District Administrators			Classroom Teachers			Business/Industry Partners		
	L	M	H	L	M	H	L	M	H
11. Available Tech Prep Internet resources	L	M	H	L	M	H	L	M	H
12. Available career education resources	L	M	H	L	M	H	L	M	H
13. Demonstration of school-based "best practices"	L	M	H	L	M	H	L	M	H
14. Demonstration of work-based "best practices"	L	M	H	L	M	H	L	M	H
15. Components of a portfolio	L	M	H	L	M	H	L	M	H
16. Portfolios as an assessment tool	L	M	H	L	M	H	L	M	H
17. Authentic/alternative assessment methods	L	M	H	L	M	H	L	M	H
18. Establishing and maintaining connections between business/industry and schools	L	M	H	L	M	H	L	M	H
19. Designing and conducting marketing and community awareness	L	M	H	L	M	H	L	M	H
20. Developing articulation agreements with vocational/technical centers and community colleges	L	M	H	L	M	H	L	M	H

Please share any additional professional development needs that were not addressed in this survey.

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Appendix B

**Florida Tech Prep Professional Development Needs Assessment**

The data included in this chart indicate a compilation of the level of need for each topic for each of the three groups: School/District Administrators, Classroom Teachers, and Business/Industry Partners. The respondents - Tech Prep Coordinators- estimated the level of need for professional development for each topic and audience by circling L for Low Need; M for Moderate Need; or H for High Need.

Topics	School/District Administrators			Classroom Teachers			Business/Industry Partners			Total		
	L	M	H	L	M	H	L	M	H	L	M	H
	N/%	N/%	N/%	N/%	N/%	N/%	N/%	N/%	N/%	N/%	N/%	N/%
1. Historical background and context of Tech Prep	13 46%	13 46%	2 7%	11 39%	15 54%	2 7%	10 36%	12 43%	6 21%	34 41%	40 48%	10 12%
2. Overview of the new "Florida Tech Prep Pathway"	1 4%	2 7%	24 89%	1 4%	3 11%	24 86%	1 4%	6 21%	21 75%	3 4%	11 13%	69 83%
3. Planning and implementing consortium evaluation activities	5 19%	16 59%	6 22%	11 41%	12 44%	4 15%	13 50%	9 35%	4 15%	29 36%	37 46%	14 18%
4. Continuous Quality Improvement practices	5 19%	15 56%	7 26%	7 26%	14 52%	6 22%	11 39%	9 32%	8 29%	23 28%	38 46%	21 26%
5. Data Collection and assessment tools	6 21%	11 39%	11 39%	11 39%	10 36%	7 25%	16 57%	8 29%	4 14%	33 39%	29 35%	22 26%
6. Integration of academic and applied technology education	3 11%	14 50%	11 39%	0 0%	9 32%	19 68%	5 18%	16 57%	7 25%	8 10%	39 46%	37 44%
7. Project-based learning: Overview	3 11%	18 64%	7 25%	1 4%	16 57%	11 39%	9 39%	13 36%	5 25%	13 16%	47 57%	23 28%

Topics	School/District Administrators			Classroom Teachers			Business/Industry Partners			Total		
	L	M	H	L	M	H	L	M	H	L	M	H
	N/%	N/%	N/%	N/%	N/%	N/%	N/%	N/%	N/%	N/%	N/%	N/%
8. Project-based learning: Designing projects that meet the state's CBCs and Sunshine State Standards.	4 14%	12 43%	12 43%	0 0%	7 25%	21 75%	11 39%	10 36%	7 25%	15 18%	29 35%	40 48%
9. Integrating SCANS into the academic curricula	7 25%	9 32%	12 43%	2 7%	12 43%	14 50%	9 32%	11 39%	8 29%	18 21%	32 38%	34 41%
10. Technology utilization (e-mail, Internet, web pages, etc.)	8 30%	12 44%	7 26%	3 11%	13 46%	12 43%	14 50%	10 36%	4 14%	25 30%	35 42%	23 28%
11. Available Tech Prep Internet resources	7 25%	11 39%	10 36%	2 7%	11 39%	15 54%	13 48%	10 37%	4 15%	22 27%	32 39%	29 35%
12. Available career education resources	6 22%	16 59%	5 19%	1 4%	13 46%	14 50%	15 56%	9 33%	3 11%	22 27%	38 46%	22 27%
13. Demonstration of school-based "best practices"	3 11%	14 52%	10 37%	0 0%	10 36%	18 64%	7 25%	15 54%	16 21%	10 12%	39 47%	34 41%
14. Demonstration of work-based "best practices"	2 7%	15 54%	11 39%	0 0%	11 39%	17 61%	0 0%	12 44%	15 56%	2 2%	38 46%	43 52%
15. Components of a portfolio	7 26%	13 48%	7 26%	4 14%	14 50%	10 36%	7 26%	16 60%	4 15%	18 22%	43 52%	21 26%
16. Portfolios as an assessment tool	6 22%	14 52%	7 26%	2 7%	11 39%	15 54%	8 31%	13 50%	5 19%	16 20%	38 47%	27 33%
17. Authentic/alternative assessment methods	5 19%	20 74%	2 7%	2 7%	19 68%	7 25%	12 46%	12 46%	2 8%	19 24%	51 63%	11 14%

Topics	School/District Administrators			Classroom Teachers			Business/Industry Partners			Total		
	L	M	H	L	M	H	L	M	H	L	M	H
	N/%	N/%	N/%	N/%	N/%	N/%	N/%	N/%	N/%	N/%	N/%	N/%
18. Establishing and maintaining connections between business/industry and schools	5 18%	8 29%	15 54%	6 22%	8 30%	13 48%	3 11%	10 36%	15 54%	14 17%	26 31%	43 52%
19. Designing and conducting marketing and community awareness	4 14%	11 39%	13 46%	9 33%	10 37%	8 30%	10 37%	12 44%	5 19%	23 28%	33 40%	26 32%
20. Developing articulation agreements with vocational/technical centers and community colleges	7 25%	10 36%	11 39%	9 33%	10 37%	8 30%	12 44%	8 30%	7 26%	28 34%	28 34%	26 32%

Please share any additional professional development needs that were not addressed in this survey.

- Thanks for all the assistance you've given us. We still need assistance in developing systems to report required data elements. At the community college level, how do we report Tech Prep students as course-based for the STW identifier? These are the professional development needs we have, e.g. how to develop reporting systems with our institutions.
- Please- can we agree on format for programs of study. A template would be neat.
- Motivating students and teachers to seek articulated credit while still in high school.
- How to utilize STW and TP to meet school's goals and objectives for school and district administrators.
- Administration needs visibility with the private sector.
- Teachers need/want units to teach.
- Business/Industry needs ways to increase profits.
- Tech Prep remains critical to the development of our workforce in the new millennium. The flow of proper information to those who need it is essential to the development of ongoing support. The survey does not segregate information according need (i.e., what's important to educators in various areas is not necessarily important to business leaders.)